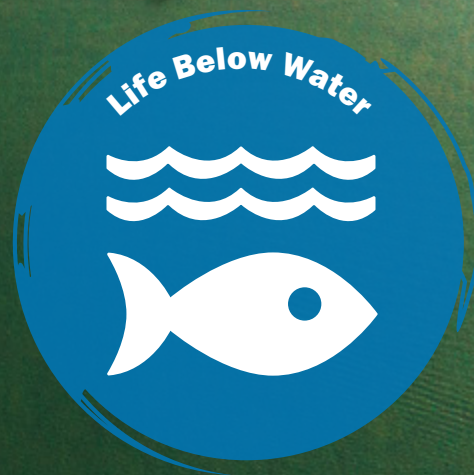


A BETTER WORLD

— VOLUME 6 —



Actions and Commitments in support of the Sustainable Development Goals

Successful science-based fisheries management in the South Pacific

Dr. Sebastián Rodríguez Alfaro, Executive Secretary; Osvaldo Urrutia S., Chairperson,
South Pacific Regional Fisheries Management Organisation (SPRFMO)

The resurrection of jack mackerel fisheries in the South Pacific, following a virtual collapse in the mid-2000s, is a success story that demonstrates how efficient fisheries management is underpinned by science-based decisions.

The story began in 2006, when participating states in a series of international consultations established a regional fisheries management organization in which effective conservation and management measures are based on the best scientific information available, together with the application of a precautionary and ecosystem approach to fisheries management.

The Chilean jack mackerel (*Trachurus murphyi*, Nichols 1920) is widespread throughout the South Pacific, chiefly along the shelf and oceanic waters adjacent to Ecuador, Peru and Chile, as well as the Subtropical Convergence Zone, in what has been described as the “jack mackerel belt”, stretching from the coasts of Chile to New Zealand within a 35° to 50° S variable band across the Pacific.

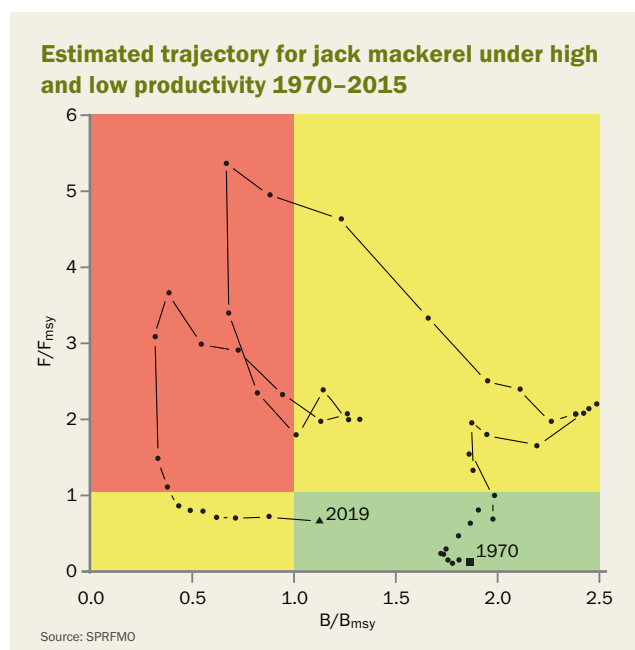
In the mid-1980s, owing to large recruitment influxes, the jack mackerel stock size reached approximately 14 million tonnes of spawning biomass, one of the largest fish stocks in the world, sustaining catches up to 5 million tonnes per year until the mid-1990s. However, due to the large fishing fleets operating in the area in combination with low recruitment, the stock size began to diminish and, by the mid-2000s, the stocks were badly overfished and heading for collapse. A population once estimated to be reaching 14 million tonnes dropped to less than 2 million tonnes in just two decades.

The fate of jack mackerel therefore became a case study of the consequences of lacking a robust international management regime. As a consequence, in 2006, Australia, Chile and New Zealand initiated a process of consultation to enable states to cooperate in addressing the gap in international conservation and management of non-highly migratory fisheries, and the protection of biodiversity in the marine environment in high seas areas of the South Pacific Ocean. The process resulted in a series of international meetings with the objective of discharging the duty of states under international law to cooperate in the conservation and management of living resources in those areas of the high seas. Through these international meetings participants decided to establish a regional fisheries management organization with the ongoing responsibility for this task.

In 2009, the 8th International Meeting adopted the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, together with a resolution to hold a preparatory conference to assist the efficient onset of the work of the Commission of the South Pacific Regional Fisheries Management Organization (SPRFMO) established by the Convention. The SPRFMO was officially established and entered into force in 2012.

A paradigm shift

The first Commission meeting of the SPRFMO was held in New Zealand in 2013, at which point the jack mackerel stock was seriously overfished, with levels ranging between 8 and 17 per cent of estimated unfished levels. The SPRFMO Commission expressed concern at the poor state of the stock and decided that catches in 2013 needed to be restrained to levels that, in accordance with scientific advice, provided a reasonable



Phase plane or “Kobe” plot of the estimated trajectory for jack mackerel under high and low productivity, with reference points set to F_{msy} (the maximum rate of fishing mortality – the proportion of a fish stock caught and removed by fishing, eventually resulting in a population size of B_{msy}) estimated for the time series 1970–2015, and B_{msy} (the biomass that enables a fish stock to deliver the maximum sustainable yield) set to 5.5 million tonnes



Spatial distribution of the Chilean jack mackerel based on catches data (yellow) and survey index (red). The white outline represents the Jack mackerel belt¹

likelihood of an improvement in the spawning biomass. The SPRFMO Commission adopted an explicit rebuilding strategy, and catches in 2013 were constrained across the southeast Pacific Ocean to a maximum of 440,000 tonnes. Furthermore, the Commission adopted its first Conservation and Management Measure for *Trachurus murphyi*, CMM 1.01.

For the first time, SPRFMO members and cooperating non-contracting parties (CNCs) agreed on management measures for international waters. Only fishing vessels duly authorized could participate in the fishery, and effort management limitations in terms of total gross tonnage were implemented. The SPRFMO Commission also set catch limits with the possibility of transferring all or part of catch entitlement among members. Data collection and reporting provisions were agreed, along with obligations to submit annual scientific reports to the Scientific Committee (SC).

Members and CNCs participating in the fisheries implemented a vessel monitoring system. The SPRFMO

Commission also made the assurance that a minimum of 10 per cent of trips should be given scientific observer coverage for vessels participating in jack mackerel fishery, and a roadmap for the scientific committee was approved.

All members and CNCs participating in the fishery were tasked with providing a report describing their implementation of CMM 1.01.

The First SPRFMO scientific committee meeting was held in 2013. Concerning the jack mackerel fishery, the Commission has always accepted and fulfilled the SC's recommendations throughout the range of the stock, which has ensured its rebuilding.

Based on discussions and analyses conducted at SC meetings, a robust assessment of progress takes place annually. Given that there are a number of competing stock structures and at least five jack mackerel management units, each associated with a specific fishery in the southeast Pacific, the SC has been able to provide advice concerning the entire range of the stock. Subgroups such as the Jack Mackerel Sub-group or the Habitat Monitoring Working Group have carried out substantial scientific work in broad areas of knowledge.

Data collected on the environment in relation to the fisheries serves a single purpose, that the conservation and management measures concerning jack mackerel are based on the best scientific information available, including:

- Specific catch data — length, length composition, age-length keys, length frequency, catch per unit of effort and standardization thereof, effort to account for changes in fleet behaviour, abundance index, and others
- Fisheries independent data — observers onboard fishing vessels, surveys using hydro-acoustics to estimate jack mackerel biomass, egg and larvae surveys
- Biological parameters — reproductive biology, maturity-at-age, ageing, and natural mortality.

Scientific Committee (SC) recommendations to ensure the rebuilding of fishing stock

Year	SC Advice	Commission	Catch
2014	440,000	440,000	410,703
2015	460,000	460,000	394,332
2016	460,000	460,000	389,067
2017	493,000	493,000	404,609
2018	576,000	576,000	526,323
2019	591,000	591,000	Not yet available
2020	680,000	Not yet available	Not yet available

Source: SPRFMO Measurements in tonnes



Image: Instituto del Mar del Peru (IMARPE)

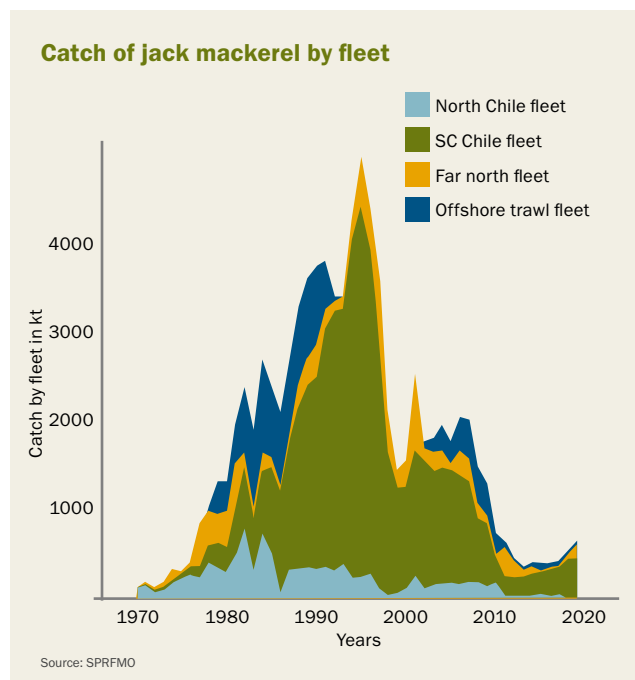
The scientific research ship *Humboldt* carrying out hydroacoustic evaluation to determine biomass, distribution and the various biological aspects of jack mackerel and other pelagic resources

Today, southeast Pacific jack mackerel shows a sustained recovery since the time-series low point in 2010. The population trend is estimated to be increasing. The indications of stock improvement are: a higher abundance observed in the acoustic survey in the northern part of Chile; better catch rates apparent in some fisheries; and an increase in average age in the Chilean fisheries.

Assessment models showed similar trends with an increasing overall biomass, high recruitment in recent years, and low fishing mortality. The estimated biomass has increased in all model configurations and is now well above B_{MSY} (the biomass that enables a fish stock to deliver the maximum sustainable yield). Jack mackerel has therefore been rebuilt to the third tier of the proposed harvest control rule.

Currently, fishing for jack mackerel in the southeast Pacific is conducted sustainably by fleets from the coastal states of Chile, Peru and Ecuador, and by distant-water fleets from various countries including China, Cook Islands, Cuba, European Union Member States, Faroe Islands, Korea, Russian Federation and Vanuatu, all of them operating beyond the Exclusive Economic Zone (EEZ) of the coastal states. At present there is no directed fishery for *T. murphyi* in the central and western South Pacific and around New Zealand, where, if any, incidental catches are very small. Coastal states' vessels undertake their activities with purse seiners while the distant-water fleets consist exclusively of pelagic trawlers.

SPRFMO has steadily grown both in membership and in its reach. Its major success has been the progressive recovery of the jack mackerel stock in the eastern Pacific Ocean, based on the precautionary approach. Much of this success is due to the Commission heeding the advice of the SC, the recovery of the jack mackerel stock having required difficult decision-making throughout.



After eight years of sustainable fisheries management, the jack mackerel fishery in the South Pacific is returning to safe levels. The latest SPRFMO SC advice shows that stocks are improving significantly and, in 2019, the SC estimate was 55 per cent higher than in 2014, a testament to the importance of independent scientific advice. This demonstrates that transparent and proactive Regional Fisheries Management Organizations such as SPRFMO, capable of adopting binding conservation and management measures at the regional level, are a successful tool for fisheries regulation in the high seas.

10TH SCIENTIFIC COMMITTEE MEETING REPORT

26-30 September 2022

Seoul, Republic of Korea

SPRFMO SC10-Report 2022

Report location: <https://www.sprfmo.int/meetings/meeting-reports/>



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Acknowledgements:

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Emily Reynolds, Brooke D'Alberto, Jan Geert Hiddink, Fabrice Stephenson, and Shane Geange are acknowledged for their significant report writing contributions.

The publication also benefited from contributions by the SC10 invited expert Ms Lee Qi.



SPRFMO SC10-REPORT EXECUTIVE SUMMARY

The 10th Scientific Committee Meeting (SC10) of the South Pacific Regional Fisheries Management Organisation (SPRFMO) took place from 26 to 30 September 2022 and was held as a hybrid meeting based in Seoul, Republic of Korea, and chaired by Dr Jim Ianelli (USA). There were 50 in-person participants and over 120 participants attending virtually, amounting to over 170 scientists from 15 SPRFMO Members, representatives from five IGOs and seven NGOs, one invited expert, and the Secretariat. The Scientific Committee (SC) reviewed and assessed 75 meeting documents and provided 41 recommendations (including requests) on a wide diversity of issues.

Annual Reports were received from Australia, Chile, China, Cook Islands, Ecuador, European Union, Faroe Islands (nil report), Korea, New Zealand, Panama (nil report), Peru, Russian Federation, Chinese Taipei, United States of America (nil report), and Vanuatu. The questions and answers exchanged by Members in this regard are included as an Annex to the report.

The SC recommended an item be added to the workplan for developing a data working group to create terms of reference and prioritization for data needs of Members.

The SC discussed Electronic Monitoring Systems, reviewed the experiences of some Members and noted that the gradual implementation of these systems, as a tool to complement pre-existing monitoring systems, should be considered. In addition, development should be carried out under transparent framework policies that account for different stakeholder situations, and with consideration of the technical aspects, demands on human resources, economic, and cultural conditions.

In 2022, two **jack mackerel** related workshops were held: the SPRFMO Jack Mackerel Benchmark Workshop (SCW14) and joint Jack Mackerel Modelling Workshop. The SC acknowledged the success and outcomes of these workshops, in support of the jack mackerel stock assessment.

Considering the estimated increase in jack mackerel biomass, the SC recommended a precautionary 15% increase in 2023 catches (i.e., at or below 1,035 kt) throughout the range of jack mackerel.

Under the umbrella of jack mackerel research, task groups have been established or planned to address specific research on jack mackerel ageing and jack mackerel connectivity. Work on Management Strategy Evaluation is expected to be achieved through a workshop associated with the annual Commission meeting.

Work on **deepwater** issues was largely progressed through intersessional work. With regards to orange roughy, the SC continued to apply a precautionary approach to setting catch limits and recommended a range of TACs for orange roughy for the Commission to consider (using different estimates for the natural mortality rate). The SC recommended that the Commission evaluate the possibility of allowing up to 100% of the orange roughy TAC to be carried forward to future years.

There were no 2021 reported encounters with potential Vulnerable Marine Ecosystems (VMEs). With respect to ID guides for VME taxa, the SC recommended that the updated "Classification guide for potentially vulnerable invertebrate taxa" is used by observers and fishers to identify VME indicator taxa landed as bycatch during bottom fishing operations. The SC recommended that the new habitat suitability models are added to the geodatabase of habitat suitability layers for VME indicator taxa held by the Secretariat so they can be provided to Members and CNCPs to aid in the evaluation of potential encounters with VMEs. The SC also recommended the data-driven approach to generate spatial predictions of abundance for VME indicator taxa for which sufficient abundance data exists and further exploration of the principles-based approach where abundance data are insufficient to apply a data-driven approach.

The SC agreed that, with respect to reviewing historical bycatch in bottom fisheries, the mapping approach is useful for identifying the general areas within Fishery Management Areas (FMAs) where fine-scale spatio-temporal investigations of historical bycatch should be undertaken. The SC noted that the use of per-cell statistics should be treated with caution as they represent information at a smaller scale than is available in some of the data. The SC recommended that for areas within FMAs with a high number of encounter events, or with high bycatch, that fine-scale spatio-temporal investigations of historical bycatch be undertaken. With respect to catchability of benthic bycatch, the SC agreed that the most robust approach to quantifying the catchability of VME indicator taxa would be to compare the biomass of VME indicator taxa landed on deck with estimates of seabed biomass from headline, and other fit-for-purpose, net cameras with suitable resolution and coverage of the trawl footrope. The SC recommended that the feasibility of developing and funding a research programme to achieve robust estimates of catchability for VME indicator taxa in 2023+ should be explored.

The Chair of the Bottom Fishing Intersessional Working Group (BF-IWG) provided a summary of the work carried out and progress achieved by the group throughout 2022. In its advice to the Commission on Deepwater, the SC requested that, at the conclusion of the work of the BF-IWG, the Commission provides clear guidance to the SC on the spatial scale at which significant adverse impacts should be evaluated, and other matters related to operationalising the objective of preventing significant adverse impacts on VMEs. SC10 requested that the Commission develop specific objectives for VME management and provide clarity on the choice of an operational/quantitative threshold defining the level of impact that would constitute a significant adverse impact. The SC also requested further clarification on the acceptable severity (significance of the damage) and extent (spatial proportion of the VME habitat impacted) of the impact, if these differ from the guidelines provided by the FAO.

On **squid** matters, the SC agreed on final edits for the species profile for jumbo flying squid. Regarding the assessment data, Members presented and discussed fishing effort metrics and agreed to use fishing days to generate CPUE indices for the squid jigging fishery. The SC's advice from last year regarding its recommendation on effort control and CMM development was reconfirmed. The SC agreed to add a new item to the multi-annual workplan to develop a task group to coordinate data required for stock assessment models, with a goal of developing a model that can account for variability in spatial patterns by phenotype. The SC also agreed that data, stock structure, and model specification issues need to be resolved before current modelling approaches can be used to advise the Commission on appropriate catch levels. The SC recommended that in the interim, CMM development should focus on monitoring CPUE trends and constraining fishing effort as a precautionary approach.

The SC recommended the development of a Jumbo Flying Squid Genetics and Connectivity Task Group to promote sample (DNA or tissue) exchange to support population genetic analysis considering the three phenotype-sizes throughout the species' distribution. Several tasks for this group were identified including to design appropriate biological sampling levels and coverage.

The SC recommended that Peru's alternative observer programme was suitable and met the requirements for data collection obligations as detailed in paragraph 4 of CMM 16-2022 (Observer programme).

Many Members supported an increase in observer coverage (human and electronic) of the jumbo flying squid fishery in the Convention Area because these levels were below acceptable scientific standards for data collection purposes. Some Members supported that the current observer coverage level is appropriate based on available studies.

The SC conducted a review of the **habitat monitoring** intersessional activities. The habitat monitoring working group agreed on a single classification protocol for fishing vessels deploying digital acoustic systems. The SC acknowledged the work on acoustic data analysis and recommended it continue with a view towards integrating this information with the assessment modeling.

The SC received updates on the **exploratory fisheries** that are operating and/or approved to operate in SPRFMO Area. The Cook Islands advised that there were no fishing activities conducted in 2021 due to logistical issues. The SC recommended that CMM 14b be extended by one year, to 2024.

The Species Composition Task Group reported back on their activities to evaluate patterns in species catch composition to better define the fisheries targeting jack mackerel, redbait, and alfonsino to distinguish between target and bycatch species. Based on discussion of the task groups findings, the SC agreed that (by)catch of alfonsino or redbait are inconsistent with the location, gear proximity to the seafloor, species composition and bathymetry as observed in the targeted fishery on jack mackerel from 2007-2021 in the Convention Area. It was recommended to develop a working definition of the existing fisheries in SPRFMO covered by existing CMMs. The SC also discussed the scope and application of the exploratory fisheries CMM. An informative discussion which focused on the definition of target species, catch and bycatch was held. The SC recommended the development of assessments for species in the Convention Area that are subject to targeted fishing operations, in line with the tier-based assessment approach.

In **other matters**, the SC discussed research and the proposed closure of the Salas y Gomez and Nazca ridges. The SC noted that there is an exploratory potting fishery in the area that is already managed under SPRFMO arrangements, and there are planned research activities for Salas y Gomez and Nazca ridges; therefore, it is premature for the SC to make decisions on closures of this area prior to evaluating the results from this research.

The FAO presented an update on the Deepsea Fisheries (DSF) project and the SC supported collaboration with the DSF Project on these activities and requests the project liaise with the Executive Secretary and SC Chairperson as required.

CPPS proposed a joint workplan under the existing SPRFMO-CPPS MoU. The proposed workplan was accepted as a good way to progress this goal, and the SC requested that the Secretariat work with the CPPS Secretariat to advance the described workplan.

Dr Niels Hintzen was elected as chairperson of the Jack Mackerel Working Group. All other SC working group chairpersons were re-confirmed, with Mr Ignacio Payá elected to co-chair the Squid Working Group alongside Dr Gang Li. The SC Chairperson (Dr Jim Ianelli) agreed to stay on in the role, as no other nominations for this position were received, but recommended that the Commission consider a paid Chairperson that can dedicate more time to SC activities.

The SC acknowledged the support provided by the Commission for scientific activities as well as the voluntary contributions received from the European Union, China and more recently the United States of America. The SC noted that, due to the need to move the timing of the habitat monitoring symposium to avoid other international meetings and secure experts, and new workplan activities, the SC would again need to ask that the Commission agree to carry funds over to the next financial year above the level of the cap specified in the financial regulations.

The location of the next SC meeting was confirmed to be in Panama. The SC noted the number of days will be contingent on how much work is done beforehand and the SC requested Members look to the possibilities of hosting the SC meetings in 2024, 2025 and 2026 with offers to be brought forward to the Commission.



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SPRFMO SC10-REPORT

Report of the 10th Meeting of the Scientific Committee

26 to 30 September 2022

Seoul, Republic of Korea

Adopted 30 September 2022, 19:00 hrs

1 Welcome and introduction

1. Dr Doo Nam Kim, Director, from the National Institute of Fisheries Science of the Republic of Korea made an opening statement and welcomed meeting participants. The SPRFMO Executive Secretary, Mr Craig Loveridge, thanked the Republic of Korea for hosting the 10th meeting of the Scientific Committee (SC10), and for Korea's warm welcome and hospitality.
2. The Chairperson of the Scientific Committee (SC), Dr Jim Ianelli (USA), then opened the meeting and proceedings. Heads of Delegations (HoDs) were asked to introduce themselves and their delegations. A list of participants is available in Annex 2 of this report.

1.1 Adoption of Agenda

3. The SC Chairperson sought proposed changes to the provisional agenda (SC10-Doc01_rev1). After discussion, the final agenda was adopted (available as Annex 3). The indicative meeting schedule was introduced (SC10-Doc04) and made available to the meeting; minor modifications were made to the schedule throughout the meeting. The final schedule is shown in Annex 4.

1.2 Meeting Documents

4. Meeting documentation, location and access was presented. The posted list of meeting documents (SC10-Doc03_rev6) and annotated agenda (SC10-Doc02) were made available and referred to throughout the meeting. Nine documents were submitted late but given their content the SC agreed to accept them and ensured that they would be considered.

1.3 Nomination of Rapporteurs

5. Reporting was supported by Emily Reynolds (USA), Brooke D'Alberto (AUS), Niels Hintzen (EU), Jan Geert (EU), Fabrice Stephenson (NZL), Shane Geange (NZL), Lee Qi (Expert), Gerry Geen (VUT), Ignacio Paya (CHL), the Secretariat, and Working Group Chairpersons.

2 Annual Reports

6. Annual reports were received from Australia, Chile, China, Cook Islands, Ecuador, European Union, Faroe Islands (nil report), Korea, New Zealand, Panama (nil report), Peru, Russian Federation, Chinese Taipei, United States of America, and Vanuatu (nil report) (SC10-Doc14 to SC10-Doc28).
7. The SC agreed to allow another day for discussions on Annual Reports in the margin of the meeting. All reports, including questions, responses, and final report text were expected to be finalised by the close of day on 27 September. The discussions, questions and answers regarding Annual Reports are included in Annex 5 of this report.

2.1 Australia

8. Document SC10-Doc28 presents the Australian fishing activity in 2021 in the SPRFMO Area. Two Australian-flagged vessels fished in the SPRFMO Area in 2021 using demersal longline gears with 728,500 hooks deployed. No Australia-flagged vessel fished using trawl gears. The total retained catch reported in logbooks was 105 t, comprised primarily of sweetlips spp. (*Plectorhinchus* spp.), paddletail seabream (*Gymnocranius euanus*), redthroat emperor (*Lethrinus miniatus*) and other species.
9. Australian logbook data reported three interactions with oceanic whitetip shark (*Carcharhinus longimanus*; dead), which are listed as other species of concern as specified by CMM 02-2022, and 12 sharks and rays in mixed categories that could contain species of concern. No observers were present on the trips that reported the interactions to provide greater taxonomic resolution.
10. Australia achieved 17% observer coverage in 2021. Observers reported 99 kg of non-living ‘benthos’ in 101 separate fishing operations in 2021, including 57.4 kg hydrozoan spp. (Stylasteridae), 24.4 kg of hard coral (Scleractinia), and 8.8 kg of sea fans (Gorgoniidae). The required annual data were submitted to the SPRFMO Secretariat in accordance with Australian’s data confidentiality policies and the relevant SPRFMO Conservation and Management Measures (CMMs).

2.2 Chile

2.2.1 Jack mackerel

11. Document SC10-Doc23 reports that since 2020, the fishing operation on jack mackerel has been carried out exclusively within the Chilean Exclusive Economic Zone (EEZ). During the first half of 2022, the industrial fleet targeting this resource was made up of fifty fishing vessels using purse seines.
12. A progressive increase in the jack mackerel catches has been observed in the 2013 - 2022 period, with a maximum reached in 2021. This trend is explained by the increase of the quota allocated to Chile and the completeness of its extraction, plus transfers of quota from other SPRFMO Members to Chile. The catches have been concentrated during the first half of each year (80% in average of the annual catches), consequently, during the first half of 2022, 540,020 metric tonnes of jack mackerel were caught in the Chilean EEZ, which corresponds to 93% of the national TAC.
13. As of 2016, the size-structure of the catches of jack mackerel have shown a wide range, from seven to 67 cm FL, with specimens concentrated mainly from 26 to 52 cm FL. According to the new criteria for assigning age groups, ages II, III and IV, stand out as the main groups in the age structure for the 2016-2018 period, and, towards the end of the series (2019-2021), ages III, IV, V and VI concentrated the main modes. This is explained, in part, by the availability of schools of jack mackerel near the coast, composed mostly by adult individuals.
14. Finally, it is important to reiterate that, as of January 2020, Image Recording Devices (DRI) have been implemented to monitor compliance with mandatory bycatch reduction plans and other fishery regulation in the entire industrial fleet. In addition, during 2020, the mandatory use of Electronic Logbooks Systems (SIBE) has also been implemented in the industrial fleet to report total catches, bycatch and discards, the locations of fishing sets and other operational information in real time in a set-by-set basis, according to legal requirements. The use of DRIs in the artisanal fleets (required for boats in the range >15m - <18m) has been delayed until January 2024, in response to technical and logistical restrictions involved in implementing these systems in such a diverse and extensive fleet (over 600 vessels). In the artisanal fleets, the fishing information must be delivered in paper logs, although they can also voluntarily use SIBE, for which two pilot projects are being developed in two relevant fisheries. Unlike the industrial sector, in these fleets the development of pilot experiences has already begun in 2022, which is expected to provide the background to make the necessary technical and regulatory adjustments for a successful implementation. To this date, the implementation of these Electronic Monitoring Systems (DRI and SIBE) in the Chilean industrial fleets have been focused on

monitoring compliance with regulations applying to catches, discards and incidental bycatch of seabirds, marine mammals, sea turtles and Chondrichthyes; however, the extension of the use of these tools beyond control, such as the scientific monitoring of fishing activities to gather fisheries dependent data, has begun to be explored recently with the aim of complementing it with traditional human observation programmes in the near future.

2.2.2 Squid

15. Document SC10-Doc24 reports that the jumbo squid fishery has the participation of both artisanal and industrial vessels of Chile. In 2021 the artisanal fleet landed 54,632 tonnes of this resource, representing 98.8% of the national total (55,296 tonnes). The artisanal fleet targeting this resource is made up of 1,647 vessels whose length is equal or less than 18 metres; however, the main fishing operation was carried out by vessels of lengths equal or less than 12 metres, which represented 96.6% of the total number of artisanal vessels, equivalent to 1,591. This type of vessel ($\leq 12\text{m}$) altogether landed 98.81% of the total landings for the artisanal sector.
16. On the other hand, during 2021 the participation of the industrial fleet over this resource was developed as bycatch while targeting other resources, and represented landings of 665 tonnes, representing 1.2% of the total landings for jumbo squid in Chile during 2021 (55,296 tonnes). The industrial landings of jumbo squid involved 32 vessels of which 12 landed more than three tonnes per fishing trip. In addition, of those 12 vessels, nine operated with purse seines (75%) and three (25%) with trawls. Regarding the total tonnes landed by the industrial fleets, and its relationship with the fishing gear used, during 2021, 86.4% corresponded to catches performed with trawls, 13.2% with purse seine and only 0.4% with jigging. During 2021 bycatch of marine mammals, seabirds, or sea turtles was not observed for both fleets. Finally, it is important to note that all catches of jumbo squid were performed in the Chilean EEZ.

2.3 China

2.3.1 Squid

17. Document SC10-Doc21 reports that a total of 476 Chinese squid jigging vessels operated in the Convention Area and caught 422 thousand tonnes of jumbo flying squid in 2021. The active fishing vessels varied from 227 (January) to 476 (December). Fishing days were 78,120 days and decreased sharply when compared with the historical level, which result in a significant increase in catch rate, i.e., 5.4 tonnes per fishing day in 2021. Two observers were designated to perform the observer programme during the 2020-2021 fishing year with studying vessels. A total of 300 fishing days were observed, among which 167 fishing days occurred in 2021. 21,660 squids had been measured from the samples collected by observers and studying vessels.

2.3.2 Observer Implementation

18. Document SC10-Doc22 is updated based on China Observer Programme Implementation 2021 (SC9-Doc29). Two observers as well as the studying fleet were designated to perform the observer programme in 2020-2021. Observers ended the onboard observation mission in April 2021 and were back in ZHOU SHAN Port in June 2021. 167 fishing days and four transshipments were observed. A total of 21,660 squids were sampled or measured, 12,548 of them were sampled by the observers in 2021 on the sea, the others are sampled by the studying fleet. No birds were found to be caught by the jiggers or entangled by the lines. In addition, a sea turtle was wrapped by jig lines during the period of the observations and released alive. The studying fleet continued to perform the observation mission after the observers came back to port.

2.4 Cook Islands

19. Document SC10-Doc33 provides the Cook Islands Annual Report. In 2018, the Cook Islands was granted permission to undertake a three-year exploratory trap fishing operation provided by CMM 14b-2018, which was subsequently superseded by CMM 14b-2020, then CMM 14b-2021. This programme is based primarily on the known seafloor structures above 500m depth, located in the Foundation Seamount Chain (FSC), southeast of French Polynesia, primarily due south of Pitcairn Islands at latitude 30-34 degrees south. To date the Cook Islands has successfully completed four trips in 2019/2020 with new and important biological information collected for lobster (*Jasus caveorum*) and crab (*Chaceon* sp.), though crab remains relatively data poor. There were no fishing activities conducted in 2021 and therefore no catch and effort data were recorded in this Annual Report.

2.5 Ecuador

20. Documents SC10-Doc31 and SC10-Doc32 contain the Annual Reports from Ecuador's fishing activity within its EEZ. Ecuador does not have activity on the high seas of the SPRFMO Area.

2.5.1 Jack mackerel

21. Document SC10-Doc31 covers the details of the jack mackerel fishery. One of the most important fisheries within Ecuadorian waters, generating an important income to the country, is the small pelagic fishes. Thread herring (*Opisthonema* spp.), chub mackerel (*Scomber japonicus*), pacific anchoveta (*Cetengraulis mysticetus*), frigate tuna (*Auxis* spp.), round herring (*Etrumeus teres*), sardine (*Sardinops sagax*), anchovy (*Engraulis ringens*) and jack mackerel (*Trachurus murphyi*) are the most important species caught by the purse-seine vessels of various characteristics and tonnage. The smaller boats, the majority of which have wooden hulls and little mechanisation, unload on the beaches and/or fishing facilities located in the different fishing ports along the Ecuadorian coast. The product, depending on the species, is mainly intended to produce fishmeal, followed by canning and direct human consumption (fresh – frozen). For 2021, the landings of jack mackerel were 0.7 tonnes. The size structure ranges from 14 to 66 cm TL, denoting the presence of three groups of size classes (19 - 31, 32 - 51, and 55-65 TL), as well as two strong modal groups (28 and 29 cm TL).

2.5.2 Squid

22. Document SC10-Doc32 covers the details of the squid fishery in Ecuador. The jumbo squid *Dosidicus gigas* (d'Orbigny, 1835) represents in the cephalopod class, the species of greatest commercial and food importance within Ecuadorian waters, it is highly migratory and is distributed in the Eastern Pacific Ocean (Keyl et al., 2008). It is an unstable and variable resource in annual biomass (Ibañez et al., 2015), its exploitation in Ecuadorian waters is under development and is influenced by the Humboldt current. The artisanal fishing fleet caught jumbo squid for bait, using hand lines with jiggers in directed fishing, while incidental fishing was carried out with driftnets or surface gillnets.
23. In 2021, a total landing of jumbo squid of 1,896 t was estimated in the Ecuadorian coast, decreasing by 38.2% in relation to 2020. The province of Santa Elena registered the highest landings (68.1%). A total of 2,782 organisms were analysed between females and males with a size range that fluctuated between 12 and 50 cm mantle length (ML) for combined sexes. In the mantle length (ML) frequency distribution, there is a presence of three groups of size: the first with a range between 12 and 24 cm ML and a mode of 19 cm ML, the second group between 25 and 33 cm ML with a mode of 29 cm ML and the third group between 34 and 50 cm ML with a mode of 39 cm ML.

2.6 European Union

24. Document SC10-Doc20 presents the European Union fishing activity in 2021 in the SPRFMO Convention Area and the observer programme implementation in 2021. The data on catches of jack mackerel

(*Trachurus murphyi*) by three European Union trawlers in 2021 covers the period from April to September. Total catch in 2021 was just over 51,182 (39,528 CJM) tonnes. Two scientific observers were deployed on two European Union fishing vessels in the period from end of March until mid-August 2021.

25. A short section on the Pelagic Freezer-trawler Association (PFA) self-sampling programme has been included in the report, demonstrating the main results of the self-sampling activities that cover all trips by European Union vessels in the Area.
26. A comparison of the European Union observer data on jack mackerel with the PFA self-sampling data has been submitted to the SPRFMO SC (SC10-JM03). The document first assessed the quality and reliability of the self-sampling data in trips where both observer data and self-sampling data were available. Over the years 2015-2021, 16 trips were covered by both self-sampling and scientific observers. In total, the fishery took place during 16 quarters of which 12 had at least some observer coverage and four quarters had no observer coverage (but did have self-sampling coverage). The overall number of length measurements between the observer trips (61,875) and the self-sampling trips (66,952) up to and including 2021 is comparable. The self-sampling programme samples fewer fish per trip (1,632 compared to 3,867 in observer trips) but samples more trips than in the observer programme (41 vs. 16). The resulting length distributions by trip were found to be comparable and of sufficient quality.
27. A comparison of the overall length compositions by year derived from all self-sampled trips or derived from the raised observer trips, demonstrates that the self-sampling covers a wider part of the fishery (season, area) which explains some of the differences between the two data sources. Thus, self-sampling provides a substantial improvement in the coverage of the fishery and thereby a more realistic length composition to be used in the assessment of jack mackerel. The combination of self-sampling and observer trips allows for quality control of both programmes while being able to assure a wide coverage of the fishing season.
28. During the Jack Mackerel Benchmark Workshop (SCW14), developing a protocol was decided for inclusion of self-sampling data for the European Union fleet for those quarters where no observer trips were carried out. Document (SC10-JM03) described that protocol and the selection of quarters for which the self-sampling data will be used. For SC10, using 2021_Q2, 2022_Q2 and 2022_Q3 from the self-sampling data is proposed.
29. Exploratory fishing for toothfish was undertaken by the Spanish vessel TRONIO in accordance with CMM 14e-2021, where nearly 75 t of toothfish were caught in 27 longline sets. Fishing took place in the George V Fracture zone in the SPRFMO Area. Due to human error, three sets were set at less than 3 nm distance from previous sets. Biological samples were taken, seabird observations were carried out via Electronic Monitoring (EM) and oceanographic parameters were collected. Bycatch of seabirds, marine mammals and reptiles was zero. Only minor amounts of VME indicator taxa were recovered from eight out of 27 lines. A detailed survey report was presented to the SC (SC10-DW08).

2.7 Faroe Islands

30. Document SC10-Doc34 contains the nil Annual Report from the Faroe Islands.

2.8 Korea

31. Document SC10-Doc19 provides the Annual Report for Korea. Korea provided no update on fishing data or information in 2021, since there were no Korean fishing activities in the Convention Area. However, the report contained updates on research activities on jumbo flying squid.
32. Korea conducted genetic analysis of jumbo flying squid (*Dosidicus gigas*) using single nucleotide polymorphisms to understand the stock genetic structure of *D. gigas* in the Convention Area (SC10-SQ12). A total of 614 muscle tissues were collected in 2019 by scientific observers in the high seas

fishing ground off Peru. One of the samples was used to build a draft whole genome with de novo assembly due to no reference sequence information for jumbo flying squid. The draft genome size was identified as approximately 5 million contigs with a total assembly length of 5 Gb of which the N50 length was at around 1.5 kb and average length at 994.32 bp. As a result, the mapping rate was improved from less than 20% to greater than 82%. The structure analysis on the internal population information for 79 GBS samples showed no difference at $K=2,3,4$. The analysis suggested that there were no significant differences in sex and maturity by sampled location.

33. In addition, the Korean Annual Report informed the SC that the Commission had approved the Korean scientific observer programme in 2022 after its accreditation assessment.

2.9 New Zealand

34. Document SC10-Doc17 provides an update on New Zealand's fishing activities in the SPRFMO Convention Area in 2021. Five New Zealand vessels fished in the SPRFMO Area, one using trawl methods and four using bottom line methods. Overall catch and effort remained low, with 17 trawl tows completed taking 22 tonnes of fish. The majority of the trawl catch was orange roughy (20 t), with a small amount of seal shark (1 t). There were 97,000 hooks set using bottom line methods with a total catch of 43 t, the majority of which was bluenose and wreckfish (20 t and 7 t respectively). New Zealand met all requirements for observer coverage, with 100% coverage in trawl fisheries and 12% of hooks observed in bottom line fisheries. Overall, 649 fish were measured by observers including 56 orange roughy and 593 bluenose. Unscaled length frequency information for main species caught is provided in the report. Most research activities by New Zealand in 2021 were continuations of previous projects and additional work to support the ongoing review of the bottom fishing CMM. New Zealand also provides information on a range of ecosystem considerations. These include interactions with seabirds, marine mammals, reptiles, other species of concern, non-target fish and elasmobranch catch, and catch of benthic organisms. Information on abandoned, lost, or discarded fishing gear is also provided. There was one reported seabird capture on New Zealand vessels in 2021. There were no reported encounters with potential VMEs pursuant to CMM 03-2020 (Bottom Fishing).

2.10 Panama

35. Document SC10-Doc18 provides a nil report from Panama.

2.11 Peru

2.11.1 SPRFMO Area (Peru)

36. Document SC10-Doc26 includes a description of the fleet composition within the SPRFMO Convention Area, as well as the fishing activities and catches of jack mackerel, jumbo flying squid and chub mackerel for the period January 2021 - June 2022. It also reports trends in catches and fishing effort for the jack mackerel and jumbo flying squid fisheries. Between January 2021 and June 2022, no fishing or maritime research activities targeting non-highly migratory species have been conducted by Peruvian-flag vessels in the SPRFMO Convention Area. Therefore, there are no data collection or seagoing research activities to report, no relevant biological information pertaining to fish species, no seabird mitigation measures, seabird interaction observations, or ALDFG (abandoned, lost, discarded, or retrieved fishing gear).

2.11.2 ANJ (Peru)

37. Document SC10-Doc27 describes the Peruvian environmental conditions as well as the distribution of jack mackerel which has been characterised by a denser distribution far from the coast, much higher abundance indices in the period 2021-2022, greater availability for the industrial and artisanal purse seine fleet and higher jack mackerel catches during the second half of 2018 and throughout 2019, 2020, 2021 and the first half of 2022. Regarding the reproductive cycle, the 2021-2022 cycle has been

considered well above normal. Diverse main size groups with a low incidence of juveniles were observed in the commercial catches throughout 2021 and the first part of 2022, while juveniles as small as three cm (in total length) were observed during summer research surveys in 2020 and 2021. This report also includes an updated assessment with the JIM model, conducted by IMARPE (Instituto del Mar del Perú) based on the most recent information and data available up to June 2022. Finally, recent observations and assessments confirm the increasing trend in the biomass estimates observed since 2016 as well as the overall healthy situation of the Peruvian jack mackerel stock considering the natural low abundance regime through which the stock appears to have been going through during the last two decades.

2.12 Russian Federation

38. Document SC10-Doc14 provides the Annual Report for the Russian Federation. The Russian fisheries in the SPRFMO Area in 2021 began on 9 March. In 2021, only one Russian trawler “ADMIRAL SHABALIN” worked in the high seas of the Southeast Pacific. The total catch was 12,151 t for jack mackerel and 1,905 t for chub mackerel from 132 fishing days. The average catch from March to October 2021 was 11.6 t per hour. The highest CPUE was recorded in June and July – 15.3 t per hour. A Russian scientific observer was onboard the trawler “ADMIRAL SHABALIN” during the whole period of activities in 2021. In 2021, 22,522 specimens of jack mackerel were measured, 2,388 specimens were analysed, and 779 specimens were taken for age sampling by the scientific observer. The amount of collected material for chub mackerel was composed of 18,816 measured specimens and 2,101 analysed specimens with 700 specimens taken for age sampling.

2.13 Chinese Taipei

39. Document SC10-Doc25 provided an update on fishing activity by Chinese Taipei vessels in the SPRFMO Convention Area. Jumbo flying squid is widely distributed in the eastern Pacific Ocean and has been targeted by Chinese Taipei’s squid-jigging fleet since 2002. The number of operating fishing vessels varied from two to 29 during 2002–2021. Two fishing vessels were involved in this fishery in 2021, producing 665 tonnes of Jumbo flying squid. The nominal CPUE was 3.52 t/vessel/day, which was higher than that in 2020. The major fishing grounds were located around 13°–18° S and 80°–85° W, while certain vessels operated in the equatorial waters (around 1°–4° S and 95°–106° W). Data of logbook, transshipment, and landing have been collected entirely and submitted to the SPRFMO Secretariat. Research on the stock status and spatial dynamics of jumbo flying squid have been conducted. Using catches by weight category, the monthly length composition of Jumbo flying squid was also calculated. To comply with SPRFMO CMM 18-2020 and CMM 16-2022, one observer was onboard one squid-jigging vessel in June 2021. The fishing season ended in November 2021, while the observed vessel returned to the home port in July 2022. The observation data and squid samples were examined.

2.14 United States of America

40. Document SC10-Doc15 provides a nil report from the United States of America.

2.15 Vanuatu

41. Document SC10-Doc16 provides a nil report from Vanuatu.

3 Commission guidance and intersessional activities

3.1 SC multi-annual workplan

42. The 2022 SC multi-annual workplan was posted as SC10-Doc05. The 2023 workplan was developed during the meeting sessions. The SC reviewed the tasks and developed a draft 2023 multi-annual workplan (Annex 6).

3.2 Review of intersessional work

43. SC10-Doc06_rev1 is a compilation of the reports of the six SC web meetings held prior to the SC10, as well as the numerous web meetings held by the SC Working Groups. It was agreed that this document is a good source for content for the SC report.

3.3 Secretariat SC-related activities

44. The Executive Secretary presented SC10-Doc07, which summarised the activities conducted over the past year by the Secretariat in support of SC work. These activities include external meetings, project inputs and data releases.
45. The SC appreciated the work of the Secretariat, including the efforts to correct scientific papers to ensure that published information is factual. The SC also wished to acknowledge that the Secretariat's support for the scientific activities of the working groups was critical. The SC also acknowledged the support of Marianne Vignaux who was contracted to coordinate and assist with the SC intersessional activities.
46. The SC noted the CPUE analyses carried out for jack mackerel, and more recently for squid, and encouraged any activities that the Secretariat can take on to develop these indices. A suggestion was made to consider the development of a Data Working Group to help with providing data along a number of fronts. **The SC:**

recommended that a workplan item be specified to create terms of reference and prioritization for data needs of members. The SC noted the importance of the Secretariat's work to support data and science needs of SPRFMO and appreciated the direction and activities taken in recent years.

3.3.1 Proposed Guidelines for SC Working and Task Groups

47. The Secretariat introduced SC10-Doc11 which describes the current framework for the working groups and task teams within the SC. The SC appreciated the information contained within the document and the consideration of other RFMO frameworks. During the discussion that followed, the working group chairs provided their experiences. The SC confirmed it was comfortable with the current arrangements. The SC greatly appreciated the support that was provided by the contracted SC Intersessional web meetings Coordinator and the Data Manager. The Members were especially appreciative of the quality of the reports that were produced which greatly facilitated their work. The SC also recognised the benefits of having people available that possess in-depth knowledge of the SC activities and the functioning of SPRFMO in general.

48. The SC recalled that last year SC funds were used to ensure adequate support was available for the intersessional meetings. The SC noted that other RFMOs often employ a Science Manager and:

requested that the Commission consider the Secretariat staffing level, and its ability to support the SC given the recent 24 intersessional workshops, and expanded ambition as reflected in the multiannual workplan.

49. Many Members supported maintaining the intersessional work to cope with the large number of tasks and ensure that the annual SC meeting is as efficient as possible. However, Members also expressed concern regarding the number of web meetings that were held as well as the proximity of such meetings to the SC. **The SC:**

recommended that a schedule for all planned intersessional SC meetings be developed within a month of the Commission meeting with consideration for these concerns.

3.4 Electronic monitoring to support the Commission's objectives

50. Document SC10-Doc29 reports that within the framework of the implementation of a fisheries management strategy with an ecosystem approach, and following the recommendations of FAO and other fisheries forums, aimed at guaranteeing the oceans sustainability and food security, Chile has developed a process of diagnosis, reduction and control of discards and incidental bycatch in its national fisheries. In the industrial fleet the coverage is 100% with 10% review of information. In the small-scale fleet, the coverage is around 30%. This process has involved the joint efforts of the regulatory, research and control agencies, along with a collaborative work with the fishing users, leading the country to the gradual solution of the problem.
51. Considering the challenges of controlling and recording discards and incidental bycatch at sea, the mandatory use of EM (DRI and SIBE) was recently incorporated to control compliance, with differentiated application depending on the type of fleet, together with the maintenance and enhancement of human observation programmes for scientific purposes.
52. These new technologies to collect, record, manage and analyse fishing data are providing a set of possible solutions to update and modernise the fisheries data systems of the country and to significantly expand the collection and analysis of information, also for research and management, creating an opportunity to coordinate and enhance the work of the fisheries management agencies, around the maximisation of the use of the information that can be obtained from the new technological monitoring tools.
53. Chile noted the current challenges with collecting data on physical hard drives, and specifically, the logistics of collecting them, the time delay in receiving data, and the high costs of data storage. They are exploring the use of cloud-based technologies to mitigate costs and obtain data in real time. Although EM have largely been used for compliance in Chile, the potential uses of EM data to better inform science and management have become apparent. Explorations will be carried out in the coming years to evaluate these data for scientific purposes.
54. China agreed that E-monitoring provides a very useful tool to monitor the fishery and collect data and information for scientific and compliance purposes. In recent years, China is developing a E-logbook system for the squid jigging fishery, as well as other distant-water fisheries, now this system is being tested and has covered about 90% of the Chinese squid jigging vessels in 2022. This E-logbook system is planned for implementation on all the high seas fishing vessels of the distant-water fisheries on 1 January 2024. EM is the direction of the future development of monitoring fishing activities. China is

also exploring EM for the distant-water fisheries when considering some shortcomings of human observers, however there are also some challenges for EM such as species identification and massive data storage and transmission onboard.

55. Australia has a similar programme to Chile in its domestic fleet. Australia also acknowledged the cost associated with hard drives and storing data. Australia supports ongoing consideration and gradual implementation of EM and will be providing a report on its experiences to the SC next year.
56. The HSFG confirmed that New Zealand was also implementing EM and artificial intelligence to review the footage. They also confirmed that in some cases carrying an observer on a small vessel meant that crew numbers needed to be reduced. They further noted that cameras are being used on nets with artificial intelligence (AI) ability to determine fish species viewed in real time in the bridge so the captain can decide if he wants that species or to avoid it.
57. To visualise the functioning of the EM system in Chilean fleets, a video of showing the operation of the DRI system (cameras onboard) in an industrial jack mackerel vessel was exhibited. The video summarised the different stages of the fishing operation and its review using the “REVIEW” software, which allows to graph and follow the geographical position and speed of the vessel in a line time, throughout the entire trip, and also the different stages of the operation, along with the use of marks to indicate specific events in the review, such as setting, hauling, bycatch, and catch handling, among others. This review is transformed by the software into a database that is later analysed to generate compliance reports. The images are compared against the information reported in the electronic logbooks for inconsistencies.
58. The SC noted the following related to EMS implementation:
 - a. The SPRFMO CMM 16-2022 (Observer Programme) notes that collecting robust scientific information of fishing activity in the Convention Area and its impacts on the marine environment is important to adopt and implement effective and timely CMMs.
 - b. The CMM 16-2022 also acknowledges that the Commission, with the advice of the Scientific Committee, could explore minimum standards for the implementation of EM.
 - c. The experience gained by Chile allows recommending the SPRFMO, exploring the use of these tools to improve the monitoring’s coverage of the fishing fleets operating in the Convention Area, since they constitute safe and impartial systems based on currently available, proven and cost-effective technologies.
 - d. However, it is recognized that the use of these systems requires intense work on the design of current monitoring programmes, on the use of complementary technologies such as computer vision (CV) or machine learning (ML), and its integration with traditional human observer programmes in use.
 - e. Above all, the experience of Chile suggests that the gradual implementation of these systems, under transparent framework policies should consider the different stakeholders’ situations. Technical, demands on human resources, economic, and cultural conditions vary and should be considered so that EM can be a successful tool to complements the pre-existing monitoring systems.

4 Jack mackerel

4.1 Review of intersessional activities and meeting documents

59. An overview of intersessional activities is provided in SC10-Doc06_rev1.

4.1.1 Joint Jack mackerel model workshop

60. A joint jack mackerel model (JJM) workshop was held online from 7 to 9 June 2022 and attended by 33 participants. The aim of the workshop was to broaden the knowledge base on the assessment process and to improve the transparency of the process. The SC acknowledged the important contributions by Ms Lee Qi and Dr Jim Ianelli who prepared for the workshop and guided the discussions. It was agreed that making reference and lookup tables for the labels in the model files (especially for the output file) would facilitate broader uptake of the model. In addition, specific assessment tasks could be shared among Members to better contribute to the assessments in the future.

4.1.2 Jack Mackerel Benchmark Workshop

61. A jack mackerel benchmark workshop (SCW14) for the jack mackerel stock assessment was successfully completed in 2022. The main objective of the workshop was to integrate the new data that were based on the updated aging criteria developed by Chile into the assessment, including age compositions and weight-at-age in the catches of Chile and the offshore fleets, and in the acoustic surveys of the central and northern areas of Chile. As a consequence of this update, a new maturity-at-age vector was estimated, and a new value of natural mortality has been derived ($M=0.28$). Overall, the changes caused by the new aging criteria led to the understanding of a faster-growing species that is earlier to mature. In addition, CPUE indexes have been updated to include a factor for increases in the efficiency of fishing effort (“effort creep”). For the Chilean and Peruvian CPUE indices, this efficiency factor was a preliminary guess (1% per year). Reference points have also been updated. In addition, for the single-stock hypothesis a new reference point has been derived for a limit biomass, B_{lim} , which was estimated at 8% of unfished spawning biomass. Compared to the most recent assessment using the ‘old’ age composition data, the perception of stock is relatively unchanged and is estimated to be well above B_{MSY} and fishing mortality is well below F_{MSY} .
62. The SC noted that additional analyses regarding the standardisation of metrics between data and growth parameters used in the assessment have been carried out by Peru dealing with the 2-stock model.
63. Chile noted that growth data had been revised and new models could be used in the assessment (SC10-JM06 and SC10-JM07). The SC noted that development of growth models is anticipated as part of the jack mackerel ageing task group and will consider updates to alternative growth models by regions.

4.1.3 Jack mackerel intersessional meeting

64. An online jack mackerel intersessional meeting was held on 13/14 September 2022. A number of papers submitted to SC10 were already presented during that intersessional meeting (SC10 JM01, JM02, JM03, JM04 and JM05) and summarised below. Such pre-SC meetings are an effective way of addressing papers that are submitted to the SC.

4.1.4 *Trachurus murphyi* catch history

65. The Secretariat has provided an updated historical catch data series to 2022 as Annex 1_rev1 in document SC10-JM01_rev1. There are no notable changes to the historical catch history. As final annual catch figures are not due until 30 September, in many cases the 2021 data remain estimates. Initial 2022 catch estimates, by fleet, have been provided by calculating the ratio of annual catch figures to the cumulative total catch reported through July of the corresponding year, on an annual basis. These ratios were then averaged to produce a multiplier for the 2022 catch estimates through July, to estimate total annual catches for the 2022 calendar year. The time frame over which these ratios were calculated varied by fleet, due to changes in fishing behaviour through time. Specifically, for Fleets 1-3 the mean ratio from 2019-2021 was used, and for Fleet 4, the mean ratio from 2017-2021 was used.

66. This approach for estimating the total annual catches for the present year (i.e., 2022) differs from the approach used in previous years, because averaging over the full time series (2010-2021) no longer seemed appropriate. For many of the fleets, fishing patterns throughout the year have changed considerably, and therefore a more tailored approach was predicted to yield more realistic estimates. It should be noted, that given these changes, estimating catches within the current year may be more accurate if considered on a flag/fleet basis.
67. Members are asked to either accept these initial estimates or provide adjustments based upon their knowledge of the current fishing season. Previous estimates for total current catches have always been within about 10% of the final figures. Last year's SC9 2021 estimates for total catch show a relative underestimation of 0.9% overall, with the previous 5 years having initial annual catch estimates deviating from the final figures in the range of -1 to 10.1%, with a mean of 3.4%. Boxplots showing historical monthly catches for each of the major fleets were presented and compared with the current monthly catches from the first half of 2022. The paper also provided a short explanation of the *Trachurus murphyi* (CJM) catch history as used in the SPRFMO jack mackerel stock assessment. Section 6 has been included to show information provided by IATTC on catches of epipelagic forage fishes (including *Trachurus* spp) for the entire IATTC area.

4.1.5 CPUE standardisation for the offshore fleet

68. Document SC10-JM02 provided an update on the CPUE standardisation for the offshore jack mackerel fleet (i.e., Fleet 4). Prior to 2018, two offshore CPUE series have been used in the assessment of jack mackerel: the standardised Chinese CPUE and the nominal offshore fleet CPUE (European Union, Vanuatu, Korea, Russia). During the 2018 benchmark assessment, the nominal offshore CPUE was converted into a standardised CPUE series, using GLM and GAM modelling. Since 2019, the standardised offshore CPUE also includes data from China.
69. A description of the data available for the analysis is presented. The final GAM model consists of a number of discrete factors (year, contracting party, month and El Niño Effect) and a smoothed interaction between latitude and longitude. The working document focused on calculation of the standardised CPUE index for the SPRFMO SC10 meeting. The standardised index includes an average efficiency creep of 2.5% in line with the procedure agreed during the benchmark workshop (SCW14). The standardised CPUE in 2021 was estimated to be substantially higher than the CPUE in 2019 (there was no offshore fishery in 2020) and close to the highest CPUE of the time series.

4.1.6 Comparison of European Union self-sampling and observer data

70. Document SC10-JM03 provided a comparison of the European Union observer trips in the jack mackerel fishery with the European Union self-sampling data to assess the quality and reliability of the self-sampling data in trips where both observer data and self-sampling data were available. Provided that the quality and reliability of the self-sampling data is satisfactory, then those data can be used to supplement the observer data for quarters where no observer trips have been realised. The European Union pelagic freezer-trawler fleet has been carrying out a self-sampling program on the freezer-trawler fleet since 2015. Within the fishery for jack mackerel in the South Pacific, the self-sampling program has been carried out on all trips. The European Union scientific observer program for that fishery is targeted to cover at least 10% of the effort. Over the years 2015-2021 the analysis has shown that around 35% of the catch has been covered by scientific observers. Over these years, 16 trips were covered by both self-sampling and scientific observers.
71. The overall number of length measurements between the observer trips (61,875) and the self-sampling trips (66,952) up to and including 2021 is comparable. The self-sampling program samples fewer fish per trip (1,632 compared to 3,867 in observer trips) but samples more trips than in the observer program (41 vs. 16). In addition, self-sampling data is available for the 2 quarters in the current year (2022) for which no observer data is yet available. A comparison of the overall length compositions by

year, derived from all self-sampled trips or derived from the raised observer trips, demonstrated that the self-sampling covers a wider part of the fishery (season, area) which explains some of the differences between the two data sources (SC10-JM03). Thus, self-sampling provides a substantial improvement in the coverage of the fishery and thereby a more realistic length composition to be used in the assessment of jack mackerel. The combination of self-sampling and observer trips allows for quality control of both programs while being able to assure a wide coverage of the fishing season.

72. During the Jack Mackerel Benchmark Working Group (SCW14), developing a protocol for inclusion of self-sampling data for the European Union fleet for those quarters where no observer trips were carried out was decided. SC10-JM03 describes that protocol and the selection of quarters for which the self-sampling data will be used. For SC10, it is proposed to use 2021_Q2, 2022_Q2 and 2022_Q3 from the self-sampling data.

4.1.7 Pelagic Freezer-trawler Association (PFA) self-sampling report

73. In document SC10-JM04, a description is presented of the fisheries carried out by vessels belonging to members of the PFA within the SPRFMO Area from 2016 to 2022. During the fisheries in the Pacific, the self-sampling programme has been carried out during all trips and all hauls. Catch distributions and length compositions by quarter and division are presented for jack mackerel (CJM), chub mackerel (MAS) and southern rays bream (BRU). No PFA fishery was carried in the SPRFMO Area in 2020, due to the global COVID-19 crisis. The jack mackerel fishery takes place from March through to September. Overall, the self-sampling activities for the jack mackerel fisheries during the years 2016-2022 (up to 16/07/2022) covered 41 fishing trips with 1,757 hauls, a total catch of 115,484 tonnes and 66,950 individual length measurements. Compared to the previous years, jack mackerel in the catch in 2021 and 2022 have been taken much more northerly. Bycatches of chub mackerel (MAS), southern rays bream (BRU) and blue fathead (UBA) are being taken in the fishery for jack mackerel. During the years reported, 1,348 hauls with chub mackerel (MAS), 377 hauls with southern rays bream (BRU) and 311 hauls with blue fathead (UBA) have been analysed as part of the programme.

4.1.8 CPUE abundance index in south-central Chile - Update and proposed correction

74. Document SC10-JM05 reports on the CPUE abundance index provided by Chile. The abundance index based on the CPUE model of the south-central Chilean purse seiner fleet is one of the main indices used in the jack mackerel stock assessment model. This index was updated to the first quarter of 2022. The CPUE model uses vessel hold capacity both in independent and dependent variables. To evaluate the effect of the use of vessel hold capacity in the CPUE model, a new model based on the catch with vessel hold capacity as covariable was fitted. The two models estimated a similar abundance index with an important recovery trend in the last years.
75. The relationships between the CPUE index and hydro-acoustic survey results in the south-central area were analysed, including acoustic biomass, acoustic density, and fish distribution area. Acoustic surveys found the fish highly concentrated close to the coast in the last two years. A ramp model was fitted between the CPUE index and biomass. CPUE index tends to increase with acoustic density until an asymptotic level. A linear model was fitted between the CPUE index and area (excluding the last two years), and this was proposed to correct the CPUE index. This correction reduced the recovery rate in the last two years. Having a precautionary approach was recommended because the CPUE index seems to overestimate stock recovery.

4.2 Jack mackerel stock assessment

76. From the web preparation meetings, and recognising that the benchmark assessment has occurred in July 2022, the SC agreed that the assessment would be carried out in line with the results of the benchmark workshop. The usual incremental analyses of adding each new data component were completed. Lee Qi presented the results of the assessment model with updated data to 2022 (models 0.00 to 1.00). Given that the SCW14 benchmark was held a few months prior to SC10, it was agreed that limited sensitivity runs should be done.
77. In preparing the final accepted run for the assessment, the SC noted that additional analyses regarding the standardisation of metrics between data and growth parameters used in the assessment have been carried out by Peru dealing with the 2-stock model. A condensed version of the results was presented in the Annual Report (SC10-Doc27) and an extended version was submitted as a working paper (SC10-WP01). These results affect the far north stock.
78. Another slight modification from the benchmark configuration allowed the model to better accommodate a change in the distribution of fishing effort by the offshore fleet. The SC agreed with this modification and improved the model fit to the 2022 age composition data.
79. The SC noted that there was very little fishing activity by the offshore fleet in 2020. As such, the age composition data were derived from a very small sample size, which is not being reflected in the stock assessment. **The SC:**

recommended the analysts consider incorporating variable sample sizes based on the data collection procedures. Presently, a single constant sample size is assumed for all years.

80. The B_{MSY} reference point was previously set at 5.5 Mt. During the SCW14, updating the B_{MSY} reference point in line with the new assessment approach was recommended. **The SC:**

agreed to use a 10-year average of the dynamically estimated B_{MSY} as the B_{MSY} value to be taken forward in the forecast. This B_{MSY} is estimated as 7,819 kt in 2022 for the single stock hypothesis.

81. The SC noted that the Jack Mackerel Benchmark Workshop provided an estimate of B_{lim} that the SC accepts as part of the harvest control rule (HCR) as modified from Annex K. This should be considered in the future Management Strategy Evaluation (MSE) studies
82. The SC noted that the assessment indicates that dynamically estimated F_{MSY} is increasing in the most recent years (from 0.19 in 2014 to 0.36 in 2022).

83. **The SC:**

recommended that the reason for the increase in the dynamically estimated F_{MSY} be further explored

84. The 1-stock and 2-stock models have some differences in the specifications of certain processes (e.g., on selectivity). In the current formulations, the single stock model performs better than the two-stock model with respect to retrospective patterns. However, the 2-stock model has a lower overall log-likelihood compared to the 1-stock model, indicating a better model fit. Regarding the retrospective pattern, it was suggested that the two-stock model may be unable to reconcile the recent increase in the Peruvian CPUE data with a lack of recruitment in the northern area. The SC agreed that over the

coming year additional work should be devoted to the two-stock model to better understand the reasons behind the lack of fit and patterns in the retrospective and this would best be carried out as part of the MSE for jack mackerel.

4.3 Advice to the Commission on jack mackerel

85. Advice on jack mackerel stock status at this meeting was based on stock assessments conducted using the Joint Jack Mackerel (JJM) statistical catch-at-age model, as developed collaboratively by participants since 2010. The jack mackerel stock(s) in the southeast Pacific show(s) a continued recovery since the time-series low in 2010.
86. An overview of the advice provided by the SC, the management decisions by the SPRFMO Commission and the estimated catch by year has been compiled in Annex 7. This Annex demonstrates that the advice from the SC has been taken up by the Commission.
87. In conformity with the approach by the SC since 2012, a comparison was made between the 1-stock and 2-stocks model configurations. Both models showed similar trends with an increasing overall biomass, high recruitments in recent years, and low fishing mortality.
88. Under the 2-stock model, the northern stock is estimated to have increased since 2019 from low biomass levels in the prior decades. The 1-stock and 2-stock models have some differences in the specifications of specific processes (e.g., on selectivity). In the current formulations, the 2-stock model has a lower overall log-likelihood than the 1-stock model, indicating a better model fit. However, the retrospective pattern in the northern stock is a reason for concern because it leads to substantial rescaling of stock size between subsequent assessments.
89. The retrospective behaviour and stock-recruitment patterns for the 2-stocks northern stock hypothesis require more in-depth studies to understand those patterns better. Concern regarding this topic would best be carried out as part of the MSE for jack mackerel.
90. The estimated biomass of jack mackerel increased from 2021 to 2022 and is estimated to be well above the B_{MSY} . Therefore, the SC noted that the stock is estimated to be in the third tier of the harvest control rule. Within the third tier of the harvest control rule, catches should be limited to a fishing mortality of F_{MSY} which would be expected to result in catches in 2023 of 3,120 kt. However, according to the directive of the Commission to the SC (COMM3, Annex C), a maximum change in the catch limit of 15% should be applied relative to the TAC of the current year.
91. In line with the accepted rebuilding plan (“Adjusted Annex K”) and because the jack mackerel biomass is estimated to be above B_{MSY} , **the SC:**

recommended a precautionary 15% increase in 2023 catches throughout the range of jack mackerel- at or below 1,035 kt. This advice for catch limits in 2023 does not depend on the stock structure hypothesis that is used.

92. The 2022 Workplan was revised (SC10-Doc05_rev1) with the update of dates and the removal of items where work was complete (such as the Benchmark Workshop SCW14).

4.4 Other jack mackerel matters

4.4.1 MSE update

93. The development of a Management Strategy Evaluation (MSE) will follow SC10, as the results from the benchmark assessment are needed for this process. The next steps for this process include planning a

workshop with Commission members and stakeholders to discuss overarching objectives and then updating the MSE with the latest benchmark information.

94. Funding needs to be secured for the technical updates of the MSE. The European Union has made a voluntary contribution to support this work and has offered to take the lead on this work, but welcomed other delegations to take on this responsibility, if interested.
95. Chile noted that stakeholder engagement needs to be initiated and has volunteered to take the lead on that task.
96. **The SC:**

recommended having a 1-day MSE workshop in conjunction with the 2023 SPRFMO Commission meeting, with external experts invited to lead the workshop. This planning for this workshop will be discussed with the Commission Chairperson after the conclusion of SC10.

4.4.2 Progress on connectivity research task group

97. Document SC10-JM08 reports the progress and preliminary results of the project entitled “Population genetics of Chilean jack mackerel in the South Pacific Ocean” carried out by Chile. For the period 2021-2022, samples have been obtained from nine locations along Chile. It was proposed that SC members be encouraged to share samples to improve the geographic coverage. The analysis was considering mitochondrial DNA control region (mtDNA) sequences and Single Nucleotide Polymorphisms (SNPs). All DNA data have been provided from an independent commercial genetic laboratory. For mtDNA and SNPs samples from five locations from period 2021-2022 (current project) and two location off Chilean waters, one from Peru, and one from New Zealand collected in 2008 (previous projects) were analysed. For mtDNA additionally, five locations have been obtained from GenBank database.
98. The mtDNA sequences showed variations in the genetic diversity estimations where the number of haplotypes varied from 1 to 9, haplotype diversity from 0 to 0.756, and nucleotide diversity from 0 to 0.124. Variation among location can be the result of the uneven sample size. Overall, there were 26 haplotypes found, and a relatively low haplotype (0.366) and nucleotide (0.062) diversity. Preliminary results do not suggest a geographical structure pattern. The SNPs obtained after filters were 9,430 from 91 individuals. Summary statistics of genetic diversity were low and with similar values among locations. The four genetic distances (i.e., D_a , D_{ch} , D_{ma} , and F_{st}) showed low values between locations. The DNA quality from previous projects performed well for mtDNA PCR and for built genomic libraries to obtain SNPs. Chile indicated in the presentation that next steps in the progress of this project included increase the number of locations (to improve the sampling design) and normalize the number of samples (to be more confident with the data analyses). Finally, ongoing efforts are indicated to generate a genome reference for jack mackerel that will contribute to the work of the connectivity task group.
99. Peru highlighted that these preliminary results should be taken with due caution due to the sampling design and how the data analysis has been performed (i.e., different number of samples by zone, sampling in the same area in different years treated as if coming from independent areas, no clustering criteria). Therefore, it was emphasized that, in addition to the more multi-disciplinary approach, a spatial and temporal analysis of the genetics needs to be considered in the connectivity task group. All participating members should align with this approach for a successful determination of possible population units of jack mackerel and their level of connectivity.
100. Document SC10-JM09 reported on the Chilean fishing activity for jack mackerel (*Trachurus murphyi*). During the year 2022 (January-July), the totality of the fishing activity in jack mackerel (*Trachurus murphyi*) was carried out inside the coastal strip delimited by the 60 nm offshore continuing with a trend registered observed since 2016 and that has been more marked during 2022. This condition was

favoured by the high level of aggregations of jack mackerel in the coastal strip, commercial abundance and recurrence of sighting areas that presented the schools of *T. murphyi* near the coast. There were few incursions into the ocean sector that did not yield positive results in the meeting of fishing areas. There appeared to be an absence of *T. murphyi* in commercial schools of importance outside the coastal strip. During the last 7 years, catches of *T. murphyi* have increased to values higher than that observed during the 1990s. The increase in fishing yields from 2016 onwards stands out, however in the last two years (2021 and 2022) this occurred above what was observed in the 90's, a period in which *T. murphyi* registered a high landing value. It was indicated that this increase in fishing yields was linked to the high level of aggregation of this resource in the coastal strip and the high abundances of schools, which would be associated with the preference of the species for areas with high levels of food, in its condition of active predator with a high metabolism. In recent years there has been an increase and predominance in the Chilean catches of the longest-lived large size groups (36 to 45 cm FL) and a low capture of juvenile specimens especially less than 26 cm FL.

101. One meeting of the Jack Mackerel Connectivity Task Group has been held to date (7/8 September 2022). During this meeting the Terms of Reference were agreed upon as well as a plan to develop the work plan. The task group agreed to set up two online/hybrid meetings to develop a genetic research programme and to establish a workplan for generating a desk study on connectivity (November/December 2022).
102. The (updated) Terms of Reference of the jack mackerel connectivity task group are:
- a. Carry out a desk study to pull together all available existing knowledge and data on the species and the stock identity issues. Hierarchically analyse the evidence and identify the sources of information related to population connectivity.
 - b. Identify priority lines of a multidisciplinary research for Chilean jack mackerel population connectivity and propose a work plan based on the gaps identified in the desk study.
 - c. Agree on protocols for collecting and processing samples and propose methods for analysis in each of the prioritised lines of research. Agree on the proper operational spatio-temporal scale for the sampling plan.
 - d. Develop a genetic research program (including whole genome sequencing), where possible, building on and making use of already ongoing projects. Explore the possible utilisation of an independent commercial genetic laboratory for processing of samples.
 - e. Explore feasibility of tagging methods (e.g., spaghetti tags, pop-up tags) to provide additional information on the actual movements of fish. Include the review of tagging methods into the desk study described above (a).

103. **The SC:**

recommended that an independent chair should be appointed for the task group thereby using the funds available for this work from the European Union grant. The independent chair should be assisted by two co-chairs, namely Giovanna Sotil (Peru) and Sebastian Vásquez (Chile).

104. **The SC also:**

recommended that an online meeting should be set up to present the state of the art in genetic connectivity research. The online meeting should take place in November/December 2022.

105. **Additionally, the SC:**

recommended that a detailed workplan be prepared for generating the desk study on multi-disciplinary connectivity research. The workplan should be prepared by the chair/co-chairs during November/December 2022.

4.4.3 Progress on jack mackerel ageing techniques task group

106. Document SC10-JM06 provides an overview of Chilean jack mackerel growth. Modelling the growth of Chilean jack mackerel considering the effect of age-specific sample size. Growth modelling is essential to inform fisheries management but is often hampered by sampling biases and imperfect data. Additional methods such as interpolating data through back-calculation may be used to account for sampling bias but are often complex and time-consuming. Focusing on Chilean jack mackerel, here we present an approach to improve plausibility in growth estimates when there is an age-specific imbalance in the sample size. In addition, we implemented an approach based on Bayesian fitting growth models using Markov Chain Monte Carlo (MCMC) with informative priors on growth parameters.
107. Considering the recent validation of the daily periodicity of the micro-increments in jack mackerel otoliths, the readings of annual rings in the otoliths were complemented with reading of daily increments for individuals younger than two years of age with the aim of improving the estimation of the parameter L_0 . Parameter estimates for the von Bertalanffy growth function confirmed age-specific sample size bias as an important source of uncertainty. The parameters estimated with the corrected database showed less difference between the adjustment methods (frequentist and Bayesian). A methodology based on sampling without replacement by age group is proposed to correct the imbalance in the sample size. Although some differences were observed between the periods evaluated, the Bayesian analysis produced more biologically reliable estimates for both L_∞ and L_0 . The growth rate coefficient, k , varied accordingly to the estimation of the other parameters, being higher when L_∞ was smaller and L_0 higher. Considering this approach, the von Bertalanffy growth parameters were estimated as $L_0 = 12.20$, $L_\infty = 67.43$ and $k = 0.14$ for the entire period evaluated.
108. The jack mackerel ageing techniques task group has not been formally established to date. Chile announced that they will host an ageing workshop from 10-14 October 2022 and invited members to participate in the workshop. However, several members indicated that they will not be able to participate in the workshop on short notice. Chile indicated that the workshop may be postponed to early 2023 to allow all members to participate.

5 Deepwater

5.1 Review of intersessional activities

109. Work on deepwater issues was largely progressed through New Zealand's South Pacific Working Group (SPACWG), with participation by other interested members. Seven papers were authored by New Zealand, and one was co-authored by Australia and New Zealand. Six papers (excluding the update on New Zealand's exploratory fishery for toothfish) were discussed during three different preparatory web meetings of the Scientific Committee's Deepwater Working Group. These meetings (SC10-Doc06_rev1) produced a set of recommendations for each paper, which the SC discussed.

5.2 Orange roughy stock assessment

110. The purpose of SC10-DW01_rev1, as specified in the SC workplan, was to update the orange roughy stock assessments for the Lord Howe Rise, West Norfolk Ridge and Louisville Ridge (3 stocks). An assessment for the Northwest Challenger Plateau was also included. The previous assessments used Bayesian integrated models, but it was thought that these models were showing undesirable statistical properties (were over-parameterised), and there was insufficient information in the available data to justify the model results. An estimation of the minimum initial biomass that could have supported the catches (B_{min}) can still be made even if an estimate of stock size and status cannot credibly be made. Using this estimate as a basis would be a conservative approach, because it is the minimum possible. The Deepwater Working Group put forward a set of draft recommendations, which were discussed by the SC.
111. The final recommendation included a table of recommended catch limits for different orange roughy forecasts with stochastic versus deterministic model runs. The intersessional meeting of the Deepwater Working Group did not make a clear TAC recommendation.
112. The SC discussed that the different scenarios suggest different levels of risk and the Commission can decide how conservative they wish to be. The Australian delegation indicated that domestically they use an M of 0.037 (in the middle of 0.03 - 0.045 as used in SC10-DW01_rev1) and suggested to use the deterministic estimates; an approach that was supported by New Zealand. Based on the models presented and associated uncertainties, the SC simplified the table to include a range of precautionary TACs. It was noted that the TACs recommended from the updated assessment model are about half of the current catch limits in the Tasman Sea and will further reduce the likelihood of any fishing.
113. With respect to SC10-DW01_rev1 **the SC:**
- a. noted that the previously accepted orange roughy stock assessments for north, central and South Louisville Ridge, the West Norfolk Ridge, Lord Howe Rise and the Northwest Challenger Plateau using integrated assessment models have been shown to be unreliable.
 - b. noted that even with accurate age data to inform the previously accepted stock assessment modelling approach, misspecification of natural mortality rate or year class strength could produce substantially misleading biomass estimates. Error in age frequencies could result in the true biomass being outside of the 95% CI of the assessment model, even if the assessment model had perfect knowledge for all other parameters.
 - c. noted that error and bias in orange roughy age samples can be relatively high.
 - d. noted that the integrated assessment model approach can still be used to estimate B_{min} given plausible settings for stock productivity and vulnerability, and that the B_{min} estimates from integrated models were higher than the B_0 estimates from spatial CPUE and simple population model-based methods.
 - e. noted that until further informative data are available the uncertainty in sustainable yield estimates will remain high. The most informative data to collect would likely be acoustic biomass estimates.
 - f. noted that if the stock is already depleted to a low level (e.g., <20%), then harvesting at maximum constant yield (MCY) would result in a relatively high fishing mortality rate and could result in a very slow stock rebuild or further decline. Current Annual Yield (CAY) and MSY yields will be higher than MCY and would exacerbate this risk. However, the risk should be mitigated when applying the MCY scalar to B_{min} .
 - g. agreed that the B_{min} estimates should be used as a proxy for B_0 estimates and that sustainable yields should be calculated by applying a fixed scalar to the B_{min} associated with an MCY policy of 1.45% (i.e., sustainable yield = $0.0145 \times B_{min}$) (Table 10 of SC10-DW01_rev1).

- h. agreed that from a scientific perspective this represents a precautionary approach to setting catch limits.

- i. **recommended** that the multi-annual workplan include an item to evaluate the orange roughy population and wider ecosystem impacts of carrying forward of TACs over multiple years

114. Finally, the SC noted the long-lived nature of the species, the Commission should evaluate the possibility of allowing up to 100% of the orange roughy TAC to be carried forward to future years. This may improve the potential for viable fishery opportunities (and hence research data) within the constraints of spatial management.
115. Observers DSCC and ECONZ responded to paragraph 114; their comments are included in Annex 9. The HSFSG counter to these comments is also listed in Annex 9.

Table 1. **SC10 recommendations** on TACs for orange roughy stocks
(Modified from Table 10 in SC10-DW01_rev1)

Area	TAC Range (t)
Louisville Ridge Central	305-334
Louisville Ridge North	116
Louisville Ridge South	145-160
West Norfolk Ridge	44
Lord Howe Rise	160-174
NW Challenger	131-160

5.3 VME encounters and benthic bycatch

116. There were no reported encounters with a potential VME pursuant to CMM 03-2022 (Bottom Fishing) in 2021.

5.3.1 Assessment on how ID guides for VME taxa could be developed

117. New Zealand presented SC10-DW06, which updates the SPRFMO quick reference on-deck Classification Guide for potentially vulnerable invertebrate taxa in the SPRFMO Convention Area, and also provides an update on the SC multi-annual workplan subtask to develop an ID guide for benthic bycatch, following the steps proposed in SC9-DW12. The paper reports on progress against 7 of the 10 steps identified in SC9-DW12, including the development of a purpose statement for the ID guides, what taxa and taxon-specific information to include in the guide, appropriate levels of taxonomic classification to inform management while minimizing misclassification, and procedures for handling, sampling, labelling and photographing bycatch, including when samples should be collected and returned for expert identification. It is intended that this work will enable fishers, observers and researchers to recognize benthic bycatch taxa more readily, and to improve the quality of benthic bycatch records from the SPRMO Convention Area.
118. The Deepwater Working Group put forward a set of draft recommendations, which were discussed by the SC. With respect to SC10-DW06 **the SC:**

- a. noted that the “Classification guide for potentially vulnerable invertebrate taxa” has been updated to include all VME indicator taxa included in Annex 5 of CMM 03-2022.
- b. **recommended** that the updated “Classification guide for potentially vulnerable invertebrate taxa” is published on the ‘Science’ page of the SPRFMO website
- c. **recommended** that the updated “Classification guide for potentially vulnerable invertebrate taxa” is used by observers and fishers to identify VME indicator taxa landed as bycatch during bottom fishing operations.
- d. noted that development of an ID guide for benthic bycatch within the SPRFMO Convention Area has been progressed.
- e. agreed that:
 - i. The purpose of the ID Guide should be to help observers and fishers to identify and collect data on benthic bycatch landed during bottom fishing activities at taxonomic resolutions that are suitable for science and decision-making needs and meet minimum data collection requirements outlined in CMM 02-2022 (Data Standards) and CMM 03-2022 (Bottom Fishing).
 - ii. The list of taxa provided in Annex 2 (of SC10-DW06) is used to populate the ID guide once Step 4 (determine the taxonomic resolution required to improve data quality and avoid misclassification) has been applied.
 - iii. Where species within a genus can be easily distinguished by users in the field, they should be included at the species-level in the ID guide, and where species and genera cannot be readily distinguished by users in the field, taxa within the guide should be collapsed into higher taxonomic levels.
 - iv. The taxon-specific information identified for inclusion in the guide is appropriate.
 - v. The instructions for handling, sampling, labelling, and photographing bycatch are appropriate.
 - vi. The procedures for when samples should be collected and returned for expert identification are appropriate.

5.4 Further development of VME indicator taxa distribution

119. New Zealand presented SC10-DW05, which updates the Scientific Committee on the development of habitat suitability models for previously unmodelled VME indicator taxa and the development of abundance models for VME indicator taxa. Habitat suitability models, and associated uncertainty estimates, for previously unmodelled VME indicator taxa were developed following the same methods presented in the New Zealand and Australia Bottom Fishing Impact Assessment (BFIA). Model estimates for the newly modelled VME indicator taxa (Actinaria, Brisingida, Bryozoa, Hydrozoa, Zoantharia, Crinoidea (and sub-groups stalked Crinoidea and unstalked Crinoidea) were assessed as having high statistical skill in classifying suitable habitat. A total of 17 VME indicator taxa habitat suitability models are now available for the SPRFMO Evaluated Area, covering all VME indicator taxa listed in Annex 5 of CMM 03-2022. Two methods for estimating spatial distribution of the abundance of VME indicator taxa were trialled: a data-driven modelling approach which is underpinned by (limited) abundance data; and a principles-based approach, i.e., where distribution of abundance of taxa are based on known or estimated relationships informed by experts. The data-driven approach was trialled for two VME indicator taxa: *Goniocorella dumosa* (representing the order Scleractinia, stony corals) and Demospongiae (representing the phylum Porifera, sponges). Both abundance models produced credible predictions of spatial distributions of abundance with high correlations between modelled predictions and observed abundances (noting that these samples were also used to train the models).

A preliminary trial of abundance modelling using a principles-based approach (having only received input from a subset of experts, 5 out of 22 experts) provided spatial estimates which visually appeared plausible, but which performed no better at predicting abundance than previously developed habitat suitability models. Further work is required to fully assess the appropriateness of this approach, including the integrations of responses from a greater number of experts (representing a variety of expertise and knowledge of the taxa) and possibly combining expert opinion using alternative elicitation methods than those tested. Where sufficient abundance data exist to develop robust statistical models, a data-driven approach will be prioritised for estimating the distribution of VME indicator taxa abundances. However, given the paucity in abundance data, it is likely that for at least some VME indicator taxa, insufficient abundance data will be available to develop robust data-driven models. For these VME indicator taxa, the principles-based approach could be further explored and may remain the only means to estimate distribution of abundance for data poor taxa.

120. The SC sought clarification on the reference to the two sub-taxa in the first recommendation. It was explained that the Crinoidea were modelled both as a single group and at finer resolution where they were split into the “stalked” and “unstaked” crinoids to reflect differences in vulnerability to trawl gear, which is what the “two taxa” are referring to.
 121. The SC sought clarification on the future of this work and clarification around the principles-based approach, particularly with regards to whether the principles-based approach estimates abundance. New Zealand clarified that further work is needed to explore the utility of the principles-based approach for estimating abundance for taxa where there are insufficient data to apply the data-driven approach.
 122. With respect to SC10-DW05 **the SC:**
 - a. noted spatial predictions of habitat suitability for six newly modelled VME indicator taxa (and two sub-taxa) using statistical methods previously endorsed by the SC have been completed.
 - b. noted the new VME indicator taxa models have high statistical skill in classifying suitable habitat.
 - c. noted a data-driven approach for modelling VME indicator taxa abundance has been trialled with initial predictions for two VME indicator taxa showing promising results.
 - d. noted a preliminary assessment of the principles-based approach for modelling VME indicator taxa abundance was undertaken, but further work is required to fully assess the appropriateness of this approach.
 - e. noted the future availability of further imagery data would help facilitate spatial predictions of abundance for a greater number of VME indicator taxa with increased robustness.
- f. **recommended** that the new habitat suitability models are added to the geodatabase of habitat suitability layers for VME indicator taxa held by the Secretariat so they can be provided to Members and CNCPs to aid in the evaluation of potential encounters with VMEs.
 - g. **recommended** the application of the data-driven approach described in this paper to estimate spatial predictions of abundance for VME indicator taxa for which sufficient abundance data exists.
 - h. **recommended** further exploring the application of the principles-based approach for taxa where abundance data are insufficient to apply a data-driven approach until sufficient abundance data becomes available.

5.4.1 Design of a process for reviewing historical bycatch in bottom fisheries

123. New Zealand presented SC10-DW03, which provided a progress update on the SC multiannual workplan task to develop “a process to review all recent and historical benthic bycatch data to determine the ongoing effectiveness of the spatial management measures”. The paper presents an approach to mapping the broad-scale spatial distribution of historical benthic bycatch of VME indicator taxa by New Zealand bottom trawl vessels operating within the Evaluated portion of the SPRFMO Convention Area between 2008 and 2022. The paper presents a series of figures and tables that identifies Management Areas where there has historically been a high frequency of interactions with VME indicator taxa (e.g., the South Lorde Howe – East; Northwest Challenger; and Central Louisville 15 Management Areas) or exceptionally large bycatch events (e.g., of Scleractinia in the West Norfolk; North Louisville Ridge 23; Central Louisville Ridge 13, 14 and 15). Conversely, the Figures and Tables also identify Management Areas where bycatch of VME indicator taxa has been relatively infrequent (e.g., North Lord Howe – North; North Lord Howe – South; Westpac Bank; North Louisville Ridge 17 and 18; South Louisville Ridge 3, 5, 7, 8, 9 and 11). The paper proposes that the next steps for this project is to undertake fine-scale spatio-temporal investigations of historical bycatch for locations within management areas with a high number of encounter events, or with high bycatch.
124. From this paper, the Deepwater Working Group put forward a set of draft recommendations, which were discussed by the SC. These were supported by the SC. The SC Chair questioned if there are plans to undertake the work to look into fine-scale spatio-temporal investigations of historical bycatch. New Zealand confirmed that this is a multiyear project, and the next phase would be to look at fine-scale spatio-temporal patterns of benthic bycatch.
125. HSFG suggested that the SC consider paper #2 proposed in SC10-Obs01 as a workstream in the SC workplan as a high priority to test the power of the habitat suitability models in their ability to predict benthic bycatch. New Zealand indicated that analyses of bycatch presented in SC10-DW03 is a separate topic from the point HSFG makes on habitat suitability modelling and considers this request out of scope for SC10-DW03. HSFG agreed and clarified that their statement was not with reference to the work that is already in progress; rather they identified a priority for work that has not yet been initiated but is necessary to determine at what spatial scale the Habitat Sustainability Index models can most appropriately be used.
126. With respect to SC10-DW03, **the SC:**
- a. noted that progress has been made in mapping the spatial distribution of historical bycatch of VME indicator taxa between 2008 and 2022.
 - b. noted that data included within the mapping is limited to that from New Zealand vessels operating within the evaluated area between 2008 and 2022 and is not representative of bycatch of VME indicator taxa in areas not fished by the New Zealand trawl fleet.
 - c. noted that the maps can overestimate the spatial distribution of bycatch and represent the maximum potential catch that could have come from a particular cell.
 - d. agreed that the mapping approach is useful for identifying the general areas within FMAs where fine-scale spatio-temporal investigations of historical bycatch should be undertaken, but that the per-cell statistics should be treated with caution as they present information at a smaller scale than is available in some of the data.
 - e. **recommended** that for areas within FMAs with a high number of encounter events, or with high bycatch, that fine-scale spatio-temporal investigations of historical bycatch are undertaken.

5.5 Investigations on the catchability of benthic bycatch

127. New Zealand presented SC10-DW04, which investigates the catchability of benthic bycatch of VME indicator taxa using existing data to support design of a wider research programme (SC10-DW04). Bottom trawl gear, designed to catch fish, is relatively inefficient at catching benthic invertebrates, including vulnerable marine ecosystem (VME) indicator taxa. Depending on their size and structure, some organisms may be broken into small fragments and lost from the net before it is recovered to the surface for examination of the bycatch, while other organisms might be able to withstand or avoid the passage of the trawl net and therefore not be included in the bycatch. Estimating catchability of benthic bycatch is important for informing future review of the VME encounter protocol included in CMM 03-2022 by allowing the potential extent of the impact on the VME corresponding to a given encounter threshold level to be estimated. Two types of data were used to estimate catchability: co-located data (trawl surveys which included images and video from headline cameras) and paired data (where imagery data was collected adjacent to trawl tows). The results of the analyses (as for previous assessments, SC7-DW14 and SC7-DW21-rev1), indicate that in general the catchability of VME indicator taxa by bottom trawls is very low to low (<5%), but for some taxa it can be moderately (5-10%) or relatively high (>20%). In addition to variation by taxa, the previous and present paired data analysis for SPRFMO (the most comparable analyses), indicate that catchability can vary by geographic area and depth. However, there are several issues that relate to these catchability estimates (using both paired and co-located data) that provide cause for concern about their robustness (i.e., small sample sizes, spatial coverage of imagery and mismatch between trawl locations and imagery location), despite all the measures that were taken to make them as reliable as possible. The data evaluated in this analysis represent the best available estimates, but as per the previous analyses, are insufficient to yield quantitative estimates of catchability for VME indicator taxa with certainty. Recommendations to help design a programme to better determine catchability of VME indicator taxa were also provided.
128. The Deepwater Working Group put forward a set of draft recommendations, which were discussed by the SC with some modifications (i.e., in the second recommendation, the text “as per the previous analysis” should be replaced with “similar to SC papers SC07-DW14 and SC07-DW21.”
129. DSCC commented that most of the analysis presented indicated that catchability was generally low and therefore should be considered in taking precautionary measures in developing thresholds. The Working Group Chair noted that the SC highlighted the high uncertainty associated with catchability estimates rather than the estimates themselves. The European Union and New Zealand supported the statements by the Working Group Chair. The conclusion was that the sentence captures the main point to be conveyed from the paper.
130. The SC discussed the appropriateness of including language in the SC Workplan on undertaking future analyses (i.e., power analyses and other tools) to assess the feasibility of the research programme. It was agreed that the language did not need to be added to the SC Workplan but rather it was captured in the recommendations and meeting report. As described in SC10-DW04, development of a programme to better determine catchability of VME indicator taxa, will need to consider the appropriateness of sampling methods (e.g., trawl gear type, camera setup, amongst others), sample design (e.g., sample number, spatial scale of sampling, stratification by habitat and bioregion, power analysis, amongst others) and cost.
131. DSCC noted that the research methods need to be non-destructive of VMEs as well.
132. With respect to SC10-DW04 and intersessional discussions **the SC:**
- a. noted that a pragmatic, data-informed approach has been used to further evaluate the availability of New Zealand data to assess the catchability of VME indicator taxa.
 - b. agreed that the data evaluated in this analysis, which represent best available estimates, are insufficient to yield quantitative estimates of catchability for VME indicator taxa with adequate certainty similar to findings shown in SC paper SC07-DW14 and SC07-DW21_rev1.

- c. agreed that the most robust approach to quantifying catchability of VME indicator taxa would be to compare the biomass of VME indicator taxa landed on deck with estimates of seabed biomass from headline and other fit-for-purpose net cameras with suitable resolution and coverage of the trawl footrope.
- d. **recommended** that the feasibility of developing and funding a research programme to achieve robust estimates of catchability for VME indicator taxa in 2023+ should be explored.

5.6 Ongoing appropriateness of CMM 03 (BF-IWG)

- 133. The Chair of the Intersessional Working Group (IWG) on bottom fishing provided a presentation summarising the IWG's progress to date, based on its terms of reference (COMM10-Report, Annex 4c). The IWG Chair noted the IWG had finished its work on Topic 1 (appropriate scale of management to assess and prevent SAIs on VMEs), Topic 4 (the encounter review process) and Topic 5 (the 2020 VME Encounter).
- 134. The IWG Chair highlighted:
 - a. The importance of resolving the appropriate scale of management given its centrality to CMM 03-2022, and assessing the ongoing effectiveness of the CMM.
 - b. The SC's repeated requests to the Commission to resolve the appropriate scale.
 - c. That the IWG will recommend that the Commission adopt the Fishery Management Area as the appropriate scale of management for assessing the performance of the VME spatial management scenarios (within the Evaluated Area); and a multi-scale risk-based approach to assess encounters with VME indicator taxa.
 - d. The review documented both the strengths of the encounter review process and some areas for improvement, including further work for the SC to develop an Encounter Review Standard.
 - e. The IWG's review of the 2020 VME Encounter, which considered the advice from the SC. The IWG concluded that the NZ 2020 VME encounter area should remain temporarily closed until the work on the multi-scale risk-based approach was completed.
 - f. The IWG was still working on Topic 2 (spatial management protection scenarios) and Topic 3 (the move-on rule), noting extensive scientific advice provided by the SC in previous years.
 - g. The IWG will meet again in November to finalise Topic 2 and 3, and to consider any further advice from the SC.

5.7 CMM 03 request regarding species of concern

- 135. Australia presented a joint paper with New Zealand on direct and indirect interactions between bottom fishing and marine mammals, seabirds, reptiles, and other species of concern (SC10-DW02), as required every 2 years under CMM 03-2022. No mammals or reptiles were recorded as caught over the last 2 years. There were 2 bird interactions, a fairy prion (dead) and an individual that was either a petrel or a shearwater, which was released uninjured. There were also three sharks recorded by an Australian demersal longline vessel as oceanic whitetip sharks, three mixed black-tip sharks, and nine mixed rays (but it is believed that these latter two are unlikely to be of the species identified in CMM 02-2022 as SPRFMO Species of Concern).
- 136. Based on the results from SC10-DW02, **the SC**:
 - a. noted the summary of seabirds, marine mammals, reptiles, and other species of concern reported captured in bottom fisheries in the SPRFMO Area from 2020-2021 together with the total weight captured and IUCN threat classification categories is contained in Table 2, and that this will be reviewed again in 2024.

b. noted that captures of marine mammals, seabirds and reptiles are rare in bottom fisheries.

c. **recommended** further mitigation options should be sought and implemented to reduce the incidental capture of oceanic whitetip sharks.

d. **recommended** that Australia amend its e-monitoring protocols to include video review of all fishing shots where the vessel reports an interaction with a species of concern under CMM 02-2022.

e. agreed that no spatial/temporal closures, spatially/temporally limited gear prohibitions, bycatch limits or measures for an encounter protocol for any of these species are required at this time.

5.8 Advice to the Commission on Deepwater

137. Recalling that CMM 03-2022 paragraph 18 requires that “No later than at its 2023 annual meeting, the Commission shall decide on the level of protection required to prevent significant adverse impacts on VMEs, taking into account the advice and recommendations of the Scientific Committee.”

138. Subsequently, **the SC**:

a. **requested** that the Commission provides clear guidance to the SC on the spatial scale at which significant adverse impacts should be evaluated, and other matters related to operationalising the objective of preventing significant adverse impacts on VMEs, at the conclusion of the work of the SPRFMO Intersessional Working Group on Bottom Fishing.

b. noting the reference in CMM 03-2022 to the United Nations General Assembly (UNGA) Resolution 61/105 calling on RFMOs to avoid significant adverse impacts on VMEs, **SC10 requests** that the Commission develop specific objectives for VME management and provide clarity on the choice of an operational / quantitative threshold defining what level of impact would constitute a significant adverse impact.

c. noted that the SPRFMO Intersessional Working Group on Bottom Fishing has concluded that the Commission should adopt the Fishery Management Area¹ as the appropriate scale for assessing the performance of spatial management (including the areas that are open and closed to fishing) and that the assessment of VME encounters should be at biologically relevant spatial scales.

d. **requests** further clarification on the acceptable severity (significance of the damage) and extent (spatial proportion of the VME habitat impacted) of the impact, if these differ from the guidelines provided by the FAO.

139. The 2022 Workplan was revised with the updating of dates and removal of items where work was complete. New items for the Workplan included:

a. Evaluate the orange roughy population and wider ecosystem impacts of carrying forward of TACs over multiple years.

b. Exploring how to define the thresholds between good state and SAI for VMEs at different spatial scales, and understanding knowledge gaps and uncertainties.

140. HSFSG developed a working paper (SC10-WP02) outlining a science rationale and suggestions for further efforts to progress this work.

6 Squid

6.1 Review of intersessional activities

141. The SC noted that in 2022, the Squid Working Group held six virtual workshops on the topics of effort, stock assessment, and genetics for jumbo flying squid. The chair of the Squid Working Group, Dr Gang Li provided a summary of this work.
142. The SC discussed the species profile for jumbo flying squid and proposed updates to the genetic information and taxonomy in the species profile, which have been incorporated within SC10-SQ13_rev3 *Proposed changes to the jumbo flying squid species profile*. It was additionally suggested that the latitudinal distribution in Figure 1 of the profile is updated so that it is restricted to a southern limit of 40°S, and that a source reference for the update is provided. During SC10, the new proposed map was not accepted; however, Members agreed on final edits. The SC congratulated the Squid Working Group for completing this task.

6.2 Squid assessment data (including effort)

143. With regards to the effort workshop, there were several presentations from Members and the Secretariat. The Secretariat supplied and described the catch and effort data from the squid jigging fishery (1 degree by year, month, Member). Two data sets were provided, one for the aggregated data as described above and the second with the data categorized and aggregated by vessel size class (i.e., small, medium, and large), based on gross tonnage.
144. China presented monthly CPUE indices based on different effort metrics (i.e., fishing hours, days and vessels) and vessel characteristics (SC10-SQ03), using the catch and effort data from the multinational dataset prepared by the Secretariat and China's national data.
145. Chile, Korea, Peru, Chinese Taipei summarised their squid fishery including data collection, fishing effort, fishing grounds, and technical details of the squid jigging operations. There was also presentation on catch and effort data template development.
146. Based on these presentations, members discussed fishing effort metrics and agreed to use fishing days to generate CPUE indices for the squid jigging fishery.
147. A data template to support the stock assessment was also discussed. However, this item needed some additional discussion before adoption.
148. The workshop also discussed effort control and CMM development and reconfirmed the Scientific Committee's advice from last year.

6.3 Genetics and connectivity

149. Document SC10-SQ09_rev1 reports on preliminary results based on mtDNA (ND2 and COI) genes and SNPs analysis with ddRADseq technique of *Dosidicus gigas* collected in Peruvian jurisdictional waters. Mature organisms (stages III and IV) from the three size phenotypes (small, medium and large), from three latitudinal groups (north, central and south), and from two longitudinal distributions (coastal and oceanic groups) were considered. Two mtDNA genes, COI (658 bp) and ND2 (1084 bp), were analysed. For COI, low genetic diversity and a star-like network was registered in 130 organisms analysed. On the other hand, for ND2 gene, a higher genetic diversity (49 haplotypes) was identified in the 123 individuals evaluated. The highest haplotype and nucleotide diversities were observed in the large-size (among phenotypes), central (among latitudinal groups) and oceanic (among longitudinal distribution) organisms. Under different hypothesis, groups comparisons (AMOVA) were done, observing a significant difference among coastal and oceanic groups. Pairwise *Fst* analysis showed significant differences between central oceanic and south coastal, as well as central oceanic and southern oceanic

organisms. These differences were mainly related to the presence of large-size organisms from central oceanic zone. In addition, based on ddRAD-seq genotyping of 28 samples (representative from most of the groups), 310 polymorphic loci and 746 SNPs were retained and used for preliminary analysis.

150. Additional information on genetic studies were provided by Chile (SC10-SQ05) and Korea (SC10-SQ12).
151. The SC noted that although samples in different studies were variously collected from the high seas (China and Korea) and coastal waters (Chile and Peru) and analysed using different genetic techniques, the studies were consistent about identifying a single genetic stock, except for the study by Peru. Peru emphasized that differences may be related to the different sampling design used (3 phenotypes collected in the same area, to compare differences along their latitudinal and longitudinal distribution), compared to other studies.
152. The SC discussed plans to exchange muscle tissue samples or genetic data, which has been delayed. However, there was agreement to continue this work and share tissue or genetic samples, as well as associated metadata (e.g., the coordinates, depth, and date samples were collected and well as phenotype information) where they are available. It was noted that some members currently only have DNA samples available, and other members may have restrictions on sharing tissue samples. The best options for exchanging DNA sequences were discussed, including registering data on GenBank.
153. The SC also discussed the sharing of genetic protocols and the development of a unified report incorporating data and analysis from all members.
154. Following the discussion, the **SC**:

recommended to develop a Jumbo Flying Squid Genetics and Connectivity Task Group to:

- a. Promote the samples (DNA or tissue) exchange to perform the population genetic analysis considering the three phenotype-sizes along the entire species distribution and taking into account a mantle length range of each phenotype size and sampling coordinates.
- b. Elaborate a single report on the description of genetic diversity based on mtDNA markers (ND2 and COI), integrating registered DNA sequences from all members.
- c. Share and discuss the detailed protocols of NGS techniques applied by members for SNPs identification, and try to implement techniques and standardize analysis criteria, using the sequenced genome of the species as a reference, if possible.
- d. Integrate the results of all members for a description of the population genetic variability based on SNPs.

6.4 Standardise biological sampling

155. Biological sampling was discussed under the genetics and connectivity agenda item. The connectivity activity has as part of their terms of reference to design appropriate sampling levels and coverages.
156. The SC discussed the addition of new columns to the data template for mean ML and mean weight and discussed whether data should be reported at the week level rather than as monthly.
157. The SC discussed if the purpose of the templates is for data collection or to format data to feed into stock assessment models. It was clarified that the template is designed to support the stock assessments (rather than new data collection) and that the collection of new data is supported by the data standard, which identified the types of data that need to be collected.
158. It was noted that some Members' monthly catch data is missing, which has delayed the stock assessment workshops, and the template is designed to address that issue and support the stock assessment using the current models.

159. Peru provided a short presentation that highlighted the potential addition of information related to effort, spatial resolution, and subpopulation group classifications (i.e., S, M, L) to the template. The aim of the additional information is to evaluate population subgroups and the spatial distribution of subgroups.
160. The SC discussed that although there are many good suggestions for how the template could be updated, a pragmatic approach would be to produce a template that includes the minimum requirements for a stock assessment using the models that are currently available. The SC acknowledged that future updates to the template could include additional biological specifications to iteratively improve the models and incorporate phenotypic data.
161. It was agreed that Members should further develop the template intersessionally. An item was added to the SC multiannual work plan to revise the data template to sufficient detail and create scripts to allow current assessment methods to be used and future higher resolution approaches (e.g., depletion estimator by phenotype).
162. The SC noted models that include phenotypic information could be developed in parallel to the current models. There were differing views on whether models should be developed in parallel or not, and if the current models should be abandoned for new models that include phenotypic information. Some Members expressed concerns about developing a new model approach and abandoning the work that had been done to date on the existing models.
163. Recognising that this is a complex matter with differing views amongst members, the SC agreed to add a new item to the multi-annual workplan to develop a task group to coordinate data needed for stock assessment models with a goal that they will account for phenotypic spatial patterns.

6.5 COMM 11 Advice on appropriate level of observer coverage

164. Document SC10-SQ06 describes the methods and procedures applied by the Instituto del Mar del Peru (IMARPE) to obtain biological and fisheries information and data on the jumbo flying squid *Dosidicus gigas* in the Peruvian waters. In cooperation with other agencies, IMARPE is working on expanding these methods and procedures in order to strengthen the systematic collection, sampling and recording of information and data on the fishery, the biology, and the population dynamics of this species, both on board artisanal fishing vessels and in the main landing sites and coastal research laboratories of IMARPE. The IMARPE observer programme already provides a standardised tool for collecting, sampling and recording information and data that contributes to generating reliable and comparable information from the jumbo flying squid fishery in Peruvian jurisdictional waters and, with the necessary adjustments, it will be strengthened and expanded to meet the requirements of the SPRFMO Observer Programme (CMM 16-2022) and CMM 18-2020 (Squid) with respect to Peruvian artisanal vessels less than 15 m in length that will be authorised and participate in jumbo flying squid fishery in the high seas, in the SPRFMO Convention Area.
165. The SC noted that this was an innovative approach to approaching an alternative programme for satisfying observer requirements in support of science needs for the resource. Peru requested advice and comments on this from the SC. It was clarified that this is presently used to collect data within the Peruvian Areas of National Jurisdiction (ANJ) and is working well. Therefore, **the SC:**

recommended that the programme was suitable and met the requirements for data collection obligations as detailed in paragraph 4 of CMM 16-2022 (Observer programme).

166. Document SC10-SQ11 provides information about the importance of onboard scientific observers in the jumbo flying squid fishery as presented by Ecuador in the Squid Stock Assessment Workshop, on 8-9 September 2022. It was highlighted that on-board human and electronic observer programmes

should be developed and included among the mandatory measures for all countries involved in harvesting jumbo flying squid, supporting scientific and monitoring work to assess the status of the population, which is compulsory by international agreements to regulate fisheries and management policies in the SPRFMO Area.

167. The SC squid working group discussed a simulation study (SC10-SQ02) of the existing observer data suggesting that the minimum observer coverage of 5 full-time at-sea observers or 5% of fishing days was acceptable from a statistical sampling perspective. The observer coverage should be spatially and temporally representative of the fishery. An alternative level of 20% was also suggested by some Members, based on consistency with other RFMOs. The SC noted that the current level of observer coverage of the Chinese fleet is well below 1% of fishing days in 2021 due to the impact of COVID-19 pandemic.
168. There was considerable discussion on improved monitoring programmes that will soon be coming online. This includes, e.g., electronic logbooks in 2024 for the Chinese fleet, electronic monitoring (EM) programmes in Peru and Chile, and plans for a sampling design to account for genetic/phenotypic differences. These programmes should factor into observer coverage level considerations.
169. The SC noted that it is important to provide advice about observer coverage and develop a better understanding of the characteristics of the fishery, the stock (including phenotypes and biological condition), and ecosystem impacts to inform management decisions.
170. The SC noted that paper SC10-SQ02 evaluated the required level of observer coverage; however, there were some concerns about the representativeness of data collection at the current observer coverage level. Some Members suggested that the SC may need to make a recommendation based upon observer coverage in other RFMOs, which is generally higher than that currently required in CMM 18-2022.
171. China noted that it has study-fleet of vessels to collect data to supplement human observers. For the 2022 fishing year there have been five full-time on-board observers, so the number of fishing days will be greater, and they suggested to the SC that they will assess if they believe the level of coverage will be enough to support scientific needs, including phenotype analysis.
172. It was noted that the characteristics of the fishery, the number of observers deployed, and the amount of data collected should be considered when discussing observer coverage. It was also noted that even though interactions with species of concern may be low, low interactions require high observer coverage to allow detectability, and even small numbers of interactions can result in large population impacts when the fleet is large and the populations of the impacted species are small. China pointed out that bycatch in the jumbo flying squid fishery is rare; however, a turtle interaction was observed (SC10-Doc10 Table 4). China cautioned against extrapolating to the entire fleet.
173. Many Members supported an increase in observer coverage (human and electronic) of the jumbo flying squid fishery in the Convention Area because these levels were below acceptable scientific standards for data collection purposes. And some Members supported that the current observer coverage level is appropriate based on available studies.
174. China submitted a statement (Annex 9) on observer coverage in the jumbo flying squid fishery.

6.6 Assessment progress and CMM development

175. With respect to biological consideration for the stock assessment, Peru gave a presentation on variation in size-at-maturity of squid, focusing on long-term patterns of distribution in the different phenotypes. The workshop discussed the presence of different phenotypes (i.e., small, medium, and large) observed in jumbo flying squid and the implications for monitoring and assessment.
176. The SC discussed three stock assessment models presented by Members and Observers: a SPiCT model (Chile, SC10-SQ10), a Bayesian stat-space model (China, SC10-SQ04), and a depletion-production model

(CALAMSUR (SC10-Obs03). There were differences in the length of data time series included in the models, as well as with the advantages and limitations of each of the models. The need for a precautionary approach to managing the fishery was also raised.

177. The SC discussed the need for longer time-series of data to reflect longer-term environmental fluctuations that can have a significant influence on the productivity of a stock.
178. The SC discussed the uncertainty associated with the CPUE indices used in the assessment models, largely due to the spatio-temporal variability of the different phenotypes. The CPUE trends may be hard to interpret given the different phenotypes and that the total catch can be reported in weight or numbers (converted from mean weight).
179. The SC discussed the challenges with estimating the intrinsic growth rate parameter for all models, given gaps in the current understanding of squid biology.
180. The SC acknowledged that the issue of phenotype is important and should be linked to workplan task, and noted the complexity associated with an assessment model for a short-lived species such as jumbo flying squid.
181. The SC discussed aspects of the stock assessment models that had been developed intersessionally and acknowledged the work done by members in this regard. Additionally, from this work **the SC:**
 - a. noted that a shared dataset of all catch and effort data held by the Secretariat was made available.
 - b. noted that the nominal CPUE index shows a slight decline since 2016 and that the nominal and standardised CPUE time series show similar trends.
 - c. agreed that data, stock structure, and model specification issues need to be resolved before these model approaches can be used to advise the Commission on appropriate catch,
 - d. noted that sampling for phenotypic variation should be considered in developing management procedures based on stock assessments, and
 - e. **recommended** that in the interim, CMM development should monitor CPUE trends and constrain fishing effort as a precautionary approach

Table 2. Overview of pros and limitations of the three models evaluated in the squid working group.

<i>Model</i>	<i>Pros</i>	<i>Limitations</i>
Bayesian state-space production model (CHN) 2016-2020	Incorporation of process and observation error; exploration of environment-dependent parameters	Short time series; lack of contrast in CPUE.
SPiCT (CHL) 2001-2020	Incorporates process errors on biomass and fishing effort and observation errors (catch and abundance index) Longest abundance index (2001-2020) with contrast. Global abundance index Flexible time scales (annual model presented)	Production specified as Schaefer model Prior distribution intrinsic growth (r) Nominal CPUE indices for China, Chinese Taipei and Korea. Peruvian data from ANJ report figures (digitised)
Regional depletion model (CALAMASUR) 2012-2020	Monthly time scale; mechanistic model	High estimated r ; potentially overly optimistic Poor fits to Chinese catch data Peruvian data from ANJ report figures (digitised) Natural mortality estimated without fisheries independent data Survival curve inconsistent with semelparous life strategy

6.7 Advice to the Commission on squid

182. The nominal CPUE index shows a slight decline from 2016 (Figure 1) and the nominal and standardised CPUE time series show similar trends. Data, stock structure, and model specification issues need to be resolved before the assessment models can be used to advise the Commission on appropriate catch.
183. Therefore, **the SC:**

recommended that in the interim, the Commission monitor CPUE trends and constrain fishing effort as a precautionary approach in developing a CMM. **The SC reconfirms** the recommendations about the need for fishing effort limitations¹.

¹ At SC9, a recommendation on constraining effort was: "As a precautionary measure, the Scientific Committee recommends that fishing effort in the squid fishery be limited by both the number of vessels and the total gross tonnage of squid jigging vessels authorised as at 31 December 2020 (noting that coastal States should still be able to expand or develop their fisheries, either with jigging or other fishing gears used to fish Jumbo Flying squid in a manner consistent with SPRFMO CMMs)."

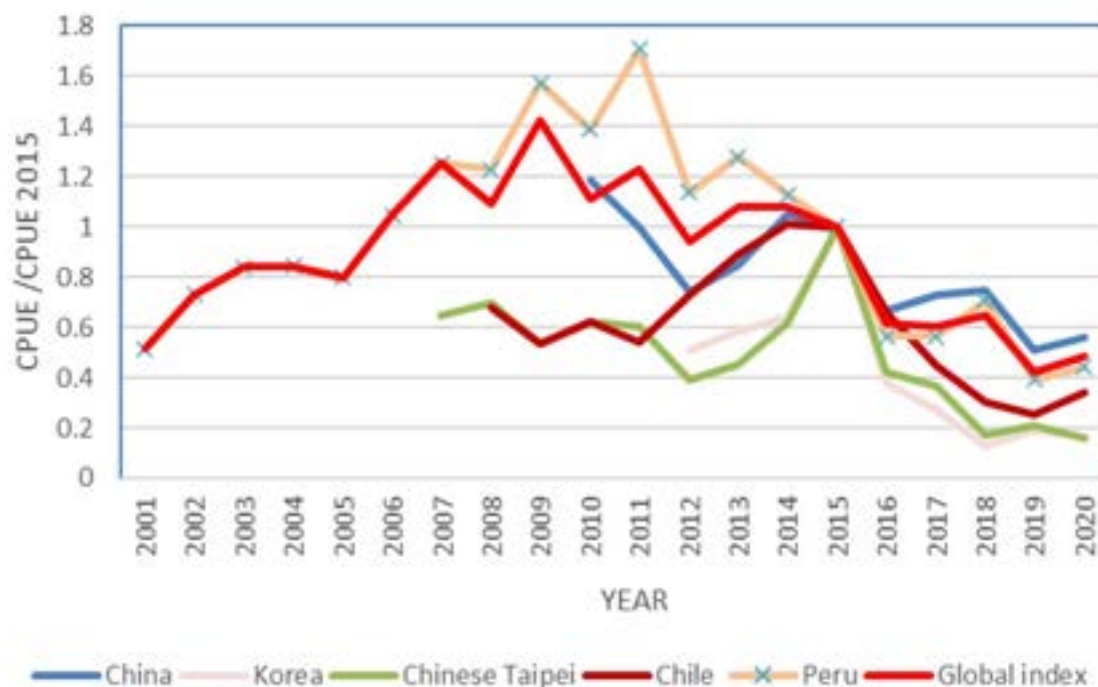


Figure 1. Relative abundance indices by country and global index, presented by Chile (SC10-SQ10).

184. Paper SC10-SQ01_rev2 contains a review of the data holdings by the Secretariat. The SC noted that the effort by all measures of squid jigging has declined in 2021 compared to 2020.

7 Habitat Monitoring

7.1 Review of intersessional activities

185. In 2022, there were 3 online workshops organised according to the workplan and 1 pre-SC workshop.
186. The first workshop of a sub-group of Analysis of Assessment Methods (SGAM) was held prior to SC10 on 27/28 April 2022, at which the Habitat Monitoring papers were presented and discussed in detail. The workshop report is available as part of SC10-Doc06_rev1. The topics considered in this workshop were about the theory of acoustic survey design (random versus systematic sampling), the calculation methods implemented to estimate abundance of jack mackerel in Peru and Chile and there were discussions about the merits and drawbacks of different methods. Some issues that potentially affect the analysis of acoustic data include:
- Calibration is not considered to be so much of an issue anymore – the technical problems have been solved. The International Council for the Exploration of the Sea (ICES) protocol allows for calibration of digital echosounders that do not contain a calibration algorithm.
 - Fragmentation is an issue – ways to overcome this significant data issue need to be proposed, maybe using time lags to reduce the double or multiple counting.
 - Fish avoidance – there are possible solutions through use of sonar data, an experiment could be proposed to the SC.
 - Migration/movement of fish – this is difficult to investigate but could be a problem when a single vessel is surveying large areas.
 - Problem of detecting fish in day time/night time – it appears that mean backscatter could be different between day and night.
 - The problem that there are few collections of data where fishing actually occurred.

187. The working group had the following action items:
- a. The Working Group asked for more fine-scale comparison between survey and industry data, in the Chile central south dataset, and also for temporal comparisons (e.g., time series).
 - b. Peru was asked to include text files with the sample data contributed by Peru, so that everyone would understand what the data represented.
 - c. Members were invited to use the data distributed by Peru to the Working Group to try different methods of analysis for comparison.
 - d. The European Union was asked to circulate scripts and exploratory data analysis of the data so that all groups could benefit from this preliminary processing and analysis.
 - e. Chile also offered some data collected by Chile at the same time as the data from Peru, which will be a very interesting comparison
 - f. The European Union was asked to explore the application of the synthetic transect approach to the standard test data for comparison with the geostatistical approaches.
 - g. The groups were asked to keep in touch by email as analysis work progressed.
 - h. The Working Group agreed to meet again in about mid-June, to discuss results and allow a report to be prepared for presentation to the Scientific Committee
188. A second workshop of a sub-group of specialists to organise the classification of fishing fleets regarding its acoustic data collection capacities (SGAD) was held on 18/19 May 2022, at which papers were presented and discussed in detail.
189. Peru made a brief presentation on how Peruvian vessels in the jack mackerel fishery are classified, based on a paper from SC9 (SC9-HM05). A vessel classification scheme based on five levels was proposed. For example, Level 1 is vessels with digital echosounders operating with at least two frequencies and split beam transducers.
190. Chile made a presentation about the acoustic equipment of the purse seine fleet of central-south Chile. There are 29 vessels, owned by 8 fishing companies, all over 1,000 tonnes. Six have fully scientific echosounders (e.g., EK60), which can be internally calibrated. Seven have 'semi-scientific' (digital) echosounders (ES60), which can be externally calibrated using post-processing software. A third group of six vessels have broadband echosounders (ES80). A final group of ten vessels have fishing echosounders (analogue, e.g., Furuno), which cannot be calibrated, though there is one digital Kaijo Denki brand (KSE-300). Two different frequencies (38 kHz versus 120 kHz) are used to collect acoustics data, with some echosounders using both frequencies.
191. It was noted that there are also vessels collecting acoustics data in the northern part of Chile, and these vessels should also be integrated into the classification.
192. Korea presented information about the acoustics capabilities of the two Korean trawlers in the jack mackerel fleet in the Convention Area. The Sae In Leader, 3,000 tonnes has a SIMRAD ES-70 (38 and 120 kilohertz) and the Sejong, 7,765 tonnes, has a Simrad EK-80 (38, 70, and 120 kHz). The vessels have indicated that they may be willing to collect echo sounder data for use by the Scientific Committee.
193. The meeting discussed whether there was any difference in terms of the classification due to the type of vessel (i.e., trawler versus purse seine). It was agreed that in principle there should be no difference if both vessel types are below the threshold of noise (under ICES guidelines). It was suggested that there might be ways to measure the amount of noise, possibly using passive data collection techniques. It was suggested that fish avoidance caused by noise or by visual stimuli are the main sources of bias when using echosounders so that the true fish density is not contained in the acoustic data collected, which reiterated the push (as discussed at the first 2022 Habitat Monitoring workshop) to find ways to

quantitatively use Sonar rather than Echosounder information. The HMWG noted the following action points:

- a. The meeting agreed to combine the two proposed classification schemes (from Chile and Peru) into a single agreed classification scheme.
 - b. To populate a single table across all Members using the agreed joint classification.
 - c. To request acoustic capability data from the fleet in the northern part of Chile, to include in the classification
 - d. Chile volunteered to review the ICES metadata convention and report back to the joint workshop, summarising the important aspects for the group
 - e. Members are invited to use the joint repository of acoustics data (currently held at the Humboldt Institute) to test out stock assessment approaches and/or for describing the habitat (as discussed at the first Habitat Monitoring workshop on acoustics methods).
 - f. The working group agreed to work towards the compilation of a joint dataset to perform fish stock assessment tests and simulations.
 - g. Submission to the SC of a first report on joint assessment of CJM abundance based on acoustic and catch data shared by Peru.
 - h. Ask Simrad which version of the ES70 does not produce the problem of the triangle wave – which version of the software can we use without having to worry about the triangle wave issue.
194. A third workshop of the two groups of specialists (SGAM and SGAD) was held on 22/23 June 2022, at which papers were presented and discussed in detail.
195. The HMWG noted the following action points:
- a. Metadata will be prepared for the information contained in the repositories.
 - b. The meeting agreed to prepare a document describing the potential use of certain sources of data obtained from the acoustic data and describing the limitations and drawbacks of the acoustic data while acknowledging the progress obtained so far.
 - c. Analysis of possible co-variates that can be used for calculating CJM biomass, potentially using modelling tools such as INLA, random forest, Template Model Builder (TMB), etc.
 - d. Describe the spatial and temporal scale and the change in CJM distribution over time (with an emphasis on the usability of these results for the work of the Jack Mackerel Working Group) including, if possible, the calculation of biomass indices for different periods.
 - e. Ask Simrad which version of the ES70 does not produce the problem of the triangle wave.
 - f. The meeting agreed to combine the two proposed classification schemes (from Chile and Peru) into a single agreed classification scheme and to populate a single table across all Members using the agreed joint classification approach.
 - g. The European Union was asked to circulate scripts and exploratory data analysis of the data so that all groups could benefit from this preliminary processing and analysis.
196. A fourth workshop of the Habitat Monitoring Working Group was held on 14/15 September 2022, at which papers SC10-HM01, SC10-HM02, SC10-HM03 and SC10-HM04 were presented and discussed in detail.
197. Peru presented SC10-HM01 regarding the abundance of jack mackerel and chub mackerel off Peru in 2020-22 and noted that in recent years there has been a positive trend in an increase of the jack mackerel abundance, back towards the average levels of past decades. Catches in the same period (1983-2022) show, in general, better fishing performance in years when calculated biomass has been higher. The highest abundance of jack mackerel (i.e., in the zones of operation of the fishing fleet only)

calculated through geostatistical methods, was during September 2020, with 855 thousand tonnes, followed by March 2021 with 518 thousand tonnes.

198. Similarly, in recent years there has been a positive trend regarding the chub mackerel biomass, i.e., an increase towards average levels of abundance in comparison with past decades. Catches in the same period (1983-2022) show, in general, better catches in years when biomass has been higher. The highest abundance of chub mackerel in the zones of operation of the fishing fleet only, calculated through geostatistical methods, was during February 2020, with 247 thousand tonnes, followed by September 2020 with 236 thousand tonnes.
199. The calculated abundance of jack mackerel, using various stratification methods based on acoustic data collected during January 2022 have been given in a range of 207 to 974 thousand tonnes in the areas prospected by fishing vessels. The average value of these estimates is 702 thousand tonnes, with a standard deviation of 270 thousand tonnes.
200. For jack mackerel biomass between 1983 and March 2022, two regimes are observed: one between 1983 and 2002, in which the biomass fluctuated between medium and high levels; and another regime after 2002 with abundances varying between medium and low levels. However, in recent years there has been a positive trend in jack mackerel biomass, that is, an increase back towards mean levels of abundance.
201. The working group discussed possible explanations for the change after around 2002 which occurred after an El Niño event. It is believed that about this time the depth of the oxycline (a sharp gradient in oxygen concentration in the water column) reduced, and it became very shallow, which does not benefit jack mackerel. There may be associated changes, such as changes to the plankton, but the main effect appears to be the depth of the oxycline.
202. Acoustics data from 16 trips (3 vessels) during 2022 were analysed. It was clarified that the collection of acoustic data should be port-to-port, however, it appears in looking at the data that sometimes the device was not operational for the entire trip.
203. The size structure of fish was used in a target strength-length relationship to calculate the acoustic indices. It was clarified that the length data were collected by the vessels, as the vessels have a statutory obligation to measure 200-300 fish from each set and report the data entered into an electronic device for submission to the government.
204. Peru presented SC10-HM02, which is a report from the tenth SNP workshop on habitat conditions of jack mackerel and other species of the Peruvian Current in the Humboldt system. This paper updates information about the environmental conditions observed in the area. During summers 2021 and 2022 the distribution of jack and chub mackerel were typical, whereas in 2020 they were observed in oceanic water masses. Both species were available in areas with low chlorophyll concentration and relatively high values of sea surface altimetry and its anomalies.
205. A few vessels are using Bongo nets after every fishing set and collecting samples of eggs and larvae. They started to be used in December 2021. It is intended that these data be used to characterise the habitat of the earlier stages of jack mackerel and other species (egg and larvae), rather than for quantitative assessment of adult jack and chub mackerel.
206. Peru presented SC10-HM03 which includes the list of classified fishing vessels according to their capabilities of collecting acoustic data. This came out of the second HMWG workshop of 2022. The SGAD united the protocol of the industry vessels operating in Peru and in the central-south regions of Chile. The fishing vessels have been classified according to the main echosounder and the type of omnidirectional sonar, with Levels 1 to 4 defined.
207. There are 99 registered vessels in Chile and Peru operating in the jack mackerel fishery and in total there are 66 vessels at levels 1 and 2, which deploy the best acoustic technology. The end goal is a

synoptic survey of the whole area of interest, incorporating data from all suitable vessels. The next step is to draft protocols for data collection and analysis of the acoustic data.

208. The working group suggested that other SPRFMO Members fishing in the area be asked about the acoustics capabilities of their vessels, so that they can be included in the table.
209. Chile presented SC10-HM04, Spatial distribution and biomass estimate of Chilean jack mackerel off South-central Chile. The spatial distribution, mean density and biomass estimates obtained from acoustic data recorded by six vessels of the Chilean jack mackerel (CJM) fishing fleet in their usual fishing operations during 2022 were presented and compared with previous years. The abundance calculation was made for 2019, 2020, 2021 and 2022, based on a completely random sampling design through the geostatistical method. Acoustic data was collected with echointegration systems that allow digital recording of the information during the entire trip of the vessels from the harbour to the fishing grounds and back.
210. For 2022, the estimated abundance of CJM was 1,506 million individuals, which represents a biomass of 1,527,320 tonnes, with a CV of 8.26%. The biomass of CJM estimated in 2022 show an increase of 18% compared to 2021, however the abundance had a decrease of 23.33%, this is mainly because in 2022 there was an increase in the size of CJM, finding only specimens larger than 33 cm, with a mode centred on 43 cm.
211. A comparison was made between results obtained by the CJM annual hydroacoustic evaluation cruise (systematic sampling) in the south-central zone of Chile from 2017 to 2022 and the hydroacoustic evaluation carried out with data recorded by fishing vessels (random sampling) for the same years in the same zone. Results show a remarkable coincidence using both types of sampling.
212. Considering the bias of using this kind of data, recommendation is to continue to analyse these data, and to combine information from multiple fleets to broaden the spatial range of the analysis.
213. The SC acknowledge and appreciates the work the Habitat Monitoring Working Group has done. The SC also acknowledged the cooperation among scientists that contributed to these results.

7.2 Acoustic data analysis review

214. The presentations on this work were summarised in the above section on intersessional activities. The SC asked if the whole time series of acoustic data are available, for both chub and jack mackerel, and it was noted that it is available from 2004, applying the same estimation method for jack mackerel biomass.
215. **The SC** acknowledged the work and:

recommended it continue with a view to evaluating inclusion within the assessment. In response, the Habitat Monitoring Working Group noted that these data collection programmes will continue and is in the workplan. The European Union and Korea noted that they will follow up with providing/recording information in the future and work with the Habitat Monitoring Working Group on those details.

7.2.1 Habitat monitoring data repositories

216. The presentations on this work were summarised in the section above on intersessional activities.

7.2.2 Classified list of fishing vessels deploying digital acoustic systems

217. Document SC10-HM03 provides a summary of vessels based on their capabilities to collect acoustic data. The Habitat Monitoring Working Group faces the need of data and analysis of scientific quality in

order to provide advice for the management of species being exploited. Resources for scientific surveys are scarce; therefore, it is of the highest interest to access 'vessels of opportunity' to acquire data for habitat monitoring purposes. To accomplish this task, a sub-group of specialists was created on the classification of fishing vessels regarding their acoustic data collection capacities (SGAD). The SGAD progressed by agreeing a single classification protocol as follows:

- Level 1 vessels equipped with digital systems (digital echosounders of at least 2 frequencies split beam, scientific sounders or similar; and a sonar). "Level 1+" will be assigned if the sonar is of a digital grade.
- Level 2 vessels equipped with digital systems (digital echosounders of 1 frequency split beam or similar; and a sonar). "Level 2+" will be assigned if the sonar is of a digital grade.
- Level 3 vessels equipped with digital systems (digital echosounders that are problematic to be calibrated; and a sonar). "Level 3+" will be assigned if the sonar is of a digital grade.
- Level 4 vessels with digital systems (digital or analogue echosounders of 1 frequency single beam; and a sonar). "Level 4+" will be assigned if the sonar is of a digital grade.

218. There are minimum conditions to keep for Levels 1 and 2 (need of an annual calibration and noise measurement, need of using a datalogger etc) and possibilities of use (e.g., fish stock biomass, habitat characterization etc). There are 99 registered vessels among Chile and Peru. The number of vessels in the levels 1 and 2, which deploy the best acoustic technology at the moment, are 66 (2/3 of the total), 19 in Chile and 47 in Peru (Table 3).

Table 3. Summary of number of vessels by acoustic classification

Levels	1+	1	2+	2	3+	3	4+	4	Total
Chile	8		3	8			7	3	29
Peru	1	1	22	23	7	4	2	10	70
Total	9	1	25	31	7	4	9	13	99

7.3 Species habitat preferences

7.3.1 Abundance of jack mackerel and chub mackerel in the Peruvian sea between 2020 and 2022

219. In recent years, jack mackerel abundance has increased, that is, an increase towards average levels of abundance seen in past decades. Catches in the same period (1983-2022) also show, in general, better fishing performance in years when calculated biomass has been higher. The highest abundance of jack mackerel, in the zones of operation of the fishing fleet only, calculated through geostatistical methods, was during September 2020, with 855 thousand tonnes, followed by March 2021 with 518 thousand tonnes.
220. Also, in recent years there has been a positive trend regarding the chub mackerel biomass, i.e., an increase towards average levels of abundance in comparison with past decades. Catches in the same period (1983-2022) show, in general, better catches in years when biomass has been higher. The highest abundance of chub mackerel in the zones of operation of the fishing fleet only, calculated through geostatistical methods, was during February 2020, with 247 thousand tonnes, followed by September 2020 with 236 thousand tonnes.

221. The calculated abundance of jack mackerel, using various stratification methods based on acoustic data collected during January 2022, has been in a range of 207 to 974 thousand tonnes in the areas prospected by fishing vessels. The average value of these estimates is 702 thousand tonnes, with a standard deviation of 270 thousand tonnes.
222. The obtained results can be considered experimental, since the restrictions of the current pandemic have not permitted updated calibrations to the echosounders to be performed, so that accuracy of the assessment is an additional source of bias.
223. Document SC10-HM02 provides an update of the analysis on changes in jack mackerel and chub mackerel habitats has been carried out, with emphasis on what was observed between 2020 and 2022. Regarding the habitat, it was observed that during summer 2022 the presence of jack mackerel and chub mackerel has occurred in a typical way, that is, along the fronts between oceanic and coastal waters, unlike the year 2020 in which they were observed in oceanic waters, which was considered unusual at least for that season.
224. From the analysis of the various variables regarding the habitat of jack mackerel and chub mackerel, it is concluded that there were different conditions in recent years, where the only analysed parameter that remained almost invariant is sea surface salinity. Another aspect that is highlighted is that both species have been available for fishing in areas with a low concentration of chlorophyll and with relatively high values of altimetry and sea level anomaly. In the case of jack mackerel, its distribution closer to the coast in the centre-south area was higher than usual; also, there is a lower abundance of adults in the north. On the other hand, for the case of chub mackerel, a latitudinally wider availability was observed. Vertically, jack mackerel had during the summer of 2022 a shallower distribution than that observed during the summers of 2020 and 2021. Also, jack mackerel was densely aggregated and available for fishing during summer 2022.
225. In the habitat reports submitted in the previous two years (2020 to 2021) to the Habitat Monitoring Working Group, as well as in the present case, it should be specified that what has generally been mapped and modelled are the ideal environmental conditions (habitat) for fishing for adult fish of jack mackerel in the short term; a similar type of study is pending for the early stages of jack mackerel and chub mackerel, including their reproductive process and recruitment, in addition to the larval and post-larval stages.

7.4 Symposium update

226. The SC is happy to see the developments and supports the move of the symposium to November 2023. They noted that this represents a lot of work and planning. The SC should advertise to networks that the symposium is going ahead with new dates. The SC further acknowledged contributions from the Commission and from the United States in support of the meeting.

227. **The SC:**

recommended a broader geographic range of members join the Steering Committee. This would expand the reach of invitees for the symposium. In response, the European Union will consider participation and membership.

7.5 Advice to the Commission on habitat monitoring topics

228. The SC noted that the Habitat Monitoring Working Group plans:
- a. two workshops during 2023, re-convening the two sub-groups of specialists that came together in 2022:
 - b. to draft a data collection and preparation protocol (SGAD)
 - c. a data analysis protocol (SGAM) adapting past experiences by CCAMLR and others
229. The activities described above are intended to advance toward the organisation of an Ecosystem Synoptic Survey in the South Pacific aboard fishing vessels (pelagic and mesopelagic fish, macro-zooplankton, deep scattering layers etc) in coming years.
230. The SC also noted that the Habitat Monitoring Working Group is also planning a workshop on the habitat of jumbo flying squid in 2024, and in preparation for this, jumbo flying squid experts are especially invited to join the HMWG to advance knowledge on the habitat topic and to organise this workshop.
231. The SC updated the HMWG workplan to reflect the progress made during 2022 and planned directions for 2023 building on this work.
232. The SC noted the following HMWG action points:
- a. Simrad triangle wave issue still being progressed, particularly for the ES80
 - b. Jumbo squid specialists to join HMWG to advance on the habitat topic
 - c. Workshops next year to continue progress
 - d. List of fishing vessels to be extended to include far seas fleet vessels.

8 Exploratory fisheries

8.1 Exploratory fishery updates

233. In 2018, the Cook Islands was granted permission to undertake a three-year exploratory trap fishing operation provided by CMM 14b, which was updated and is currently 14b-2022. To date, the Cook Islands has successfully completed four trips between 2019 and 2020 with new and important biological information collected for lobster and crab, though crab remains relatively data poor (SC10-Doc33). There were no fishing activities conducted in 2021 due to logistical issues with the vessel; however, they have just recommenced fishing with a new vessel, and this will be reported on at SC11.
234. The new vessel will operate with a different trap design compared to the two previous surveys. Comparative trials will be organised in the 2023 survey to derive a conversion factor, if applicable, between the two trap designs. The SC questioned if the effective area would change under the new trap design. Cook Islands indicated that the traps are the same design but slightly larger, which may affect the saturation rate but will not impact the effective fishing area. The bottom impact may change with the new traps, and this will be evaluated and presented to SC11.
235. **The SC:**

recommended that CMM14b be extended by 1 year to 2024.

236. The European Union presented SC10-DW08, its first survey report for the Exploratory Fishing for Toothfish in FAO area 57.4 in Oct-Nov 2021. The 75t TAC was nearly reached within this period, with by-catch of finfish species reportedly low (1.31%). VME species were virtually absent (0.37 kg), and neither catches nor issues with species of concern such as skates, sharks, mammals or birds were

encountered. Four Patagonian toothfish were caught that had been tagged in the Macquarie Island fishing zone between 17 months and 2 years prior to capture date. 378 Patagonian toothfish were tagged during the survey, with the hope/expectation that this will contribute to understanding the movement and work towards biomass estimates of the regional stock. One section of suspected illegal gillnet gear was recovered in the southern part of the survey area.

237. The SC requested further information on the suspected IUU gear. The European Union indicated that the gear seemed to be relatively recently lost, as it did not have any debris on it yet. The tag returns show movements at shorter but also longer distances and the European Union was surprised to see migration, likely against the current, for over 600 nm distances.
238. Chile reported to the SC that conducting the activities intended under CMM 14d-2020 has not been possible (SC10-DW09). The reason for this being the difficulties faced by the owner of the vessel who was severely impacted by the COVID-19 pandemic. The vessel owner is not able to conduct this exploratory fishing during 2022 either. Chile plans to explain these circumstances to the Commission, and if the health and economic situation allows it in the future, Chile may present a new request for exploratory fishing for toothfish, having regard to the provisions of the relevant SPRFMO CMM on exploratory fishing.
239. New Zealand presented an interim research report for its exploratory toothfish fishery (SC10-DW07). The New Zealand vessel, *San Aspiring*, conducted a single exploratory research trip in SPRFMO during March 2022. During the 29-day survey, the vessel fished in four research areas, setting a total of 89,198 hooks following the required cluster design for a total of 31 longline sets. A total toothfish catch of 38.7 tonnes was taken during the trip. Non-target fish catch was less than 2% of the overall catch, with various *Macrourus* species being the major component. A total of 155 Antarctic toothfish were tagged as part of the joint SPRFMO/CCAMLR stock assessment programme. One tagged toothfish was recovered. Preliminary analysis of the toothfish biological sample indicates that the length frequency distribution, sex ratio, and reproductive status were consistent with previous trips and with the hypothesis of a winter spawning period.
240. The European Union requested clarification on a few points of the New Zealand report and written responses can be found in Annex 5. The SC discussed the captures of both Patagonian as well as Antarctic toothfish within the survey and the usefulness for allocating separate TACs to these species. All current SPRFMO exploratory fisheries CMMs for toothfish include references to both species under one TAC and it was argued that splitting TACs may be premature at this stage.
241. The SC acknowledge receipt of the required exploratory fisheries reports.

8.2 Catch composition research on alfonsino

242. The Species Composition Task Group reported back on their activities, as requested by the Commission, to evaluate patterns in species catch composition to better define the fisheries targeting jack mackerel, redbait, and alfonsino, to distinguish between target and bycatch species (SC10-Doc13). The data series that were provided spanned from 2007 –2021. Most delegations provided all their historical data, while the Russian Federation provided data for 2021 only.
243. The Terms of Reference (ToR) developed for this request were:
- a. Form a task group to evaluate patterns in species catch composition from fisheries targeting jack mackerel; redbait and/or alfonsino in FAO Statistical Area 87 from within the SPRFMO Area;
 - b. Request Members authorise the Secretariat to release tow-by-tow fishing activity and observer data as well as VMS and port inspection information for the purposes of these analyses;
 - c. Analyses must include an evaluation of Russian Federation-flagged vessel(s);
 - d. Develop a suite of metrics that characterise the fisheries;

- e. Assess the variability of catch by species and catch composition at the haul level for the different fisheries; and
 - f. Develop a report to be presented to SC10 that details the analyses undertaken and results summarising patterns in species composition, to include an assessment of target and bycatch species.
244. The SC task group on species composition met intersessional July-August 2022 to discuss and work on the ToRs as set by the Commission 2022. A presentation on the main findings was provided to the SC based on analyses of the available fisheries activity data released by Members for this purpose. It was noted that little time had been available to explore the datasets and that it was generally considered useful to routinely analyse these files to inform the SC on patterns in fishing in the SPRFMO Area, such as analysing latitudinal gradients in the catch.
245. From this, the SC noted:
- a. In total five different clusters have been identified: (1) almost exclusively jack mackerel (CJM); (2) almost exclusively chub mackerel (MAS); (3) a mixture of alfonsino (BYS), redbait (EMM/EMT), blue fathead *Cubiceps caeruleus* (UBA), with small amounts of jack mackerel (CJM), chub mackerel (MAS), and jumbo flying squid (GIS); (4) almost exclusively southern rays bream *Brama australis* (BRU); and (5) unclassified marine fishes (MZZ).
 - b. Metrics could only be defined for the jack mackerel fishery due to the limited data on other fisheries, and could be a successful exercise for future analyses to describe other fisheries.
 - c. The jack mackerel fishery targets and almost exclusively catches jack mackerel.
 - d. The proportion of jack mackerel in a haul is generally 90% or higher.
 - e. If jack mackerel proportions are low in a haul, chub mackerel (MAS) makes up for the largest part of the catch.
 - f. Bycatch of any other species is rare and usually accounts for only a small percentage of total catch.
 - g. Jack mackerel is caught in areas associated with a sea bottom depth between 2,000-4,000 m.
 - h. Jack mackerel is caught high up in the water column at depths between 5-110 m and fishing at greater depths is generally avoided.
 - i. Consecutive hauls contain in almost all cases jack mackerel. Multiple consecutive hauls without jack mackerel are rare.
 - j. The spatial location where jack mackerel has been caught is greatly variable and has changed substantially over the years.
246. Based on the discussions from this task group **the SC:**
- a. noted that there currently is no management in place for (by)catch species such as chub mackerel (MAS), southern rays bream (BRU), jumbo flying squid (GIS), redbait (EMM) and blue fathead (UBA), although these species can occur as the dominant species at the haul level.
 - b. agreed that (by)catches of alfonsino or redbait are inconsistent with the location, gear proximity to the depth, species composition and bathymetry as observed in the targeted fishery on Jack mackerel from 2007-2021 in the SPRFMO convention area
- c. **recommended** that, as specified in CMM 02-2022, all Members and CNCPs comply with catch reporting of all species, as the report noted all (by)catch species are required to be reported in the fisheries activity data.
 - d. **recommended** the development of a working definition of the existing fisheries in SPRFMO covered by existing CMMs.

8.3 Scope and application of the Exploratory Fisheries CMM

247. Document SC10-Doc12_rev1 describes a data-driven approach used to cluster fishing events into groups that share similar characteristics, in an effort to evaluate the scope and application of CMM 13. Fishing events were initially grouped based on species composition, as an indication of similarity, with an additional analysis undertaken to refine the grouping for fishing activities that were more difficult to classify. The second level of clustering took into consideration location of fishing activity, target species, gear depth relative to the seafloor, vessel flag, catch magnitude, and fishing method, in addition to species composition. These analyses were exploratory in nature and should be interpreted as one way to approach the questions surrounding the application of this CMM.
248. The results showed that, although fishing activities often demonstrated high variability in the characteristics used for clustering, there were patterns that emerged from the data that generally aligned with the established SPRFMO CMMs. Clusters generally emerged as being associated with a specific CMM; however, there was variability in the species composition, fishing method, and location within those broader CMM groupings. There were also clusters associated with characteristics that were more difficult to directly associate with a single established CMM, although they shared similar characteristics to one or more.
249. This paper provides a detailed look at the variation among fishing activities within SPRFMO and offers the SC an opportunity to evaluate the different modes of fishing and associated catch compositions with respect to the extant CMMs. It also provides an opportunity to assess whether there are fishing activities that may warrant further consideration as being exploratory in nature.
250. The SC is invited to consider the information contained in this paper and guided by the principles and provisions of the Convention, including the precautionary approach, develop recommendations for COMM11 on the scope and application of the Exploratory Fisheries CMM.
251. The SC noted their appreciation of these types of analyses, and this type of work was included in the multi-annual work plan for further similar analyses.
252. Several Members expressed concern about the scientific basis used to develop targeted fisheries not covered under an existing CMM, such as the fishing for redbait and alfonsino in the eastern part of the SPRFMO Convention Area. An informative discussion with focus on the definition of target species, catch and bycatch was held. From the discussion **the SC:**
- a. noted the existence of fishing activities targeting species that are not covered by an established or exploratory fishing CMM (SC10-Doc12-rev1) and are not associated with a science-based monitoring scheme.
 - b. noted that there has not been an assessment of the precautionary nature of the redbait and alfonsino fishing activities in the eastern side of the SPRFMO Convention Area.
 - c. **recommended**, in line with the tier-based assessment approach adopted by the SC in 2018 (SC6-DW06), the development of assessments for species in the SPRFMO Convention Area that are subject to targeted fishing operations. For example, targeting redbait with catch of alfonsino in the eastern part of the SPRFMO Convention Area should be evaluated to ensure exploitation of these species is consistent with a precautionary approach

9 Other Matters

9.1 Crosscutting issues

253. Chile introduced its document SC10-Doc30 for its research in the area of Salas y Gomez and Nazca ridges. The Salas y Gómez and Nazca ridges are two adjacent seamount chains located in the southeastern Pacific, which stretch across over 2,900 km of seafloor. Ecosystems in this region are isolated from the South American Continent by the Atacama Trench and the Humboldt Current System, harbouring a unique biodiversity marked by one of the highest levels of marine endemism on Earth. These areas also provide important habitats for many threatened or endangered species including whales, turtles, fishes, corals, and a multitude of other ecologically important species. In this region we find the deepest light-dependent marine ecosystems on Earth, numerous species that are new to science, as well as a rich and culturally diverse human seafaring history. As a result, the Salas y Gómez and Nazca ridges have been distinguished by numerous international bodies and organizations, including as an ecologically or biologically significant marine area (EBSA) by the Convention on Biological Diversity (CBD). Over 73% of this area falls within areas beyond national jurisdiction (ABNJ) and in the area of competence of the SPRFMO. Fishing operations targeting species managed by SPRFMO have been minimal to non-existent in this region in recent years. Consequently, scientific information highlights the need and urgency to protect the extraordinary natural and cultural resources of this region, without significantly impacting the fishing industry.
254. For SPRFMO, the authors believe that this could be achieved by: 1) closing the area of 1,097,846 km² in ABNJ of the Salas y Gómez and Nazca Ridges EBSA to fishing activities; 2) work closely with other intergovernmental organizations such as IATTC and CPPS, using existing MoUs; 3) not accepting any proposals for exploratory fishing in the region, since this could irrevocably harm these extremely unique and fragile ecosystems; and 4) expanding research and capacity development activities for the area.
255. The authors believe that the proposed actions would have little to no impact on fishing operations, but they would be key for safeguarding the unique ecosystems of this region, as well as showcase the global leadership of SPRFMO and its Members.
256. The SC noted the paper; however, it was pointed out that in the Cook Islands Fisheries operational plan they clearly indicate their intention to explore some part of that area as part of their exploratory trap fishery, and have begun fishing there. This has not been mentioned in SC10-Doc30 and as such this proposed closure would directly impact a fishery that is already managed under SPRFMO arrangements and would restrict the Cook Islands legitimate right to continue exploring that area.
257. The SC would also like to see a more robust basis for why exploratory fishing should no longer be able to proceed in this area, but some other fishing activities could continue. This paper has not demonstrated that a lobster trap fishery would cause irreparable harm to the Salas-y-Gomez-and-Nazca-ridges. In addition, there is research planned for Salas-y-Gomez-and-Nazca-ridges that is intended to shed some light on closure options, but that work has yet to be presented to the SC so making decisions on closures prior to undertaking the research is premature.
258. The SC noted that the Cook Islands' data that has been presented to the SC in the past has not indicated any severe interactions with any of the species of concern raised in this paper. Trap fisheries are low impact; have a small benthic footprint; pose a low risk to these species of concern; and would not impact fish migratory paths. The SC does not think that the basis for closing this area had been clearly justified and is not able to agree to the recommendations as proposed in SC10-Doc30.
259. DSCC supported by ECO thanked Chile for the presentation on the biodiversity hotspot and noted the international moves to protect it. They asked SPRFMO Members to ensure that the UNCLOS requirement to "protect and preserve the marine environment" as required by UNCLOS and urged SPRFMO Members to show forbearance to avoid fishing in the area.

260. The FAO presented an update on the Deepsea Fisheries (DSF) project (SC10-Obs04). This project is one of four technical projects that make up the Common Oceans Programme. The others are the Tuna, Sargasso Sea and Cross-sectoral projects. The DSF Project was approved in April 2022 and is currently awaiting recruitment of the Project Manager for implementation to begin, as detailed in SC9-Doc13. Initial activities (SC10-Obs4), include implementation of the FAO DSF Guidelines (Sep-Dec 2022), Rapid assessment for stock status (Sep 2022 – Apr 2023) and a symposium on ecosystem and stock productivity models (for 2024-2025).

261. **The SC:**

supported collaboration with the DSF Project on these activities and **requested** that the project liaise with the Executive Secretary and SC Chair as required.

9.1.1 Appointment of Officers

262. John Syslo (USA) continues as Chairperson of the Deepwater Working Group; Niels Hintzen (EU) was elected as new chairperson of the Jack Mackerel Working Group; Gang Li (CN) was re-elected as chairperson of the Squid Working Group with Ignacio Payas (CL) as co-chair; Mariano Gutierrez (PE) and Aquiles Sepulveda (CL) were re-elected as co-chairpersons of the Habitat Monitoring Working Group.

263. Jim Ianelli agreed to stay on as Chairperson of the Scientific Committee as no other nominations were received. The Chairperson:

recommended that the Commission may wish to consider a paid Chairperson that can dedicate more time to the SPRFMO SC. He noted that there are individuals already in the SC that have the capability to take on the role as well but may be hesitant given other responsibilities

264. The SC noted that consistent with the Rules of Procedure, the SC working groups should apply the principles of selection of Chairpersons for a term of two years, with the possibility of re-election for another two years term as a way to ensure alternation among Members.

9.1.2 Planned Inter-sessional activities and funding

265. The Executive Secretary presented SC10-Doc08 which reports on the status of the scientific support fund. The SC thanked the Secretariat for the paper and acknowledged the support provided by the Commission for Scientific Activities as well as the voluntary contributions received from the European Union, China and more recently the USA. The SC noted that, due to the need to move the timing of the Habitat monitoring symposium to avoid other international meetings and secure experts, and new workplan activities, the SC would again need to ask that the Commission agree to carry funds over to the next financial year above the level of the cap specified in the financial regulations.

266. **The SC:**

requested that the Commission approve a derogation to carry over the unused Scientific Support Funds from Financial Year 2022-23 for use in the Financial Year 2023-24.

9.1.3 Next meeting venue and timing

267. Future meeting plans were discussed in the context of SC10-Doc09. Panama confirmed their offer to host the 11th meeting of the Scientific Committee in-person in 2023. The SC thanked the Republic of Panama for their offer. There were no other offers for future SC meetings.

268. **The SC:**

requested the Secretariat to liaise with Panama regarding specific dates and location with consideration for other RFMO meetings. The potential of in person workshops immediately prior to the SC should also be considered when deciding dates. The SC noted that the number of days for the SC11 meeting will be contingent on how much work is done beforehand (refer Section 3.3.1).

269. **The SC also:**

requested that Members and CNCPs consult with their national contacts regarding the possibility of hosting future SC meetings (2024, 2025 and 2026) so that any offers may be presented during the next annual meeting.

9.1.4 Other business

270. The CPPS representative presented a proposed joint workplan (SC10-Obs02) to implement the Memorandum of Understanding existing between SPRFMO and CPPS. The SC thanked CPPS for their proposal and expressed interest increasing cooperation and collaboration between both organisations as envisioned under the existing MoU. The proposed workplan was accepted as a good way to progress this goal and **the SC:**

requested that the Secretariat work with the CPPS Secretariat to advance the described workplan.

9.1.5 Report adoption and meeting closure

271. The report was adopted at 19:00 on 30 September 2022. The SC thanked Dr Jim Ianelli for leading the meeting to a successful conclusion and also thanked the Secretariat for their support throughout the meeting. The SC expressed their extreme gratitude to the Republic of Korea for their fantastic hosting of SC10.

272. The meeting was closed at 19:03 on 30 September 2022.



Annex 1: Collated SC Recommendations and Requests

(Items that the SC “noted” or “agreed” are in the main body of the report and note repeated here)

On Commission guidance and intersessional activities

Section 3.3 Secretariat SC-related activities

- The SC **recommended** that a workplan item be specified to create terms of reference and prioritization for data needs of members. The SC noted the importance of the Secretariat’s work to support data and science needs of SPRFMO and appreciated the direction and activities taken in recent years.

Section 3.3.1 Proposed Guidelines for SC Working and Task Groups

- The SC **recommended** requested that the Commission consider the Secretariat staffing level, and its ability to support the SC given the recent 24 intersessional workshops, and expanded ambition as reflected in the multiannual workplan.
- The SC **recommended** that a schedule for all planned intersessional SC meetings be developed within a month of the Commission meeting with consideration for these concerns.

On Jack Mackerel Items

Section 4.2 Jack mackerel stock assessment

- The SC **recommended** the analysts consider incorporating variable sample sizes based on the data collection procedures. Presently, a single constant sample size is assumed for all years.
- The SC **agreed** to use a 10-year average of the dynamically estimated B_{MSY} as the B_{MSY} value to be taken forward in the forecast. This B_{MSY} is estimated as 7,819 kt in 2022 for the single stock hypothesis.
- The SC **recommended** that the reason for the increase in the dynamically estimated F_{MSY} be further explored.

Section 4.3 Advice to the Commission on jack mackerel

- The SC **recommended** a precautionary 15% increase in 2023 catches throughout the range of jack mackerel- at or below 1,035 kt. This advice for catch limits in 2023 does not depend on the stock structure hypothesis that is used.

Section 4.4.1 MSE update

- The SC **recommended** having a 1-day MSE workshop in conjunction with the 2023 SPRFMO Commission meeting, with external experts invited to lead the workshop. This planning for this workshop will be discussed with the Commission Chairperson after the conclusion of SC10.

Section 4.4.2 Progress on connectivity research task group

- The SC **recommended** that an independent chair should be appointed for the task group thereby using the funds available for this work from the European Union grant. The independent chair should be assisted by two co-chairs, namely Giovanna Sotil (Peru) and Sebastian Vásquez (Chile).
- The SC **recommended** that an online meeting should be set up to present the state of the art in genetic connectivity research. The online meeting should take place in November/December 2022.
- The SC **recommended** that a detailed workplan be prepared for generating the desk study on multi-disciplinary connectivity research. The workplan should be prepared by the chair/co-chairs during November/December 2022.

On Deepwater Items

Section 5.2 Orange roughy stock assessment

- The SC **recommended** that the multi-annual workplan include an item to evaluate the orange roughy population and wider ecosystem impacts of carrying forward of TACs over multiple years.
- The SC **recommended** the following TACs for orange roughy stocks (t):
 - Louisville Ridge Central between 305-334.
 - Louisville Ridge North between 116
 - Louisville Ridge South between 145-160
 - West Norfolk Ridge at 44
 - Lord Howe Rise between 160-174
 - NW Challenger between 131-160

Section 5.3.1 Assessment on how ID guides for VME taxa could be developed

- The SC **recommended** that the updated “Classification guide for potentially vulnerable invertebrate taxa” is published on the ‘Science’ page of the SPRFMO website.
- The SC **recommended** that the updated “Classification guide for potentially vulnerable invertebrate taxa” is used by observers and fishers to identify VME indicator taxa landed as bycatch during bottom fishing operations.

Section 5.4 Further development of VME indicator taxa distribution

- The SC **recommended** that the new habitat suitability models are added to the geodatabase of habitat suitability layers for VME indicator taxa held by the Secretariat so they can be provided to Members and CNCPs to aid in the evaluation of potential encounters with VMEs
- The SC **recommended** the application of the data-driven approach described in this paper to estimate spatial predictions of abundance for VME indicator taxa for which sufficient abundance data exists.
- The SC **recommended** further exploring the application of the principles-based approach for taxa where abundance data are insufficient to apply a data-driven approach until sufficient abundance data becomes available

Section 5.4.1 *Design of a process for reviewing historical bycatch in bottom fisheries*

- The SC **recommended** that for areas within FMAs with a high number of encounter events, or with high bycatch, that fine-scale spatio-temporal investigations of historical bycatch are undertaken.

Section 5.5 *Investigations on the catchability of benthic bycatch*

- The SC **recommended** that the feasibility of developing and funding a research programme to achieve robust estimates of catchability for VME indicator taxa in 2023+ should be explored.

Section 5.7 *CMM 03 request regarding species of concern*

- The SC **recommended** further mitigation options should be sought and implemented to reduce the incidental capture of oceanic whitetip sharks.
- The SC **recommended** that Australia amend its e-monitoring protocols to include video review of all fishing shots where the vessel reports an interaction with a species of concern under CMM 02-2022.

Section 5.8 *Advice to the Commission on Deepwater*

- The SC **requested** that the Commission provides clear guidance to the SC on the spatial scale at which significant adverse impacts should be evaluated, and other matters related to operationalising the objective of preventing significant adverse impacts on VMEs, at the conclusion of the work of the SPRFMO Intersessional Working Group on Bottom Fishing.
- SC10 **requests** that the Commission develop specific objectives for VME management and provide clarity on the choice of an operational / quantitative threshold defining what level of impact would constitute a significant adverse impact.
- The SC **requests** further clarification on the acceptable severity (significance of the damage) and extent (spatial proportion of the VME habitat impacted) of the impact, if these differ from the guidelines provided by the FAO.

On Squid Items

Section 6.3 *Genetics and connectivity*

- The SC **recommended** to develop a Jumbo Flying Squid Genetics and Connectivity Task Group to:
 - Promote the samples (DNA or tissue) exchange to perform the population genetic analysis considering the three phenotype-sizes along the entire species distribution and taking into account a mantle length range of each phenotype size and sampling coordinates.
 - Elaborate a single report on the description of genetic diversity based on mtDNA markers (ND2 and COI), integrating registered DNA sequences from all members.
 - Share and discuss the detailed protocols of NGS techniques applied by members for SNPs identification, and try to implement techniques and standardize analysis criteria, using the sequenced genome of the species as a reference, if possible.
 - Integrate the results of all members for a description of the population genetic variability based on SNPs

Section 6.5 COMM 11 Advice on appropriate level of observer coverage

- Therefore, the SC **recommended** that [with respect to Peruvian artisanal vessels less than 15 m in length that will be authorised and participate in jumbo flying squid fishery in the high seas, in the SPRFMO Convention Area] the programme was suitable and met the requirements for data collection obligations as detailed in paragraph 4 of CMM 16-2022 (Observer programme).

Section 6.7 Advice to the Commission on squid

- The SC **recommended** that for areas within FMAs with a high number of encounter events, or with high bycatch, that fine-scale spatio-temporal investigations of historical bycatch are undertaken.
- The SC **reconfirms** the recommendations about the need for fishing effort limitations [from SC9]

On Habitat Monitoring Items

Section 7.2 Acoustic data analysis review

- The SC acknowledged the work [on intersessional activities and acoustic data analysis] and **recommended** it continue with a view to evaluating inclusion within the assessment.

Section 7.4 Symposium update

- The SC **recommended** a broader geographic range of members join the Steering Committee. This would expand the reach of invitees for the symposium.

On Exploratory fisheries Items

Section 8.1 Exploratory fishery updates

- The SC **recommended** that CMM14b [Exploratory Potting CK] be extended by 1 year to 2024.

Section 8.2 Catch composition research on alfonsino

- The SC **recommended** that, as specified in CMM 02-2022, all Members and CNCPs comply with catch reporting of all species, as the report [from the Species Composition Task Group] noted all (by)catch species are required to be reported in the fisheries activity data.
- The SC **recommended** the development of a working definition of the existing fisheries in SPRFMO covered by existing CMMs.

Section 8.3 Scope and application of the Exploratory Fisheries CMM

- The SC **recommended** in line with the tier-based assessment approach adopted by the SC in 2018 (SC6-DW06), the development of assessments for species in the SPRFMO Convention Area that are subject to targeted fishing operations. For example, targeting redbait with catch of alfonsino in the eastern part of the SPRFMO Convention Area should be evaluated to ensure exploitation of these species is consistent with a precautionary approach.

On Other Matters

Section 9.1 Crosscutting issues

- The SC supported collaboration with the FAO Deepsea Fisheries Project on these activities and **requested** that the project liaise with the Executive Secretary and SC Chair as required

Section 9.1.1 Appointment of Officers

- The SC Chairperson **recommended** that the Commission may wish to consider a paid Chairperson that can dedicate more time to the SPRFMO SC. He noted that there are individuals already in the SC that have the capability to take on the role as well but may be hesitant given other responsibilities

Section 9.1.2 Planned Inter-sessional activities and funding

- The SC **requested** that the Commission approve a derogation to carry over the unused Scientific Support Funds from Financial Year 2022-23 for use in the Financial Year 2023-24.

Section 9.1.3 Next meeting venue and timing

- The SC **requested** the Secretariat to liaise with Panama regarding specific dates and location with consideration for other RFMO meetings [and potential in-person pre-SC workshops].
- The SC **requested** that Members and CNCPs consult with their national contacts regarding the possibility of hosting future SC meetings (2024, 2025 and 2026) so that any offers may be presented during the next annual meeting

Section 9.1.4 Other business

- The SC **requested** that the Secretariat work with the CPPS Secretariat to advance the described workplan [described in SC10-Obs02].



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Annex 3: SC10 Meeting Agenda

<p>1) OPENING OF THE MEETING</p> <ul style="list-style-type: none"> a. Adoption of Agenda b. Meeting Documents c. Nomination of Rapporteurs d. Meeting programme and timetable 	<p>SC10 Papers SC10-Doc01_rev1/Doc02 SC10-Doc03_rev7 SC10-Doc04_rev1</p>
<p>2) ANNUAL REPORTS DISCUSSION</p>	<p>Will be taken as read: SC10-Doc14 -28, 31 -34</p>
<p>3) COMMISSION GUIDANCE AND INTER-SESSIONAL ACTIVITIES</p> <ul style="list-style-type: none"> a) SC multi-annual workplan b) Secretariat SC related activities c) Electronic monitoring to support Commission's objectives 	<p>SC10-Doc05, Obs01 SC10-Doc07 SC10-Doc29</p>
<p>4) JACK MACKEREL</p> <ul style="list-style-type: none"> a) Review of inter-sessional activities b) Review of benchmark assessment and biological reference points c) Jack mackerel assessment d) Progress on connectivity research task group e) Progress on ageing analysis task group f) Advice to the Commission on jack mackerel g) Other jack mackerel matters, MSE update 	<p>SC10-Doc06_rev1 SC10-JM01_rev1, JM02, JM03, JM04, JM05, JM06 SC10-JM08 SC10-JM07 SC10-JM09</p>
<p>5) DEEPWATER</p> <ul style="list-style-type: none"> a) Review of inter-sessional activities b) Orange roughy stock assessments c) VME Encounters and benthic bycatch <ul style="list-style-type: none"> i. VME taxa id guide ii. Further development of VME indicator taxa distribution iii. Process for reviewing benthic bycatch iv. Catchability of benthic bycatch d) Ongoing appropriateness of CMM 03 (BFIWG) e) CMM 03 request regarding species of concern f) Advice to the Commission on Deepwater 	<p>SC10-Doc06_rev1 SC10-DW01_rev1 SC10-DW06 SC10-DW05 SC10-DW03 SC10-DW04 SC10-DW02</p>

<p>6) SQUID</p> <ul style="list-style-type: none"> a) Review of inter-sessional activities b) Squid assessment data (including effort) c) Genetics and connectivity d) Standardise biological sampling e) COMM 11 advice on appropriate level of observer coverage f) Assessment progress and CMM development g) Advice to the Commission on Squid 	<p>SC10-Doc06_rev1, SC10-SQ13_rev3 SQ07, SQ08 SC10-SQ01_rev1, SQ03, SQ12 SC10-SQ05, SQ09_rev1 SC10-SQ11 SC10-SQ02, SQ06 SC10-SQ04, SQ10, Obs03</p>
<p>7) HABITAT MONITORING</p> <ul style="list-style-type: none"> a) Review of inter-sessional activities b) Acoustic data analysis review c) Habitat monitoring data repositories d) Classified list of fishing vessels deploying digital acoustic systems e) Species habitat preferences f) Symposium update g) Advice to the Commission on Habitat Monitoring topics 	<p>SC10-Doc06_rev1 SC10-HM01, HM04 SC10-HM03 SC10-HM02</p>
<p>8) EXPLORATORY FISHERIES</p> <ul style="list-style-type: none"> a) Exploratory Fishery updates (Chile, Cook Islands, EU, NZ) b) Catch composition research on alfonsinos c) Scope and application of the exploratory fisheries CMM 	<p>SC10-DW07, DW08, DW09 SC10-Doc13 SC10-Doc12_rev1</p>
<p>9) OTHER MATTERS</p> <ul style="list-style-type: none"> a) Crosscutting issues (as necessary) b) Appointment of Officers c) Planned Inter-sessional activities and funding d) Next meeting venue and timing e) Other business 	<p>SC10-Doc10, Doc11, Doc30, Obs02, Obs04 SC10-Doc08 SC10-Doc09 SC10-Obs03</p>
<p>10) REPORT ADOPTION AND MEETING CLOSURE</p>	



Annex 4: SC10 Meeting Schedule

26 to 30 September 2022, Seoul, Korea

SC General	Jack mackerel	Deepwater	Squid	Habitat	Exploratory
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Monday 26 September	08:00-09:00	Registration and name tag pick-up	
	09:00-10:30	Item 1 Welcome and Introduction Item 1 Administration arrangements Item 2 Annual reports discussion	
	10:30-11:00	COFFEE BREAK	
	11:00-12:30	Item 3b SC related activities Item 3c Electronic monitoring to support Commission objectives	
	12:30-14:00	LUNCH	
	14:00-15:30	Item 8a Exploratory Fishery updates (Chile, Cook Islands, EU, NZ) Item 8b Catch composition research Item 8c Scope and application of the exploratory fisheries CMM	
	15:30-16:00	COFFEE BREAK	
	16:00-17:00	Item 5a Review of intersessional activities Item 5b Orange roughy stock assessments Item 5c VME encounters and benthic bycatch	
Tuesday 27 September	08:45-09:00	Review of meeting progress and report/advice drafting	
	09:00-10:30	Item 4a Review of intersessional activities Item 4d Progress on connectivity research task group Item 4e Progress on ageing analysis task group Item 4g Other jack mackerel matters, MSE update	
	10:30-11:00	COFFEE BREAK	
	11:00-12:30	Item 4b Review of benchmark assessment and biological reference points Item 4c Jack mackerel assessment	
	12:30-14:00	LUNCH	
	14:00-15:30	Item 5c VME encounters and benthic bycatch (cont.) Item 5d Ongoing appropriateness of CMM03 (BFIWG)	
	15:30-16:00	COFFEE BREAK	
	16:00-17:00	Item 5e CMM03 request regarding species of concern	
Wednesday 28 September	08:45-09:00	Review of meeting progress and report/advice drafting	
	09:00-10:30	Jack mackerel assessment (Working Group)	Deepwater discussion in Venus room, (Working Group)
	10:30-11:00	COFFEE BREAK	
	11:00-12:30	Item 6c Genetics and connectivity Item 6f Assessment progress and CMM development	
	12:30-14:00	LUNCH	
	14:00-15:30	Item 6a Squid intersessional research Item 6b Squid assessment data (including effort)	
	15:30-16:00	COFFEE BREAK	
	16:00-17:00	Item 5f Advice to Commission on Deepwater	

Thursday 29 September	08:45-09:00	<i>Review of meeting progress and report/advice drafting</i>
	09:00-10:30	<i>Item 4c Jack mackerel assessment (cont.) Item 4d Advice to the Commission on jack mackerel</i>
	10:30-11:00	<i>COFFEE BREAK</i>
	11:00-12:30	<i>Item 6f Assessment progress and CMM development (cont.)</i>
	12:30-14:00	<i>LUNCH</i>
	14:00-15:30	<i>Item 6d Standardise biological sampling Item 6e COMM11 advice on appropriate level of observer coverage</i>
	15:30-16:00	<i>COFFEE BREAK</i>
	16:00-17:00	<i>Item 6g Advice to the Commission on Squid</i>
Friday 30 September	08:45-09:00	<i>Review of meeting progress and report/advice drafting</i>
	09:00-10:30	<i>Item 7a Habitat Monitoring review of intersessional activities Item 7b Acoustic analysis review Item 7c Habitat monitoring data repositories Item 7d Classified list of vessels deploying digital acoustic systems</i>
	10:30-11:00	<i>COFFEE BREAK</i>
	11:00-12:30	<i>Item 7e Species habitat preferences Item 7f Symposium update Item 7g Advice to the Commission on Habitat Monitoring topics</i>
	12:30-14:00	<i>LUNCH</i>
	14:00-15:30	<i>Report drafting</i>
	15:30-16:00	<i>COFFEE BREAK</i>
	16:00-19:00	<i>Item 9a Crosscutting issues (as necessary) Item 3a SC Multi-annual workplan Item 9b Appointment of Officers Item 9c Planned inter-sessional activities and funding Item 9d Next meeting venue and timing Item 9e Other business Item 10 Report adoption and meeting closure</i>



Annex 5: Pre-meeting questions and responses on Annual Reports

Questions and responses on the Russian annual report

The annual report discusses 2021 fishing activity in 2021 (page 11) noting a fishery for redbait with bycatch of *Alfonsino*.

Q1: What has been the scientific underpinning to secure a precautionary fishery for redbait?

R1: Almost all caught redbait belonged to the species *Emmelichthys nitidus* Richardson, 1845. It reaches sexual maturity at a length of 20.9 cm. In the catches of the vessel "Admiral Shabalin" almost all of this fish was longer (Fig. X1).

(<https://www.fishbase.se/summary/Emmelichthys-nitidus.html>).

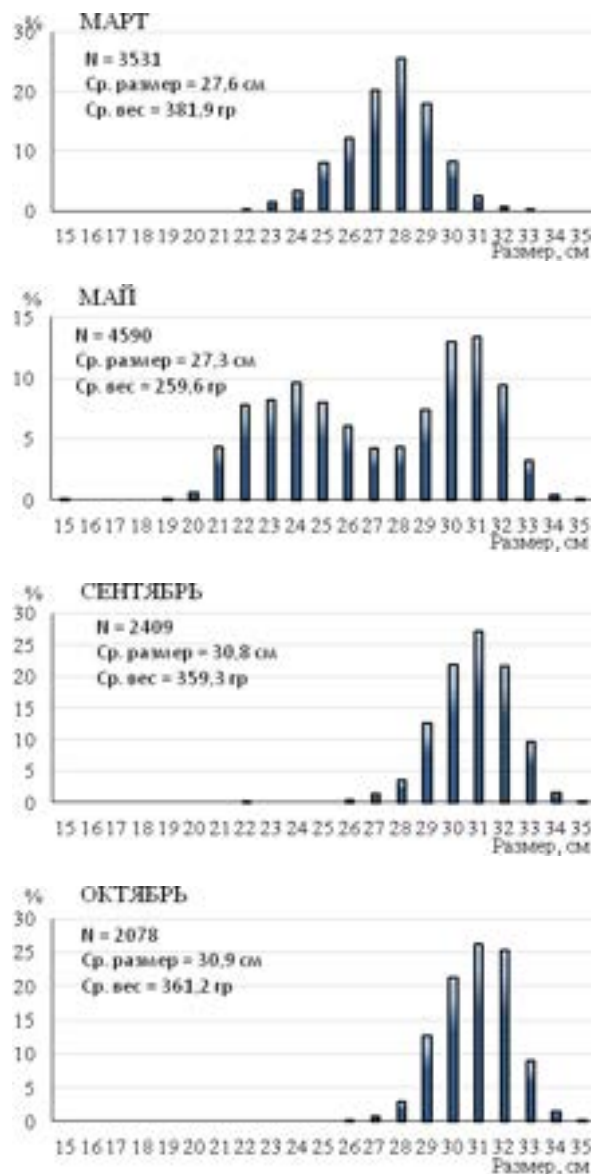


Fig. X1. Length composition of the southern redbait in catches on the seamounts of the Nazca and Sala y Gomez ridges, in March-October 2021.

Most of the individuals caught were in the pre-spawning state (Fig. X2). Immature fish were almost never caught.



Fig. X2. Redbait female with hydrated eggs.

Thus, in terms of the size composition of the catches, the fishery complied with the precautionary principles.

Q2: The report mentions that Alfonsino were distributed at deeper layers. Is my understanding correct that in different hauls redbait was caught and in different hauls Alfonsino was caught? Could some further diagnostics / tables be added to the report on this item?

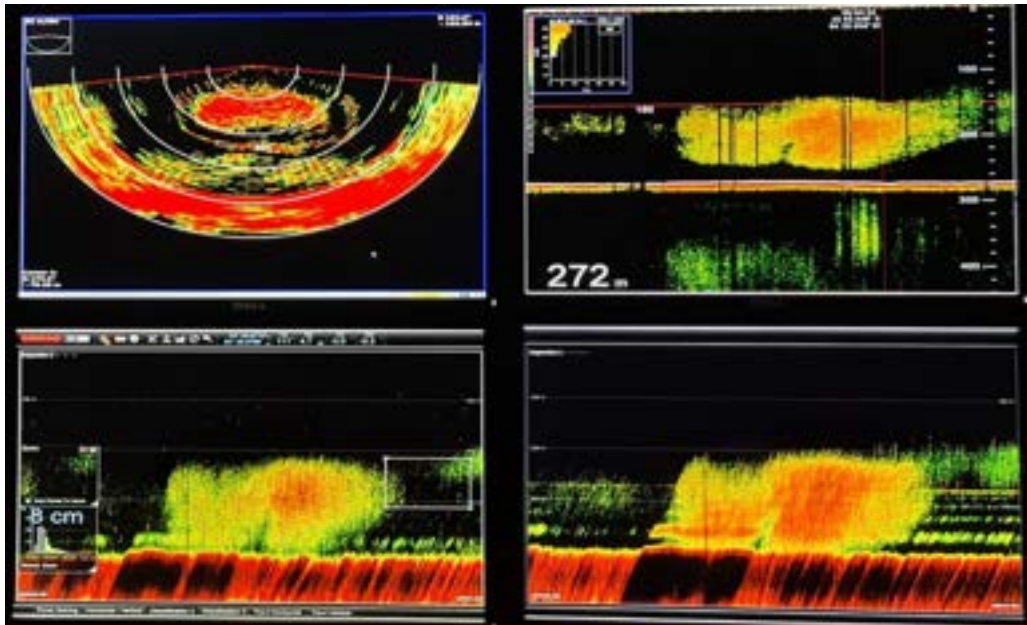
R2: Catches consisting only of redbait were noted, but no catches consisting only of alfonsino. The distribution of alfonsino in deeper layers is confirmed by the following figures: when trawling in the 100–300 m layer, the share of alfonsino in the catches averaged 22%; when trawling at depths of more than 300 m, the share of alfonsino increased to (on average) 41%. The data was obtained as a result of processing trawls from the Observer-Trawl-template, which was sent to the Secretariat.

Q3: What type of technology was used (e.g., echosounders) to differentiate between redbait, alfonsino, other species in anticipation of a haul and how successful were these means to catch those species as was intended.

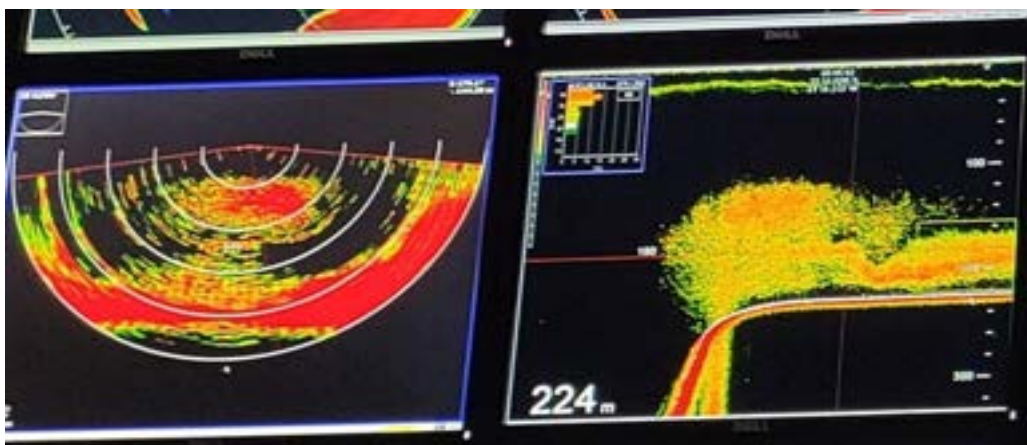
R3: When searching and fishing on the Russian vessel "Admiral Shabalin" the following hydroacoustic equipment was used:

- echo sounder Simrad ES-80
- echo sounder Furuno FCV-30
- Simrad SU-93 all-round sonar

This equipment made it possible to successfully catch aggregations of fish, while in many cases it was difficult to distinguish between the echo recordings of the redbait and alfonsino (Fig. X3).



A.



B.

Fig. X3. Echo recordings of mixed clusters of redbait and alfonsino on the: A - TA-255 Seamount; B - Shorygin Seamount.

Questions and responses on the New Zealand reports

The report on exploratory fishing SC10-DW07 lists that 1 tagged fish had been caught.

Q1: Is my understanding correct that this fish came from the SPRFMO Area where it had been tagged in a previous year rather than coming from the CCAMLR area?

R1: The single tagged Antarctic toothfish retrieved by San Aspiring during the 2021 SPRFMO work was tagged and recovered (with tags fully intact) from the SPRFMO area.

Q2: The report presents bycatches graphically in Figure 4 and 5, however, for interpretation it would be necessary to get an understanding of bycatches for each stratum. Although the overall bycatch levels seem low, this number may be significantly different at the level of a stratum, especially in strata where catches of toothfish are low / absent. Would it be possible to add a table with bycatch information per stratum.

R2: The report SC10-DW07 as submitted, is an interim update to Scientific Committee in fulfilment of paragraph 7 of CMM 14a-2022. As was the case for the last iteration of this research we will provide a much more comprehensive final report following the three years of the survey (e.g., see SC9-DW04 submitted in 2021). However, we provide the additional requested information in the below table.

Fishing Area	Common name	Species	Family	Species code	Catch weight	Catch number
L	Blue Antimora	<i>Antomora rostrata</i>	Moridae	ANT	49.8	5
	Crab spp.	<i>Lithodidae</i>	Lithodidae	KCX	0.7	
	Icefish	<i>Channichthyidae</i> spp	Channichthyidae	ICX	0.3	
	Moray Cods	<i>Muraenolepis</i> spp	Muraenolepididae	MRL	0.0	
	Rat tails, Grenadiers	<i>Macrourus</i> spp	Macrouridae	GRV	26.9	3
M	Blue Antimora	<i>Antomora rostrata</i>	Moridae	ANT	0.6	
N	Blue Antimora	<i>Antomora rostrata</i>	Moridae	ANT	4.2	
	Rat tails, Grenadiers	<i>Macrourus</i> spp	Macrouridae	GRV	18.9	2
Q	Blue Antimora	<i>Antomora rostrata</i>	Moridae	ANT	161.8	9
	Crab spp.	<i>Lithodidae</i>	Lithodidae	KCX	1.2	
	Moray Cods	<i>Muraenolepis</i> spp	Muraenolepididae	MRL	0.6	
	Patagonian Toothfish	<i>Dissostichus eleginoides</i>	Nototheniidae	TOP	22.8	
	Rat tails, Grenadiers	<i>Macrourus</i> spp	Macrouridae	GRV	329.3	11
	Giant purple chimaera	<i>Hydrolagus</i> spp.	Chimaeridae	HYP (NZ code)	117.8	1

Q3: In 2018 the research block L was expanded from the 2016-2017 design. Why did research focus only the 'old' area in 2022 and not the larger block?

R3: So far the historically fished area has been the only fishable area found in the research block to date despite considerable searches from the 2018 year onwards. Exploration of research block L (and others) will continue systematically. It is additionally important to return to areas where fish have been tagged as experience (in CCAMLR) has shown this is the most effective way of recovering tagged fish.

Q4: Could a table with set details (duration of sets, location / midpoint of sets etc) be added to the document? The underlying reason to ask for these details is to assess the area covered by the different sets (as a proxy for CPUE), spacing between sets (as a proxy for aggregation of species and exploratory design), set times (as a proxy for CPUE) etc.

R4: We discussed a similar request in our internal New Zealand deepwater working group workshops (the South Pacific Working Group, SPACWG). However, given the low number of operators (a single vessel in this case) we cannot release location / midpoint of sets as this would contravene the New Zealand regulations around commercially sensitive data release. In particular in this case we believe that providing accurate positional data would not be appropriate as this would provide a clear guide for any IUU fishing that could potentially take place.

It was agreed that further information such as the area covered by the different sets, the spacing between sets and set times would be useful to include in the more comprehensive final report following the three years of the survey.

Q5: The annual report shows that Orange roughy fishery has been almost absent in 2021. Could some explanation be added to the report on why the fishery was almost absent compared to previous years and the implications this has for monitoring and TAC advice from SC in the years to come.

R5: The low number of fishing trips is most likely driven by several factors such as increased cost of fuel, redeployment of vessels into other fisheries and Covid-19 impacting crew supply, in combination with increased compliance requirements. With limited fishery independent data collected from the orange roughy Management Areas, reduced fishing means fishery dependant data will also be limited - see recommendations in SC10-DW01 for further information on data requirements for estimating TAC.

Questions and responses on the Chinese annual report

The annual report on squid lists the number of fishing days and observed fishing days for 2021 as 78,120 and 167 respectively amounting to 0.2% of all fishing days being observed by 2 observers in total.

Q1: How representative are the 167 fishing days observed for the entire fleet? Were these observers on different fishing vessels in different areas? A shift in spatial location of the fishery is shown in map figure 4, as such how representative are biological conditions / length distributions observed in Jan-Apr for the months May-Dec?

The 167 observed fishing days as well as other fishery dependent data derived from 2020-2021 Observer Mission for the Chinese squid jigging fishery. Two observers were deployed, and the entire onboard observation run from October 2020 to April 2021, and a total of 300 fishing days were observed, among which 167 fishing days occurred in the high seas of equatorial waters from January to April 2021. Besides that, studying fleet is another important part of the National OP, especially for length frequency data and biological sampling.

Size distribution of the observer data is very similar to that of the studying fleet data. In the first quarter of 2021, we also found that length frequency is similar because the squid that Chinese fishing vessels target is the small phenotype squid in equatorial waters. So the 167 fishing days and the biological data collected by observers are representative in the northern fishing ground.

Unfortunately, the National OP had to be suspended when the two observers came back to the port because of COVID-19, and no observers were dispatched. However, the studying fleet was still worked, and length data and squid samples covered the whole year and fishing grounds, including high seas off Peru.

So we think that scientific data for the squid fishery of the National OP is representative.

Questions and responses on the Peruvian annual report

The annual report of Peru presents a CPUE as a division of catch and effort.

Q1: Are there opportunities to standardize this CPUE index, accounting for variability in fleet composition.

R1: The first CPUE shown in the report (Figure 14, page 17) corresponds to a nominal CPUE (catch per trip) estimated on a monthly scale for the industrial and artisanal purse seine fleet targeting Jack mackerel. This CPUE is used only for descriptive purposes in order to understand the increases in monthly jack mackerel catches between 2018 and 2022.

A standardized annual version of this CPUE, corresponding to a larger time series (2002-2022), is presented in section 5.2 (2022 assessment), sub-section 5.2.2 of the report (Updated information for the 2022 assessment) (Figure 18, page 25). This CPUE which is used as an index of relative abundance in the assessment of the Jack mackerel Far-north stock has been estimated using the catch and effort data coming from the industrial and artisanal purse seine fleet and using a GAM model where the CPUE (catch per trip) is modelled as a function of the year, month and hold capacity of the vessels (m³). After fitting the model, the annual CPUE is estimated as the year effect while the month and hold capacity are fixed to standard values. Details of the standardization process were presented in document SC9-WP05_rev1.

Since the hold capacity is directly related to the vessel size, the variability in fleet composition is already incorporated in the CPUE standardization in a certain way. However different approaches to incorporate the fleet variability in this process may be explored.

Q2: Would fleet composition of the years be available as an additional table, highlighting average engine size, hold capacity etc?

R2: Yes, a preliminary analysis is presented below.

Additional comments:

The increase in the CPUE of the purse seine fishing fleet targeting the Far north stock could be associated to changes in the distribution of the resource and changes in the composition and efficiency of the fleet.

Regarding the spatial distribution of the resource (as inferred from the spatial distribution of the fleet), we have observed a slightly approaching to the coast and a slightly displacement southward during the last years (Figure XX_1 and XX_2).

Regarding the changes in the composition and efficiency of the fleet, we have observed: i) no changes in the vessel size composition of the industrial purse seine fleet; ii) an increase in the number of the artisanal vessels >20 m³ of hold capacity and a decrease of the number of vessels <20m³; and ii) a greater capacity of the artisanal fleet to explore areas farther from the coast than usual (Figure XX_1 and XX_3).

From all the above mentioned, the CPUE standardization of the purse seine fishing fleet targeting the Far north stock may be reinforced by including data related to the spatial distribution of the resource (e. g. fishing set positions, latitude, distance to the coast or fishing areas) and maybe another way to express changes in vessel composition (e. g. Industrial and Artisanal type, discrete ranges of hold capacity). At the moment, we are working on the recovery and validation of this information as part of the IMARPE's working plan on jack mackerel.

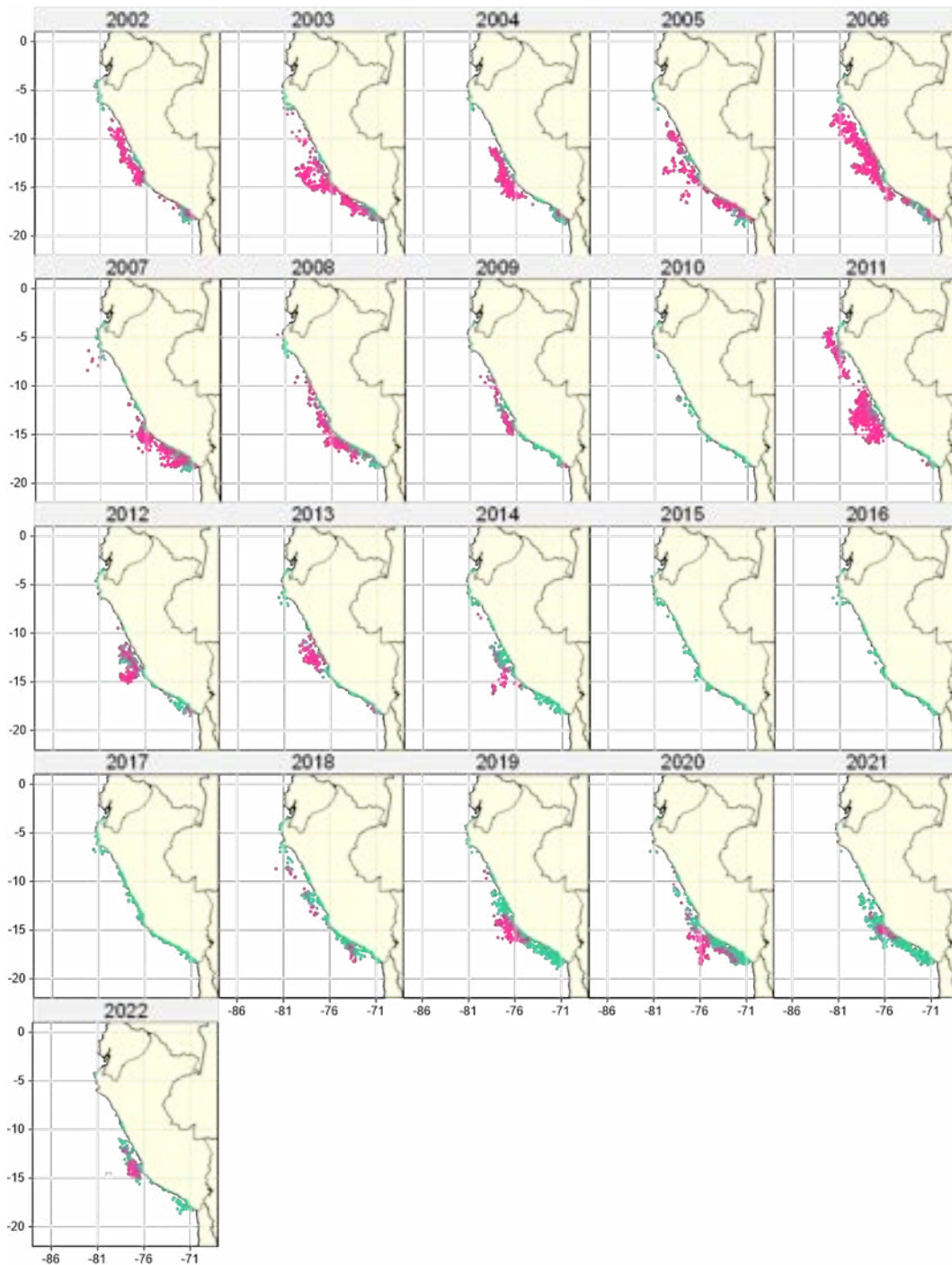


Figure XX_1. Spatial distribution of the fishing areas of the purse seine fishing fleet targeting the JM Far north stock in Peruvian jurisdictional waters. The green symbols represent the artisanal fleet and the pink symbols represent the industrial fleet.

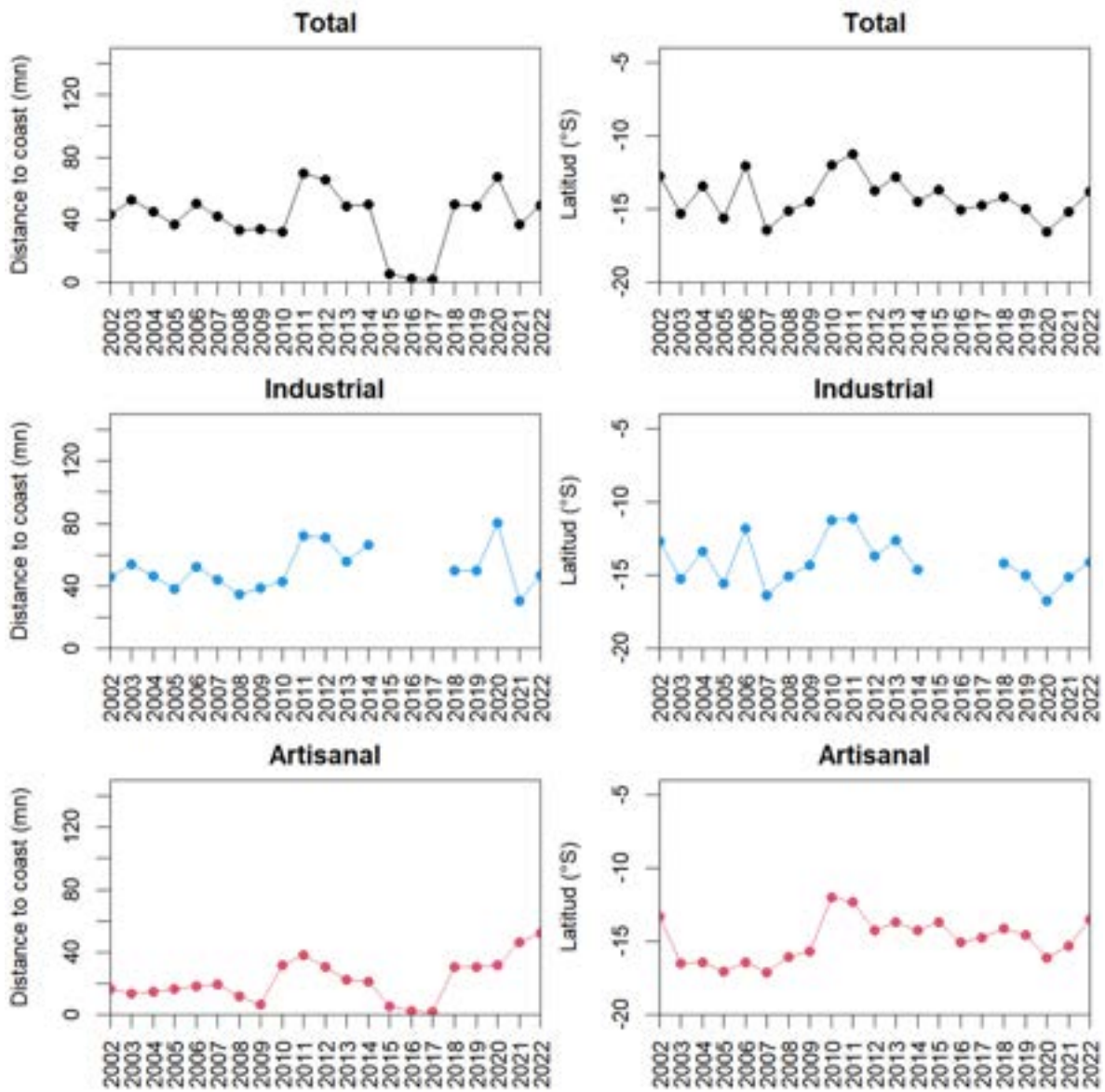


Figure XX_2. Average distance to the coast (left column) and average latitudinal position (right column) of the purse seine fishing fleet targeting the JM Far north stock in Peruvian jurisdictional waters.

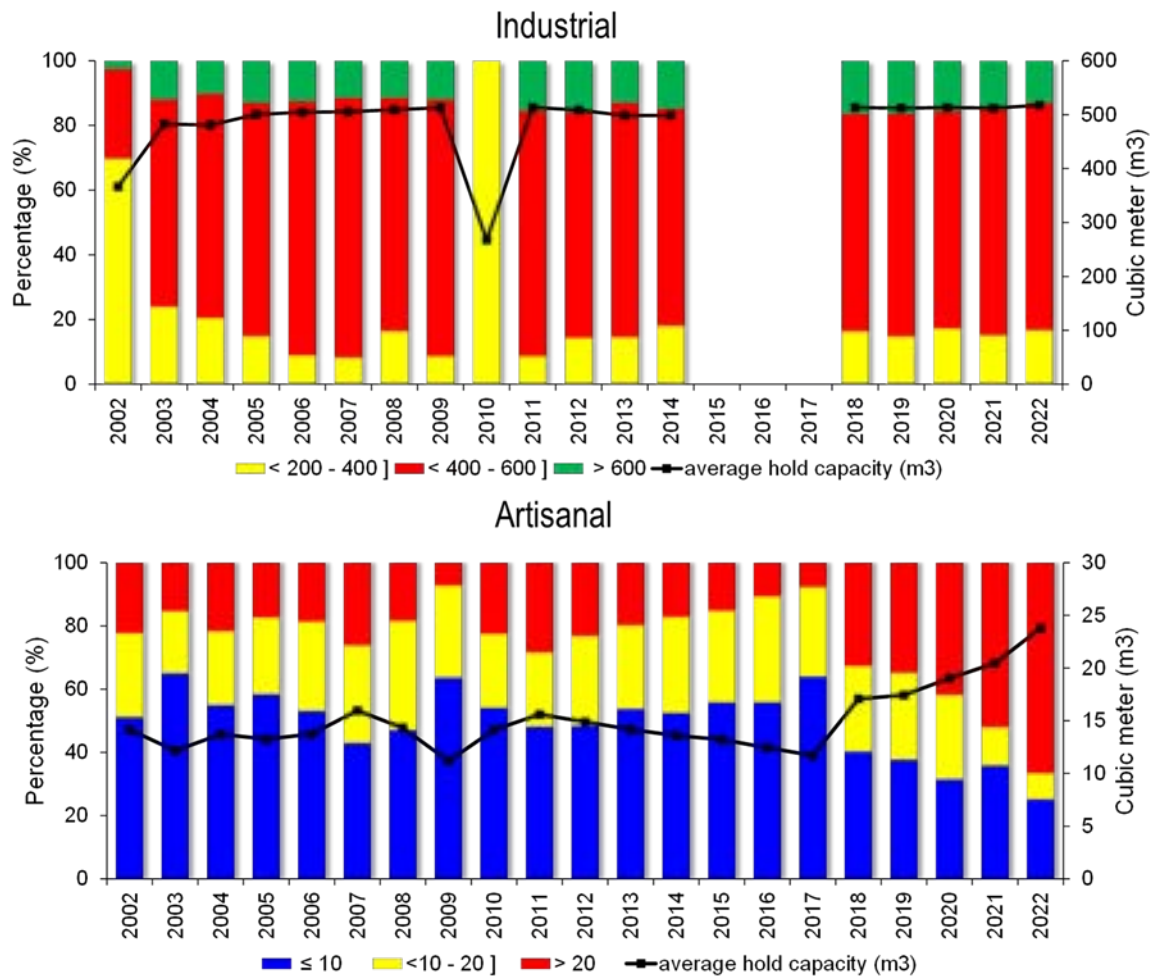


Figure XX_3. Annual composition of the industrial and artisanal purse seine fleet.

Questions and responses on the Chilean annual report:

The annual report of Chile presents a table with number of vessels by hold capacity.

Q1: Would it be possible to address the changes in fleet composition throughout the years, from 1970 onwards, in light of the discussions on technological creep in a working document / annual report, potentially by expanding table I with years prior to 2016?

R1: Information corresponding to the period 2000-2022 is provided in Tables I and II. Records prior to this period, will be sent later because it requires a joint effort by IFOP and SERNAPESCA.

Table I. Number of industrial purse seine vessels catching jack mackerel in the Chilean EEZ and the SPRFMO (combined) area between 2000 and June 2022. Data were assembled by year and hold capacity (2022* preliminary data).

Hold capacity (m³)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0 ≤ 300	41	30	22	19	16	15	7	9	6	6							3						
300 ≤ 600	102	91	71	67	70	70	65	68	62	64	66	62	60	59	59	56	57	57	46	42	42	27	23
600 ≤ 900	52	40	15	14	11	9	10	17	11	12	8	11	9	8	7	7	7	5	5	7	6	5	4
900 ≤ 1.200	34	30	23	22	21	21	20	22	19	19	19	12	6	6	4	3	1	2	1	1	1	1	1
1.200 ≤ 1.500	13	12	12	12	10	9	9	12	10	10	10	10	8	8	6	7	6	8	7	8	8	8	8
1.500 ≤ 1.800	11	11	10	11	11	11	11	11	11	12	12	13	9	9	8	9	9	9	9	10	10	10	10
1.800 ≤ 2.100	3	3	2	2	3	2	4	4	4	6	7	6	6	6	5	4	4	4	4	4	4	4	4
TOTAL	256	217	155	147	142	137	126	143	123	129	122	114	98	96	89	86	87	85	72	72	71	55	50

Table II. Number of industrial purse seine vessels catching jack mackerel in the SPRFMO area between 2002 and June 2022. Data were assembled by year and hold capacity. (2022* are preliminary data).

Hold capacity (m ³)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
0 ≤ 300						2															
300 ≤ 600		2				4	15	15													
600 ≤ 900	6	9	8	5	5	14	6	6	4	4				3	1						
900 ≤ 1.200	14	21	18	18	17	22	19	18	12	5	2	3	2	3		1					
1.200 ≤ 1.500	9	11	9	9	9	12	10	10	8	7	1	2	4	7			1				
1.500 ≤ 1.800	8	11	11	11	11	11	11	12	12	11	2	4	4	9	2	2		2			
1.800 ≤ 2.100	2	2	2	2	4	4	4	6	7	6	4	1	1	4	2		1				
TOTAL	39	56	48	45	46	69	65	67	43	33	9	10	11	26	5	3	2	2	0	0	0

The information reported includes all of the national industrial purse-seine vessels (fleets 1 and 2) that recorded jack mackerel landings. It is important to point out that the changes in the composition of the fleet (especially in the central-southern zone) in 2001, are associated with changes in Chilean regulations.

Finally, it is necessary to comment that the hold capacity that they requested is already included in the CPUE standardization model ($CPUE = t / (CB * pfd)$) and in the fixed effect of CB categories.

Questions and responses on the European Union annual report

The European Union annual report shows, in recent years, the presence of immature individuals (LH < 26 cm) in the size-structured catches.

Q1: Would it be possible to have the historical percentage of immature individuals and the total number of individuals present in the catches of the offshore fleet?

R1: Maturity staging is part of the biological sampling the EU undertakes, together with length measurements, ageing etc.

It would require an analysis however to work up the maturity data to define the immature-mature part of the European Union catch. We are happy to look into this, but it is not an analysis we can deliver within the time frame of this SC as there has not been a request for this data in preparation for the SC we have prepared for.

Please note that all length-frequency data from the EU fishery is available on teams under the data repository.



Annex 6: Scientific Committee Multiannual Workplan

(*New items, with respect to the previous workplan approved by COMM10, are marked in blue*)

1. Jack Mackerel Working Group

Task	Subtask	Timeline	Coordinator	Funding
Jack mackerel assessment	Review available input data JM assessment	2023	US/EU	In-kind
	Finalize development of quality control diagnostics of the catch input data to the assessment	2023	EU	In-kind
	Continue to update and compare standardizations of commercial tuning indices among different fleets and the impacts of increased efficiency in the fleets	2023	??	In-kind
	SC and other funds to support experts during SC assessment	2023+	SC Chair/ Secretariat	NZ\$10K (SC)
	Provide TAC advice according to Commission request (Based on the harvest control rule from SCW14)	2023		In-kind
Jack mackerel MSE	MSE objectives and HCR measures workshop with stakeholders and managers, preferably in connection with the 2023 Commission meeting	2023	EU/Chile	NZ\$50K (EU)
	Develop and carry out MSE evaluation to design alternative management procedures (see COMM8-Report Annex 8b). This to include biological reference points, carryover, accumulating quota over 2 years, and stock hypotheses (paragraphs 80, 102, 118 COMM8-Report). Initial results should be reported to SC11.	2023	EU	NZ\$90k (EU) NZ\$60k (EU)
Jack mackerel connectivity research	Task group on CJM connectivity to improve the understanding of origin and admixture of populations or subpopulations of jack mackerel in the Southern Pacific. Terms of reference as included in G137-2022.	2022-2026	Chile Peru EU	NZ\$15k (EU) Total NZ\$150K/year
Jack mackerel ageing techniques	Task group on CJM ageing analysis and otolith exchange to addresses the current practices in ageing of jack mackerel, the validation techniques to verify ages and a comprehensive documentation of ageing techniques and protocols. Terms of reference as included in SC9.	2022-2024	Chile Peru EU	NZ\$15k (EU) Total NZ\$75K/year

2. Deepwater Working Group

Task	Subtask	Timeline	Coord.	Funding
Orange roughy assessment	<ul style="list-style-type: none"> Explore alternative stock assessment models Estimate stock status Provide advice on sustainable catch levels 	2025	NZ	In-kind
	Evaluate the orange roughy population and wider ecosystem impacts of carrying forward of TACs over multiple years.	2023	NZ	In-kind
Orange roughy assessment data	Coordinate and design acoustic surveys for relevant stocks (<i>intersessional consideration</i>)	2023+	NZ	In-kind

Deep water stock structure	Review the list for deepwater stock structure analyses based on assessment for non-orange roughy stocks	2025		In-kind
	Develop workplan to drive stock structure delineation studies for orange roughy and alfonsino and other key target species	2023+		In-kind
Other stock assessments, & ecological risk assessment	Review the risk assessment of teleost and elasmobranch species considering new available information and methods	2024-2025		In-kind
	Develop a tier-based assessment framework for all DW stocks and recommend relevant reference points and/or management rules for these stocks	2023+		In-kind
VME Encounters and benthic bycatch	Develop VME taxa ID guide for benthic bycatch, following the steps proposed in SC9-DW12, and associated training videos	2023	NZ	In-kind
	Investigate the relationship between benthic bycatch from fishing vessels (including encounter events) and the habitat suitability models	2023+		In-kind
	Investigate the relationship of benthic bycatch to abundance models of VME taxa	2023+		In-kind
	Development of a process to review all recent and historical benthic bycatch data to determine the ongoing effectiveness of the spatial management measures	2023+		
	Assess the feasibility and develop a research programme within the SPRFMO Convention Area to allow the determination of taxon-specific estimates of catchability for VME indicator taxa. <i>(The total cost for such a programme will need to be determined. The two amounts indicated will be used to commence the programme).</i>	2023+	NZ	NZ\$58K (AUS) NZ\$23.6K (SC)
CMM 03 request regarding Encounters with VMEs	Review all reported VME encounters	2023+		In-kind
CMM 03 request regarding ongoing appropriateness	Review all available data and provide advice on the ongoing appropriateness of the management measures to ensure the CMM continues to achieve its objective and the objectives of the Convention	2023+		In-kind

Bottom Fishery Impact Assessment	Exploring how to define the thresholds between good state and SAI for VMEs at different spatial scales, and understanding knowledge gaps and uncertainties	2023	NZ	NZ\$74K (EU)
	The Scientific Committee shall review, and update if required, the SPRFMO BFIAS every 5 years, to ensure that it reflects, as appropriate, best practice	2025		In kind
	Develop abundance models for VME taxa	2023+	NZ	In-kind NZ\$15K (EU)
	Work to reduce uncertainties in risk assessments for benthic habitats and VMEs by exploring: <ul style="list-style-type: none"> the overlap between the spatial distribution of bottom trawling fishing impact (i.e., the 'naturalness layer') and abundance estimates of VME indicator taxa [potentially at multiple spatial scales]. assessing the effectiveness of the Spatial Management Areas (i.e., "post accounting") using abundance estimates of VME indicator taxa 	2023+		In kind
CMM 03 request regarding Marine mammals, seabirds, reptiles and other species of concern.	The Scientific Committee shall provide advice biennially to the Commission on: <ul style="list-style-type: none"> Direct and indirect interactions between bottom fishing and marine mammals, seabirds, reptiles and other species of concern; Any recommended spatial or temporal closures or spatially/temporally limited gear prohibitions for any identified hotspots of these species; and Any recommended bycatch limits and/or measures for an encounter protocol for any of these species. 	2024 2026 2026		In-kind

3. Squid Working Group

Task	Subtask	Timeline	Coordinator	Funding
Squid workshop	Squid Workshop including potential assessment techniques and appropriate measures of fishing effort (prior to SC11)	2023	SQWG Chair/ Secretariat	NZ\$10K (SC)
Squid assessment and CMM development	Develop a plan for more detailed within-season fishery monitoring depending upon the uptake of EM etc.	2024	SQ WG	In-kind
	Develop and present alternative assessment approaches	2023+	SQ WG	In-kind
	Design and evaluate MSE and harvest control rules	2026+	SQ WG	In-kind

Standardise biological sampling	Identify where protocols differ e.g., type of sampling, areas and timing of sampling, ageing	2023	Peru, Chile	In kind
Observer Coverage	Review minimum observer coverage (including in relation to different fleet segments, CMM 18-2020)	2023		In kind
Squid assessment data	Record and analyse diet data	2023+		In-kind
	Revise data template to sufficient detail and create scripts to allow current assessment methods to be used and also future higher resolution approaches (e.g., depletion estimator by phenotype)	2023		In-kind
	Develop a task group to coordinate data and templates needed for assessment models with a goal that the will account for phenotypic spatial patterns	2023-24	SQ WG	In-kind
Squid connectivity	Collect and analyse genetic samplings (Convention area and adjacent National Jurisdiction Areas)	2023		NZ\$47K (China)
	Sample exchange where Members choose to do	2023+		In-kind
	Register DNA sequences in public DNA databases (such as GenBank), considering a list of metadata related to samples analysed (using the template in the SC9-Report).	2023		In-kind
	Description of genetic diversity based on mtDNA markers, integrating data from all Members	2023		In-kind
	Reaching an updated agreement on consistent approaches to genetic analyses for jumbo flying squid	2023+		In-kind
	Use modelling and observation data to predict connectivity and seasonal to decadal variability possibly using genetic, microchemistry, morphometric, parasite prevalence, and tagging experiments	2023+		In-kind

4. Habitat Monitoring Working Group

Task	Objective	Timeline	Coordinator	Funding
Evaluate the applicability of data collected from fishing vessels targeting pelagic species	Mapping spatial-temporal population density distribution of jack mackerel using a combination of the existing acoustic survey data and acoustic information as obtained from industry vessels	Permanent	Peru/Chile	In-kind
	Subgroup of specialists to evaluate advantages and biases of analysis methods Workshop virtually conducted during 2023	2023	Peru/Chile	In-kind
	Subgroup of specialists to organise classification of fishing fleets and develop an inventory of technologies available aboard fishing vessels in order to identify the potential to collect data using the technologies currently being deployed Workshop virtually conducted during 2023	2023	Peru/Chile	In-kind

Task	Objective	Timeline	Coordinator	Funding
Further developments of standardised oceanographic data products and modelling	Characterise jack mackerel habitat (e.g., past studies done in Peru and Chile)	2023	Peru/Chile	In-kind
	Provide ecosystem status overview for SC at seasonal to decadal scale	2024	Peru/Chile	In-kind
	Explore the concept of jack mackerel habitat under an interdisciplinary ontogeny approach for jack mackerel and other species (by life history stages and regions) Workshop virtually conducted during 2023	2023+	Peru/Chile	In-kind
	Define a list of existing environmental data: satellite, acoustic surveys, acoustic fisheries surveys, fishing data, fishing vessel data (VMS, Observers) in time and space that already exist inside the SPRFMO area	2023+	Peru/Chile	In-kind
	Integration of databases provided by different members of the HMWG and other working groups of the SC with linkage to a metadata repository	2023+	Peru/Chile	In-kind
	Develop an inventory of research programmes currently being developed by industry and scientific institutions regarding data collection and monitoring of marine habitats	2023+	Peru/Chile	In-kind
Species behaviour and preferences	Analyse the habitat preferences of jumbo squid and Jack mackerel, noting the useful data and analyses provided by Peru and Chile	2024	Peru/Chile	In-kind
	Habitat suitability modelling of jack mackerel	2023	Peru/Chile	In-kind
	Incorporate behaviour, distribution, and abundance information about mesopelagic, euphausiids and other key species of the Humboldt Current System	2023	Peru/Chile	In-kind
Use of new Tools	Develop new approaches based on different tools such as GAM, GLM, INLA, ROMS, Biogeochemical, geostatistics, big data and machine learning (e.g., for acoustic classification of targets) and utilization of different platforms (Scientific surveys, fishing vessels, satellite oceanography, gliders, buoys, AUV)	Permanent	Peru/Chile	In-kind
Symposium	Symposium on Habitat Monitoring organised after the 2023 meeting of the Commission to review the state of the art of habitat research in order to recommend specific lines of investigation in this topic within the framework of the SPRFMO	2023	Symposium Steering Committee	NZ\$63k (SC) (US\$25k) USA

5. Other (Crosscutting issues)

Task	Subtask	Timeline	Coord.	Funding
Observer programme	Advise on the appropriate levels of observer coverage for each of the major fisheries to: <ul style="list-style-type: none"> Identify bycatch issues related to seabirds and other species of concern (short and medium term) Provide statistically robust quantitative estimates for all species of seabird combined and some of the more common bycatch species (medium term) Periodically review the appropriate levels of observer coverage for SPRFMO fisheries in support of stock assessment needs. 	2023+		In-kind
Seabird/bycatch monitoring	Progress southern hemisphere quantitative risk assessment (SEFRA)	2023+		In-kind
EBSA	Evaluate impacts of fishing activities	2023+		In-kind
CMM 17 Marine pollution	SC Members and CNCPs are encouraged to undertake research into marine pollution related to fisheries in the SPRFMO Convention Area to further develop and refine measures to reduce marine pollution and are encouraged to submit to the SC and the CTC any information derived from such efforts	2023+		In-kind
Climate change	Identify key area and management implications of climate change on VMEs and main fisheries in the SPRFMO area	2023+		In-kind
CMM 02-2020 Data Standards	Review and update data standards to ensure appropriate scientific data are collected in SPRFMO fisheries (Paragraph 8 of CMM 02-2020)	2023+		In-kind
FAO ABNJ Deep Sea Fisheries Project	Planning phase has been completed, the SC supports Secretariat involvement in coordinating activities over their next five-year plan that could involve member scientists and a number of SPRFMO science projects	2023+	Secretariat	In-kind
Alignment	Work involving the alignment of Deepwater and Habitat Monitoring workstreams	2023+		In-kind
Species synopses	To update long version profiles (FAO species synopsis format) for jack mackerel, chub mackerel and jumbo flying squid	2023+		
Research in the Nazca and Salas y Gomez ridges area	Research cruises aimed to know the bio-oceanographic and meteorologic characteristics of Salas y Gomez ridge; as well as biodiversity, current circulation, morphology and geology of sea bottom.	2023-2024	Chile	In-kind
	Climate change impacts of fisheries in Salas y Gomez and Nazca ridges	2023	Chile	In-kind
	Expedition to Salas y Gomez and Nazca aboard oceanographic research vessel	2023-2025 (TBD)	Chile	In-kind
Data Working group	Create terms of reference and prioritization for data needs of Members (SC10 report).	2023+		In-kind
CPPS joint work plan	Increase cooperation and collaboration between both organisations as envisioned under the existing MoU (SC10 report)	2023+	Secretariat	In-kind

Secretariat scientific support	Continue with analyses of catch composition and fishing activities; support CPUE analyses; and general scientific analyses, as capacity allows.	2023+	Secretariat	In-kind
Assessment and monitoring	Development of assessments for species in the SPRFMO Convention Area that are subject to targeted fishing operations (in line with tier-based assessment approach)	2023+		In-kind



Annex 7: Jack Mackerel Summary of Advice

Stock status summary for Jack mackerel, October 2022

Stock: Jack mackerel (*Trachurus murphyi*)

Region: Southeast Pacific

A benchmark assessment for Jack mackerel was carried out in 2022 and has led to a change in the data and the model formulations used for the stock. Reference points have been updated accordingly. The results of the benchmark assessment have been used for the advice for 2023.

In conformity with the approach by the SC since 2012, a comparison was made between the 1-stock (H1) and 2-stock (H2) model configurations for Jack mackerel. Both models showed similar trends with an increasing overall biomass, high recruitments in recent years, and low fishing mortality.

Advice for 2023

Following the guidelines set out by the accepted rebuilding plan and given stock assessment results, 2023 catches should be at or below 1 035 000t.

Stock status

		2021	2022
Fishing mortality in relation to:	F _{MSY}	Below	Below
Spawning stock biomass in relation to:	B _{MSY}	Above 100%	Above 100%

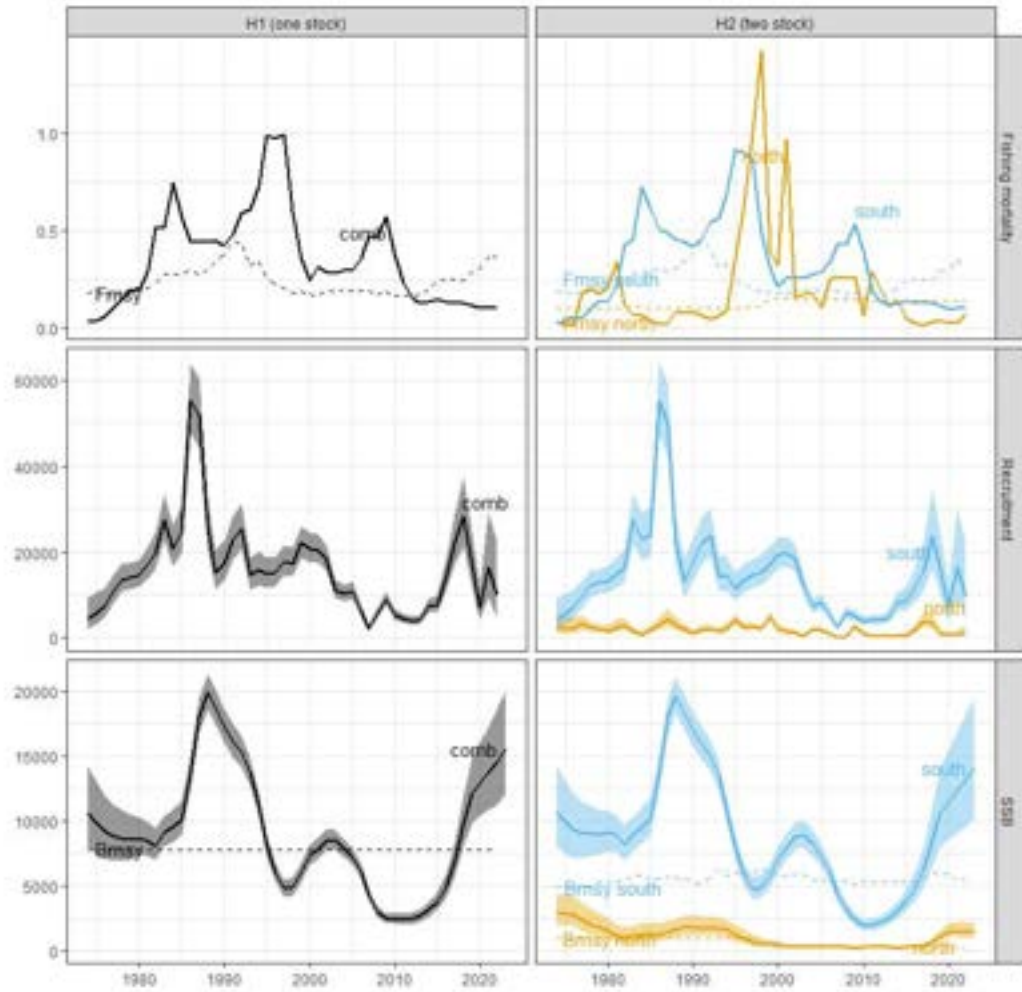


Figure 1. Jack mackerel in the southeast Pacific. Summary of stock assessment estimates over time showing spawning biomass (in thousands of tonnes; top), total fishing mortality (as an instantaneous rate per year; middle), and recruitment at age 1 (millions; bottom). Columns show results for the one-stock hypothesis (H1, left) and two-stock hypothesis (H2, right, “north” stock in yellow and “south” stock in blue). Shaded areas refer to the estimated uncertainties

Table 2: Advised catch, catch limits and reported catch of jack mackerel in the southeast Pacific.

Year	Advice	Recommended Maximum Catch	Catch Limit CMM area	Catch Limit throughout range	Catch throughout range
2013	Projection results under the assumption of recent average recruitment at the levels estimated for the recent period (2000–2012) indicate that fishing mortality should be maintained at or below 2012 levels to improve the likelihood of spawning biomass increasing. This results in catches for 2013 on the order of 441kt or lower.	441,000	360,000	438,000	355,539
2014	In sum, the advice to the Commission is to aim to maintain 2014 catches for the entire jack mackerel range in the southeast Pacific at or below 440 kt.	440,000	390,000	440,000	415,366
2015	The Commission should aim to maintain 2015 and 2016 catches for the entire jack mackerel range in the southeast Pacific at or below 460 kt.	460,000	410,000	460,000	395,210
2016	The SC agreed that the recommendation from 2014 for catches in 2016 is still appropriately precautionary. Namely, that the Commission should set 2016 catches limits for the entire jack mackerel range in the southeast Pacific at or below 460 kt, based on a status quo fishing mortality of 2014.	460,000	410,000	460,000	389,101
2017	On the application of the adjusted rebuilding plan adopted by the 2nd Meeting of the Commission as proposed from SC02, the Commission should aim to maintain 2017 catches for the entire jack mackerel range in the southeast Pacific at or below 493 kt.	493,000	443,000	493,000	406,126
2018	Given current stock status, the second tier of the Jack mackerel rebuilding plan could be applied, thereby substantially increasing the potential catch. Considering the uncertainties in the assessment however, the Scientific Committee adopts a precautionary approach and advises to maintain 2018 catches for the entire Jack mackerel range in the southeast Pacific at or below 576 kt.	576,000	517,582	576,000	527,539
2019	The SC recommended status quo fishing effort which gives 2019 catches throughout the range of the Jack mackerel stock(s) at or below 591 kt. Although the stock is estimated to be in the “second tier” of the harvest control rule (>80% of B_{MSY}), the retrospective analysis shows a tendency of overestimating the stock size. In addition, there is information that suggests that the growth of jack mackerel has been underestimated. These two factors warrant additional precaution and further investigation.	591,000	531,061	591,000	635,569
2020	In line with the accepted rebuilding plan (“Adjusted Annex K”) and because the Jack mackerel biomass is estimated to be above B_{MSY} , the SC recommended a 15% increase in 2020 catches throughout the range of Jack mackerel resulting in a total catch limit at or below 680 thousand tonnes.	680,000	618,001	680,000	725,945
2021	In line with the accepted rebuilding plan (“Adjusted Annex K”) and because the Jack mackerel biomass is estimated to be above B_{MSY} , the SC recommended a 15% increase in 2020 catches throughout the range of Jack mackerel resulting in a total catch limit at or below 782 thousand tonnes.	782,000	710,702	782,000	807,566
2022	In line with the accepted rebuilding plan (“Adjusted Annex K”) and because the Jack mackerel biomass is estimated to be above 100% of B_{MSY} , the SC recommended: a precautionary 15% increase in 2022 catches throughout the range of Jack mackerel- at or below 900 kt.	900,000	817,943	900,000	928,852*
2023	In line with the accepted rebuilding plan (“Adjusted Annex K”) and because the jack mackerel biomass is estimated to be above B_{MSY} , the SC recommended a precautionary 15% increase in 2023 catches throughout the range of jack mackerel- at or below 1,035 kt. This advice for catch limits in 2023 does not depend on the stock structure hypothesis that is used.	1,035,000			

2013 advice was given by the Science Working Group.

* Preliminary value estimated at SC10



Annex 8: Jack Mackerel Technical Advice

Accessible via the [SC10 meeting webpage](#) when available.



Annex 9: Statements

China's Statement on the Observer Coverage in Squid Jigging Fishery

China states the following with the considerations detailed below:

China conducted a simulation study of the observer coverage rate estimation for the squid jigging fishery based on the 2018-2020 Chinese observer program and made a presentation at the squid working group. This document (SC10-SQ02) was submitted to SC for discussion. The main purpose of such simulation is, according to the Commission request, to provide advice on the appropriate level of observer coverage in the Jumbo flying squid fishery in CMM-10. Based on the simulation study, we concluded that, (1) a coverage rate of 1% could keep the Relative Estimated Error (REE) of the mean or Standard Deviation (SD) estimates within 20% or keep the Mean Squared-root Difference (MSD) of the frequency estimates in 50%; (2) a coverage rate of 5% could keep the REE of the mean or SD estimates within 15% or keep the MSD of the frequency estimates in 25%; (3) the current coverage rate (5 full-time observers or 5%) can meet the data requirement and scientific purpose.

It is worth to note that the characteristic of squid jigging fishery is quite different from other fishery such as tuna long line, tuna purse seine, trawlers and so on, which, usually have a high bycatch rate during the operations. However, on the contrary, squid jigging fishery basically has no any interactions with marine mammals as squid jigging is one of the most selective and environmental-friendly fishing gear. This is fully evidenced by the data we collected through observer, logbooks and monthly report throughout those years. So it is not appropriate to compare squid jigging fishery with other fisheries, and it is neither reasonable nor scientific to simply copy other RFMOs' observer coverage rate but ignore the squid fishery's characteristic.

We are of the view that, any increase of observer coverage in Jumbo flying squid fishery should be based on scientific analysis and evidence as well as the evaluation of the adequacy of current observer coverage (5 full-time observers or 5% coverage) conducted by the SC. To propose to increase the observer coverage without scientific evidence is not the right way for decision making.

Shanghai, China, on September 30, 2022

DSCC and ECONZ Statement regarding paragraph 114:

DSCC and ECONZ note that it is important to separate out the policy and scientific aspects of this recommendation. They consider that improving the potential for viable fishery opportunity is not a function of the Scientific Committee.

DSCC and ECONZ also considers that the proposal is unnecessary in scientific terms as there would be enough catch in the limits to undertake an acoustic and target identification fishing.

Further, the DSCC and ECONZ considers there are numerous scientific questions relating to the impacts of fishing a multiple TAC in 1 year, including ecosystem impacts on local populations, on VMEs, and bycatch. An additional question is that if a stock was under 20% and thus well overfished then the current proposals would prevent rebuild and could cause further depletion.

HSFG Statement:

HSFG strongly disagreed with the DSCC statement. They stated that the reduced TAC will make it uneconomical to fish out there, they are the operators and know the costs and risks involved.



SPRFMO SC10-Report

Annex 10. Jack Mackerel Technical Annex

1. Introduction

1. This document and content are based on discussions and analyses conducted at the 10th SPRFMO Scientific Committee (SC) meeting in 2022. The analyses updated the model and assumptions from the jack mackerel benchmark meeting (SCW14) and the report can be found on the meeting link ([here](#)). During SC10, the model was updated with new data, and subsequently accepted by the SC. Discussions at SC10 focused on the following topics:
 - Review and update of data sets;
 - Corrections to an error in the length metrics of the growth model used;
 - Change to the handling of selectivity and weight of the catch at age data for the offshore fleet in 2022.
2. A benchmark workshop for the jack mackerel stock assessment was completed in 2022 (SCW14). The main objective of the SCW14 workshop was to update the assessment with new data based on the updated aging criteria developed by Chile. These data included age compositions and weight-at-age in the catches of Chile and the offshore fleets, and in the acoustic surveys of Central and North of Chile. As a consequence of this update, a new maturity-at-age vector was estimated and a new value of natural mortality was derived ($M=0.28$). Overall, the changes caused by the new aging criteria led to the understanding of a faster-growing species that is earlier to mature.
3. In addition, CPUE indices were updated to include a factor for increases in the efficiency of fishing effort (“effort creep”). The efficiency factor for the offshore CPUE index was estimated to be approximately 2.5% per year, whereas the factor was set at a very preliminary value of 1% per year for the Chilean and Peruvian CPUE indices (not based on a quantitative analysis). Reference points were also updated from previously-set interim levels. In addition, for the single-stock hypothesis, a new reference point has been derived for a limit biomass, B_{lim} , which was estimated at 8% of unfished spawning biomass. Compared to the most recent assessment using the ‘old’ age composition data, the perception of stock is relatively unchanged and is estimated to be well above B_{MSY} , with fishing mortality is well below F_{MSY} .

Scientific Name and General Distribution

4. The Chilean jack mackerel (*Trachurus murphyi*, Nichols 1920) is widespread throughout the South Pacific. It is found along the shelf and oceanic waters adjacent to Ecuador, Peru, and Chile, and across the South Pacific along the Subtropical Convergence Zone in what has been described as the “jack mackerel belt” that goes from the coast of Chile to New Zealand within a 35° to 50° S variable band across the South Pacific.

Main Management Units

5. At least five management units of *T. murphyi* associated to distinct fisheries are identified in the SE Pacific: the Ecuadorian fishery, which is managed as part of a more general pelagic fishery within the Ecuadorian EEZ; the Peruvian fishery, which is managed as part of a jack mackerel, mackerel and sardine fishery directed exclusively for direct human consumption taking place almost entirely within the Peruvian EEZ; the northern and the central-southern Chilean fisheries which are managed as separate management units, with the northern fishery being mostly within the Chilean EEZ and the central-southern Chilean fishery which straddles the Chilean EEZ and the adjacent high sea; and, the purely high sea fishery which is a multinational fishery being managed entirely within the context of the SPRFMO. At present there is no directed fishery for *T. murphyi* in the central and western South Pacific and around New Zealand, where incidental catches are very small.

Stock Structure

6. There are a number of competing stock structure hypotheses, and up to five and more separate stocks have been suggested: i) a Peruvian stock (northern stock) which is a straddling stock with respect to the high seas; ii) a Chilean stock (southern stock) which is also a straddling stock with respect to the high seas; iii) a central Pacific stock which exists solely in the high seas; iv) a southwest Pacific stock which exists solely in the high seas; v) and, a New Zealand-Australian stock which straddles the high seas and both the New Zealand and Australian EEZs. Regarding specifically the eastern and central South Pacific, the SPRFMO has identified the following four alternative stock structure working hypotheses: 1) jack mackerel caught off the coasts of Peru and Chile each constitute separate stocks which straddle the high seas; 2) jack mackerel caught off the coasts of Peru and Chile constitute a single shared stock which straddles the high seas; 3) jack mackerel caught off the Chilean area constitute a single straddling stock extending from the coast out to about 120°W; and, 4) jack mackerel caught off the Chilean area constitute separate straddling and high seas stocks.
7. Accordingly, the Jack Mackerel Sub-group (JMSG) of the Science Working Group (SWG) of the SPRFMO at its 11th Session ([SWG-11](#)) carried out parallel assessments of the jack mackerel stock(s) in the Eastern South Pacific under the two main working hypotheses already identified. That is: jack mackerel caught off the coasts of Peru and Chile constitute a single shared stock which straddles the high seas (hypothesis 1); or that jack mackerel caught off the coasts of Peru and Chile each constitute separate stocks (the Peruvian or northern and the Chilean or southern stock) which straddle the high seas (hypothesis 2). In following up on the SWG-11 recommendations, the SPRFMO Commission at its 1st Commission Meeting requested the newly established Scientific Commission (SC) to continue the work on evaluating alternative hypotheses on jack mackerel stock population. Pending more conclusive findings on the stock population structure of jack mackerel, the 2nd Commission meeting requested the SC to continue and expand the stock assessment work under both stock hypotheses considered in the 11th SWG Meeting, and this continues to be one of the main tasks undertaken at SC10.

Fishery

8. The fishery for jack mackerel in the south-eastern Pacific is conducted by fleets from the coastal states (Chile, Peru and Ecuador), and by distant water fleets from various countries, operating beyond the EEZ of the coastal states.
9. The fishery by the coastal states is conducted by purse seiners. The largest fishery exists in Chile, where the fish are used for fish meal. In Peru, the fishery is variable from year to year. Here the fish are taken by purse seiners that also fish for other pelagic species (e.g., anchovy, mackerel, sardines). According to government regulations, the jack mackerel in Peru may only be used for human consumption. Ecuador constitutes the northern fringe of the distribution of jack mackerel. Here the fish only occur in certain years, when the local purse seiners may take substantial quantities (70,000 tons in 2011). Part of the catch is processed into fish meal but recently jack mackerel has been promoted to be used for human consumption.
10. The distant water fleets operating for jack mackerel outside the EEZs have been from a number of parties including Belize, China, Cook Islands, Cuba, European Union (Netherlands, Germany, Poland and Lithuania), Faroe Islands, Korea, Japan, Russian Federation, Ukraine and Vanuatu. These fleets consist exclusively of pelagic trawlers that freeze the catch for human consumption. In the 1980s a large fleet from Russia and other Eastern European countries operated as far west as 130° W. After the economic reforms in the communist countries around 1990, the fishery by these countries in the eastern Pacific was halted. It was not until 2003 that foreign trawlers re-appeared in the waters outside the EEZs of the coastal states.
11. The jack mackerel fishery in Chilean and offshore waters is mono-specific. In the offshore fishery, the catch consists of 90 – 98% jack mackerel, with minor bycatch of chub mackerel (*Scomber japonicus*)

and Pacific bream (*Brama australis*). The available time series of jack mackerel catches in the south-eastern Pacific by Member are shown in Table A10.1 with the catch summarised by fleets in Figure A10.1.

Management

12. Jack mackerel were managed by coastal states beginning in the mid-1990s. National catch quotas for jack mackerel were introduced by Peru in 1995 and by Chile in 1999. Peru introduced a ban on the use of jack mackerel for fish meal in 2002. For the international waters, the first voluntary agreement to limit the number of fishing vessels was introduced in 2010. Catch limits for jack mackerel were established for the south-eastern Pacific starting from 2011.

Information on the environment in relation to the fisheries

13. Important environmental events such as the El Niño effect of 2016 affect oceanographic dynamics. During such events, the depth of the 15°C isotherm and oxycline change significantly affecting the spatial distribution of jack mackerel and their availability in different regions (see for example the work of the Habitat Monitoring Working Group of the Scientific Committee as reported in previous [meetings of the Scientific Committee](#)). The extent that such changes affect the overall population productivity is unclear.

Reproductive Biology

14. The main spawning season happens from October to December; however, spawning has been described from July to March. Gonadosomatic index and egg surveys have been used to determine the time of spawning.

2. Data used in the assessment

Fishery Data

15. The catch data for the model represents a summation of catch values from various Members (Table A10.1) to form four “fleets”, which are intended to be consistent with the gear and general areas of fishing (Figure A10.1). The summarised catches from each of these fleets are presented in Table A10.2.
16. Length data are available from all major fisheries both inside and outside the EEZs. Length distributions from Chile and the older international fleet were converted into age distributions using annual Chilean age-length keys. The more recent length composition data from China were converted to age compositions by applying Chilean age-length keys as compiled by quarter of the year and then aggregated (Table A10.3, Table A10.4, and Table A10.5). The EU provided age-length keys which were used to convert EU length distribution data to age. For Peruvian and Ecuadorian fisheries, length frequency data (Table A10.6) were used directly and fit within the model according to the specified growth curve.
17. In the benchmark workshop prior to SC10 (SCW14), a new Chilean ageing method was included into the assessment. This resulted in revisions to age composition data for both Chilean fleets, as well as the offshore fleet. In addition, several biological variables (weight, maturity, natural mortality) were re-estimated and updated. Some detail on the revisions to the historical data and the validation approach can be found in the SCW11 [report](#).
18. In the benchmark workshop SCW14, it was further agreed that a protocol should be developed to include self-sampling data from the Offshore fleet into the assessment. As introduced in meeting documents SC10-JM03 and SC10-JM04, the protocol stipulates that length-distributions from quarters that are not sampled in the observer program but that are covered in the self-sampling, will be included

into the assessment. For SC10 this meant that self-sampling data for 2021_Q2, 2022_Q2 and 2022_Q3 were included in the assessment data.

19. Several CPUE data series are used in the model, with changes in methodology to calculate the series introduced during SC4, SC6, SC7, SC9 and SC10. From SC10 onwards, the CPUE series include a factor that compensates for efficiency increases of fishing operations as estimated in global effort analysis (e.g. Rousseau et al 2019).
20. For the Chilean purse seiner fleet in the southern-central area, a “Generalized Linear Model” (GLM; McCullagh & Nelder, 1989) approach has been used to standardise the CPUE. Here trip-based CPUE has been modelled as a linear combination of explanatory variables, with the goal of estimating a year-effect that is proportional to jack mackerel biomass. Factors in the GLM included year, quarter, zone, and vessel hold capacity. Effort units were computed as the number of days spent fishing by each vessel. This CPUE series was revised during SC4 to exclude trips with no jack mackerel catches. This was preferred because it better reflected changes in management over time (particularly the introduction of vessel-level quotas starting in 2000). To account for changes in fleet behaviour arising from the changes in management, the revised CPUE series from the GLM was modelled with a catchability change in year 2000. In addition, an overall increase of technical efficiency of 1% per year has been included during SC10.
21. Prior to the 2018 assessment (SC6), Peru presented a CPUE abundance index derived from the industrial purse seine fleet. This fishery has a strong focus on anchoveta and other stocks such as chub mackerel (*Scomber japonicus*) and bonito (*Sarda chiliensis*). With increasing catch rates in those fisheries, the focus on jack mackerel shifted, and the CPUE index was deemed to be no longer indicative of jack mackerel biomass. This resulted in a lack of CPUE data between 2015 and 2017. Thus, for the 2018 assessment CPUE indicators were calculated based on artisanal and small-scale fleets. These fleets are and have been targeting jack mackerel on a regular basis, operating at a closer distance to the coast than the industrial fleets. Historical data on catch by haul capacity for the artisanal fleets were recovered beginning in 2000. A Generalised Additive Model, in which the dependent variable (catch per trip) is gamma-distributed using a log-link function, was applied by removing the operational (holding capacity) and temporal effects (year, month). The GAM combined data from both artisanal and industrial fleets, although concerns were raised about the accuracy of the historical data (e.g., from missing fleet identifiers) and thus there is a need for continued development. In addition, an overall increase of technical efficiency of 1% per year has been included during SC10.
22. Up to the 2017 assessment (SC5), the European Union CPUE index (un-standardised), the Russian CPUE index (un-standardised) and the Chinese CPUE index (standardised with a GLM) were included as separate indices of exploitable biomass for the offshore fleet. However, it was noted that these fleets shared similar temporal and spatial dynamics and the European Union and Russian data were incorporated into a combined standardised offshore CPUE index in 2018 (SC6), with the Chinese CPUE kept separate. In 2019 (SC7), haul-by-haul data of China, EU, Korea, Vanuatu, and Russia were combined and standardised into a single Offshore CPUE time series ([SC7-JM06 rev1](#)). The standardisation procedure followed what had previously been done during SCW6. A GAM was fit to catch data with an offset of log(effort) assuming a negative binomial distribution. Vessel, month of the year, year, and El Niño effect (sea surface temperature anomaly) were taken as linear effects while two-dimensional smoothers were applied to correct for spatial effects. In SC9, the vessel explanatory variable was replaced by vessel contracting party, which resulted in CPUE indices that were similar in trend ([SC9-JM02](#)). Note that the start year of the various offshore CPUE indices has varied over time. Originally, when the European Union CPUE index was separate from the Chinese and Russian CPUE indices (SC5), the index began in 2003. In SC6, when the Russian CPUE data was incorporated into the combined Offshore index, this index was taken as beginning in 2006. From 2019 (SC7), the combined Offshore CPUE index has been included in the stock assessment as an index for the period from 2008 to the

present. In addition, an overall increase of technical efficiency of 2.5% per year has been included during SC10.

23. In all standardised CPUE series (Table A10.7), no explicit correction for search time has been incorporated. In some products, such as the offshore CPUE, effort in weeks is taken rather than effort by day (of positive registrations) to account for searching time. However, the inability to consistently define and accurately measure searching time remains an issue.
24. In SCW14, advances in fishing technological efficiency (also termed “effort creep”) were explicitly incorporated in the CPUE standardization process. As mentioned previously, annual effort creep value of 2.5% was thus applied to CPUE for the offshore fleet (details in [SCW14-WD01](#)). For the other CPUE series from Chile and Peru, no formal evaluations of technological advances had been conducted. As such, an interim level of 1% efficiency improvement was applied to each series. It was agreed that further analyses would be required to understand the model reaction to the effort creep factor and noted that at this stage this factor does not appear to have an important effect on model results. SCW14 further recommended specific studies to evaluate the potential efficiency improvements for these fleets, including the technical equipment (e.g., those under consideration by the SPRFMO Scientific Committee’s Habitat Monitoring Working Group), and any other factors that could influence effective fishing effort.
25. Further, the lack of a defined protocol for CPUE standardisation has been noted. Development of CPUE standardisation guidelines has thus been identified as a priority to improve the quality of the assessment.

Fisheries Independent Data

26. The Chilean jack mackerel research programme has included surveys using hydro-acoustics and the daily egg production method (DEPM). Acoustic estimates have been used as relative abundance indices. For the northern region (N-Chile), data on acoustic biomass and numbers, and weights at age are available from 1984-1988, 1991, and 2006-2021. For the central-southern regions, these data are available from 1997 to 2009. In previous jack mackerel assessments, the acoustic survey in northern Chile was assigned the same selection-at-age curve as the northern Chile fishing fleet. However, given that the survey age composition data indicate that it catches younger ages than the fishing fleet, the SC6 considered it more appropriate to assign the survey its own selectivity.
27. Egg surveys (using DEPM) were conducted on an annual basis from 1999 to 2008 along the central zone of the Chilean coast in order to assess the biomass of the spawning stock. In addition, there are estimates of abundance and numbers-at-age for the central-southern regions based on DEPM for the years 2001, 2003, 2004, 2005, 2006, 2008. Egg survey results have been used as relative abundance indices in the models. Age composition data from the acoustic and DEPM Chilean surveys are shown in Table A10.8, Table A10.9, and Table A10.10.
28. In SC10, as mentioned previously, changes were made to the Chilean ageing methods. These resulted in updated historical age composition data for both Chilean surveys and the commercial catches.
29. The Peruvian jack mackerel research programme includes egg and larvae surveys and hydro-acoustic stock assessment surveys. Results of these egg and larvae surveys provide information on the spatial and temporal variability of jack mackerel larvae along the Peruvian coast beginning in 1966. Acoustic biomass estimates of jack mackerel were available beginning in 1983. As these surveys had Peruvian anchoveta as the target species, the data only covered the first 80 miles, and eventually 100 miles from the coast. Corrections to compensate for this partial coverage of acoustic biomass estimates of jack mackerel were made using an environmental index describing the potential habitat of this species based on available monthly data on SST, Sea Surface Salinity (SSS), water masses (WM), oxycline depth (OD) and chlorophyll (CHL). An alternative acoustic index for Peru was presented at SC3. This was constructed using backscatter information without converting the information to biomass estimates

using length-frequency data. This method was proposed to address the reduced quality of the available length-frequency data in recent years. This alternative series was included in the jack mackerel assessment in SC4, thus replacing the Peruvian acoustic series used in previous assessments. The last value provided for this series corresponds to 2013. The El Niño conditions in 2014 and 2015 affected the distribution of jack mackerel making them more dispersed and outside the area covered by the anchovy survey. Further work is needed to standardise and analyse the survey data to develop a reasonable index from the later data. The index has been retained in the current assessment and extends from 1985 to 2013.

30. Acoustic surveys, to estimate the biomass and distribution of jack mackerel, have also been conducted along the Chilean coast, inside and outside of the EEZ, using scientific vessels. Additionally, comprehensive acoustic surveys have been conducted from the Chilean commercial fleet. The time series of available acoustic estimates extends from 1984 to present day (intermittently, depending on the area). All abundance indices (fishery CPUE and survey) series used in the model are presented in Table A10.7.

Biological Parameters

31. The maturity-at-age for jack mackerel in Chile was estimated by Leal et al. (2013) and has been updated by applying the new ageing criteria (SCW14-WD04) to the otoliths and histological maturity data collected between September 2011 and January 2012. Overall, the changes caused by the new aging criteria led to the understanding of a faster-growing species that is earlier to mature. Maturity-at-length was consistently observed with L_{50} at about 22-23 cm fork length (FL). The maturity-at-age values, for the single/Southern stock and those for the far-north stock, are shown in Table A10.11.
32. To fit the length composition data from the far-north fleet, a growth curve was used to convert age compositions predicted by the model to predicted lengths, with the conversion occurring within the model. The values for the von Bertalanffy growth parameters are given in Table A10.12. It was noted in SC10 that the growth parameters reflected fish Total Length, whereas the data were in Fork Length. The parameters were since corrected. Ageing imprecision was previously acknowledged using an age-error matrix, as shown in Table A10.13. However, because this matrix is based on expert judgement instead of empirical data, the discussions during SC4 led to selecting the final assessment model with this ageing error option turned off.
33. Mean weight-at-age is required for all fishing fleets and biomass indices in order to relate biomass quantities to the underlying model estimates of jack mackerel abundance (in numbers). The four weight-at-age matrices for the fishing fleets correspond to: Fleet 1 (northern Chile), Fleet 2 (central-south Chile), Fleet 3 (the far north fleet) and Fleet 4 (the offshore trawl fleet). These values are shown in Table A10.14, Table A10.15, Table A10.16, and Table A10.17.
34. For the Chilean fleets, the mean weight-at-age is calculated by year by taking the mean length-at-age in the catch and a length-weight relationship derived for the year. Before SC3, the same weight-at-age matrix was used for the Northern Chilean Fleet (Fleet 1) and the Southern Chilean Fleet (Fleet 2). Beginning in SC3, a weight-at-age matrix specific for Northern Chile has been applied. The method uses two information sources: the length-age keys and the parameters of the weight-at-length relationship from IFOP's monitoring programme of the Chilean fisheries. The information was separated into two zones which correspond to fishing areas (and acoustic surveys) that occur in Chile. Annual weight-at-length relationship was fitted to the data by each fleet independently, and these relationships were applied to mean length-at-age within each zone, resulting in the weights-at-ages seen in Table A10.14 and Table A10.15. The information covers the period 1974-2021; for earlier years the weight-at-age from 1974 was used.

35. For the far north fleet, mean weight-at-age is fixed for all years and was initially calculated from the time-invariant mean length-at-age estimated from the growth function (Table A10.12). The information covers the period from 1970 to present year (Table A10.16).
36. The weights-at-age for the offshore fleet are derived from EU age-length keys as well as age-length keys from the Chilean South-Central fleet. The EU reported both age, length, and weight data, allowing for weight-at-age to be reported for their catches based on observer programme data compiled in 2019. For China, Vanuatu, Russia and Korea, length-weight information is transformed using the Chilean fleet-2 quarter-specific age-length keys (Table A10.17). Note that for most countries weight-at-length information is available. In some years however, including 2018, weight-at-length data from the Chinese fleet were missing, which resulted in using the length-weight relationship from the Chilean fleet 2. As of SCW14, due to the update in the Chilean ageing criteria, these weight-at-age data were updated for the time series beginning in 2015.
37. Historically, missing weight-at-age data were replaced with data from the previous year. In SCW14, it was recommended that those missing data be replaced with appropriate mean values by fleet instead. However, this has not been done during the SC10 assessment.
38. In SCW14, the Natural Mortality Tool (<https://connect.fisheries.noaa.gov/natural-mortality-tool/>) was used to derive values of M range from roughly 0.1 to 0.35 with a mode at 0.28. The L_{∞} was assumed to be 80.4cm, k was assumed at 0.16 and t_0 at -0.356 . The value of 0.28 was used for the assessment in SC10. The estimated M values are assumed to be the same for all ages and all years within the given stock (see Table A10.12).

Data Sets

39. A full description of data sets used for the assessment of jack mackerel is in [Annex 3](#) of the SC Data workshop 2015. Summaries of all data available for the assessment are provided in Table A10.18 and Figure A10.2.

3. The Assessment Model

40. A statistical catch-at-age model was used to evaluate the jack mackerel stocks. The JJM (“Joint Jack Mackerel Model”) is implemented in AD Model Builder (ADMB) and considers different types of information, which correspond to the available data on the jack mackerel fishery in the South Pacific area from 1970 to 2021 (Table A10.18).
41. The JJM model is an explicitly age-structured model that uses a forward projection approach and maximum likelihood estimation to solve for model parameters. The operational population dynamics model is defined by the standard catch equation with various modifications such as those described by Fournier & Archibald (1982), Hilborn & Walters (1992) and Schnute & Richards (1995). This model was adopted as the assessment method in 2010 after several technical meetings.

JJM Developments

42. Since its adoption, the JJM model has been improved by participating scientists. The most notable changes have been options to include length composition data (and specifying or estimating growth) and the capability to estimate natural mortality by age and time (although this capability is not used). The model is flexible and permits the use of catch information either at age or size for any fleet, and explicitly incorporates regime shifts in population productivity.
43. The model consists of several components, (i) the dynamics of the stock; (ii) the fishery dynamics; (iii) observation models for the data; and (iv) the procedure used for parameter estimation (including uncertainties).

44. A JM modelling workshop was held from 7/8 – 9/10 June 2022, attended by 33 people, with the aim of building capacity for utilization of the existing JIM model but also identifying several ways in which it could be improved to enhance transparency and ease of use. These ideas were subsequently fed into the JM Benchmark Workshop in July (SCW14).
45. Stock dynamics: recruitment is assumed to occur in January while the spawning season is assumed to be an instantaneous process occurring in mid-November. The population's age composition considers individuals from 1 to 12+ years old. In all cases a stochastic Beverton-Holt relationship (Beverton & Holt 1957) between stock and recruitment is included. Each cohort survives an age-specific mortality composed of fishing mortalities at-age by fleet and natural mortality (assumed to be constant over time and age). The model is not spatially-explicit, although the fisheries operate in geographically distinct areas. The initial population is based on an equilibrium condition and occurs in 1958 (12 years prior to the model start in 1970).
46. Fishery dynamics: The interaction of the fisheries with the population occurs through fishing mortality. Fishing mortality is assumed to be a composite of several processes – selectivity (by fleet), which describes the age-specific pattern of fishing mortality; catchability, which scales fishing effort to fishing mortality; and effort deviations, which are a random effect in the fishing effort – fishing mortality relationship. The selectivity pattern is non-parametric and assumed to be fishery-specific and time-variant. Catchability is specific to each of the seven abundance indices. The model includes temporal variation in both fishery and index selectivity patterns at the annual and regime scales, depending on the index and the stock structure hypothesis. More detail is included in the subsequent section.
47. Observation models for the data: There are four data components that contribute to the log-likelihood function: the total catch data, the age-frequency data, the length-frequency data and the abundance indices.
48. The probability distributions for the age and length-frequency proportions are assumed to be approximated by multinomial distributions. Sample size is specified to be gear-specific but mostly constant over years. For the total catch by fishery (4) and the abundance indices (7), a log-normal assumption has been assumed with constant CV; the CV for the fisheries being 0.05 whereas the CV for the abundance indices depends on the index. Beginning in 2018, as discussed in SC4 and agreed upon in SCW6, the Francis T1.8 weighting method (Francis 2011) is used to assign weighted sample sizes for age-frequency data. The data weights have been updated during the JM 2022 benchmark (SCW14).
49. Parameter estimation: The model parameters are estimated by maximising the log-likelihoods of the data plus the log of the probability density functions of the priors and smoothing penalties specified in the model. Estimation was conducted in a series of phases, the first of which used arbitrary starting values for most parameters. The model has been implemented and compiled in ADMB and its characteristics can be consulted in Fournier et al. (2012).

Model Details

50. Parameters estimated conditionally are listed in Table A10.19. The most numerous of these involve estimates of annual and age-specific components of fishing mortality for each year and for each of the four fisheries identified in the model. Parameters describing population numbers at age 1 in each year (and years prior to 1970 to estimate the initial population numbers at ages 1-12+) were the second most numerous type of parameter.
51. Equations and specifications for the assessment model are given in Table A10.20 and Table A10.21. Table A10.22 contains the initial variance assumptions for the indices and the age and length compositions.
52. The treatment of selectivity patterns and how they are shared among fisheries and indices are given in Table A10.23 and Table A10.24 for the two stocks under the two-stock model configurations

(hypothesis 2), and Table A10.25 for the single-stock hypothesis (hypothesis 1). Selectivity for the Far North fleet was specified with a regime shift in 2002 under the two-stock hypothesis, while annual variations beginning in 1981 were specified for the same fleet under the single-stock hypothesis. Depending on the model configuration, some growth functions were employed inside the model to convert model-predicted age compositions to length compositions, in order to fit the model to the length composition data.

53. Equilibrium-based reference points are calculated within the jjm model. The model estimates values of MSY and F_{MSY} using a Newton-Raphson minimization routine that finds the value of fishing mortality, given the terminal year relative catches (and selectivities-at-age) by fleet, and the terminal year weights-at-ages for each fleet, that maximizes catch. Since weights-at-age and “effective” selectivity change each year, these values can vary. MSY is thus defined as the maximum amount of catch that allows the remaining stock to generate sufficient recruitment to maintain the population at the same level. B_{MSY} is taken as the long-term average of biomass fished under MSY . Between 2013 and 2021, a provisional B_{MSY} level of 5.5 million tons was applied. In SCW14, the interim management reference point for B_{MSY} was revised to a ten-year average of the model-estimated B_{MSY} . A limit reference point B_{lim} (where B refers to spawning biomass) for the single-stock hypothesis was also developed during SCW14. B_{lim} was defined as the spawning biomass level below which recruitment would likely be impaired. As such, there should be no fishing when the current spawning biomass is estimated to be below B_{lim} . For jack mackerel, B_{lim} was computed from the lowest ratio of historical spawning biomass relative to the most-recently-estimated unfished spawning biomass. In SCW14, this ratio was estimated to be 8% of the unfished spawning biomass.

Models for Stock Structure Hypothesis

54. During SWG 11, two types of population structure were evaluated, and this was continued for subsequent evaluations. Beginning in 2020 (SC8), models under the one-stock hypothesis carry “h1” in front of the model number, models under the two-stock hypotheses carry “h2” in front of the model number.

Description of Model Explorations

55. As SC10 was an update assessment, after the benchmark of SCW14, the main model explorations involved incrementally adding new data components relative to the model and data adopted from SCW14. These are labelled “h1_0.x” and “h2_0.x. where $h1$ and $h2$ represent the stock structure hypothesis and x represents the number when a component was added (Table A10.26).
56. The rationale for the main updates and data revisions occurring through model configurations 0.00 to 0.10 has been explained in the “Data used in the assessment” section, earlier in this Annex.
57. Thereafter, Model 0.10 was renamed as Model 1.00. with an updated control file to reflect changes in selectivity for the current year, as was done in previous years.
58. During SC10, attention was brought to an analysis in the Peruvian National Report (SC10-Doc27). The analysis noted a mistake in the assessment, where growth parameters reflecting fish Total Length were applied to Fork Length data. The model was thus updated to correct the growth parameters ($L_{\infty}=73.56$; $L_0=13.56$; SC10-Doc27) in Model 1.01.
59. In the most recent years of the fishery, there has been a notable northward shift in the distribution of fishing effort by the offshore fleet. This geographical shift has been associated with catches of smaller and younger fish. As a result, the model fit to the age composition data in these terminal years was poor. To address this, a second sensitivity was developed (Model 1.02). Age composition data in the terminal year has traditionally been down-weighted to reflect uncertainty in those data points. To better fit to the offshore data in the final year, the sample size was increased to be the same as that of earlier years. It should be noted that the overall weight of the offshore age composition data is quite

low relative to other data sources. In addition, more flexibility was added to the selectivity of the offshore fleet in 2022.

60. The final model used the Francis weights agreed upon by SCW14 for the multinomial age composition sample sizes, and these weights were not updated in this assessment. Also, the model took a precautionary approach to assessment and advice. It assumed low steepness ($h=0.65$) and used the most recent recruitment time-series (2001-2015), similar to assessments prior to SC5. Recruitment used in the forecast was taken directly from the assessment.
61. Beginning in SC9, efforts have been made to increase the reproducibility and transparency of the assessment process. A centralised repository for data submissions was created on [Teams](#) to facilitate ease of access. R scripts were developed to document the assessment update process. These scripts included code to 1) read in, analyse, and raise catch at age/length data, 2) incrementally update data files for the bridging exercise from the previous year's assessment to the new assessment, 3) update model files for model sensitivity runs, 4) conduct projections with the final model, and 5) create an HTML document for result presentation. Scripts for processing the data (1) are found in the [jimData repository](#), whereas the assessment scripts can be found on the [jim repository](#), in the assessment folder.

4. Results

62. Results from incrementally updating the data (Models 0.00 to 0.10) indicated a slight increase in biomass for recent years, with the largest change driven by the update to Peruvian CPUE data. Correcting the growth parameters (Model 1.01) had negligible impacts on the stock status. Similarly, adding flexibility to selectivity estimates in the offshore fleet (Model 1.02) improved fits to recent age composition data, but had negligible impact on stock status. Overall, the stock (or stocks; depending on the stock structure hypothesis used) shows continued increasing trends in biomass, similar to previous years.
63. An analytical retrospective analysis involves running the model multiple times, each time removing the final year of data (for five years). The retrospective analysis shows that Model h1_1.02 tended to slightly under-estimate SSB, with a Mohn's rho of -0.13 (Figure A10.3). Recruitment tended to be under-estimated, with a Mohn's rho of -0.34 (Figure A10.4). The negative bias in recruitment is likely due to the fact that recruitment in recent years has been very high, and estimated recruitment in the final year reverts to a mean. Model h2_1.02 had a slight tendency to over-estimate SSB (Mohn's rho of 0.12 (south) and 0.21 (north); Figure A10.5) and under-estimate recruitment for the south (Mohn's rho of -0.11) and over-estimate the same for the north (Mohn's rho of 0.24; Figure A10.6).
64. An alternative to the analytical retrospective analysis, which is based on the current model formulation, the "historical retrospective analysis" instead compares quantities derived from assessments previously adopted by the SC. This indicates the year-to-year changes in estimates of stock trends and reference points. This analysis was only conducted on Model h1_1.02 (raw values for biomass found in Table A10.27; graphically visualised in Figure A10.7 and Figure A10.8). The results indicate that the current model formulation has a higher estimate of biomass relative to estimates from previous years. This was likely due to the revision in Chilean age data. Estimates of fishing mortality in recent years remain similar to those from previous SCs, although the current model estimates fishing mortality to be higher for historical years. Recruitment estimates appear mostly in line with those of previous models, with peaks in recruitment shifting by approximately two years. Overall, the trends appear consistent over time. Another interesting comparison to make is that of the management reference points (biomass (B) at maximum sustainable yield (MSY) and fishing mortality (F) at MSY; B_{MSY} and F_{MSY} respectively) estimated over the years. The updates to the age data in 2022, and subsequently the biological parameters, likely resulted in large changes to the reference points, B_{MSY} in particular (Figure A10.8). Despite that, it is to be noted that stock status relative to those changed reference points remained largely the same for

recent years. Also, the stock has consistently been estimated as rebuilt since 2018, and not subject to overfishing since 2013, relative to the dynamically-estimated MSY reference points.

65. Fishery mean weights-at-age assumed for all models are shown in Figure A10.9, and those for the surveys are shown in Figure A10.10. Estimates of numbers-at-age from Model h1_1.02 are given in Table A10.28, and Model h2_1.02 results are in Table A10.29 (southern stock) and Table A10.30 (northern stock). Both models show similar good fits to the composition data (Figure A10.11, Figure A10.12, Figure A10.13, Figure A10.14, Figure A10.15, Figure A10.16, Figure A10.17, and Figure A10.18). The fits to age composition data from the surveys are given in Figure A10.19, Figure A10.20, Figure A10.21, Figure A10.22, Figure A10.23, and Figure A10.24. Models h1_1.02 and h2_1.02 fit the indices similarly (Figure A10.25 (h1), Figure A10.26 (h2 south), and Figure A10.27 (h2 north)); they both fit well to the Chilean CPUE data and poorly to recent years of the offshore and Peruvian CPUE data, although the relative abundance estimates remained within the uncertainty bounds of the data. Whereas the models predicted higher relative abundance than was shown in the offshore CPUE data, they predicted lower relative abundance than was shown in the Peruvian CPUE data. Estimates of fishery mean age compositions are shown in Figure A10.28 (h1_1.02) and Figure A10.29 (h2_1.02), and survey mean age compositions are shown in Figure A10.30 (h1_1.02) and Figure A10.31 (h2_1.02). Both models fit poorly to data from the Central-South Chilean acoustic survey. Both models seem to estimate mean length composition data for the Far North fleet relatively poorly in recent years, as shown in Figure A10.32 and Figure A10.33. Selectivity estimates for the fishery and indices are shown over time in Figure A10.34, Figure A10.35, Figure A10.36, and Figure A10.37.
66. For SC10, B_{MSY} was estimated to be approximately 7.8 million t under the single-stock hypothesis (h1_1.02), and 7.0 and 0.96 million t for the south and far north stocks respectively under the two-stock hypothesis (h2_1.02). B_{lim} was estimated to be approximately 1.24 million t, or 8% of the unfished spawning biomass, during SC10. More details on this reference point and the associated harvest control rule can be found in the SCW14 [report](#).
67. A summary of the time series stock status (spawning biomass, F , recruitment, total biomass) for the single-stock hypothesis (h1_1.02) is shown in Figure A10.38. It is noted that the biomass has been steadily increasing over the last decade, and is now above the B_{MSY} management reference point. For the jack mackerel stock, with the current level at around 54% of what is estimated to have occurred had there been no fishing (Figure A10.41).
68. Under the 2-stock hypothesis (h2_1.02), conditions of the jack mackerel stock in its entire distribution range in the southeast Pacific shows a continued recovery since the time-series low in 2010. It is noted that under the two-stock model, the southern unit shows an increasing trend in biomass over the last decade (Figure A10.39), while the northern unit only shows an increase in biomass beginning in the middle of the last decade (Figure A10.40). The southern unit showed similar results to that of the single-stock hypothesis, although SSB was estimated slightly higher under the former scenario. Estimates of exploitation rate for the northern stock were comparable to recent years, remaining at relatively low levels (Figure A10.40). Figure A10.42 and Figure A10.43 show the current total biomass to be approximately 55% and 61% of unfished total biomass for the southern and the far north stocks respectively.
69. Fishing mortality rates at age (combined fleets) were high starting in about 1992 across the entire jack mackerel population, but have declined in the past years, regardless of stock structure hypothesis or designation (Table A10.31, Table A10.32, Table A10.33, Figure A10.38, Figure A10.39, and Figure A10.40). It should be noted that the low probability of B_{2032} being greater than B_{MSY} under the F_{MSY} projection for model h1_1.05 is likely due to B_{MSY} being set at the interim level, and not the model-estimated B_{MSY} . Within the period 2001-2015, the level of expected recruitment was lower than the alternatives although recruitment has increased in recent years to about the long-term average mean. The aforementioned period was used for projections but Model 1.02 uses the period 2001 to 2019 to

fit the stock recruitment curve for the southern/single stock. Time series of quantities derived by Model h1_1.02 are presented in Table A10.34, whereas those of Model h2_1.02 are in Table A10.35 (southern stock) and Table A10.36 (far north stock). Short, medium and long-term predictions for the stock(s) under different fishing mortalities are found under Table A10.37 (h1_1.02) and Table A10.38 (h2_1.02).

5. Management Advice

70. New data and indicators on the status of the jack mackerel stock suggest that conditions evaluated in detail from the last benchmark assessment (completed in 2022) are relatively unchanged. The population trend is estimated to be increasing. The indications of stock improvement (higher abundance observed in the acoustic survey in the northern part of Chile, better catch rates apparent in all fisheries for which data are available, and increase in average age in the Chilean fisheries) drive the increase.
71. Historical fishing mortality rates and patterns relative to the provisional biomass target are shown in Figure A10.38 for Model h1_1.02. Near-term spawning biomass is expected to increase from 14.3 million t in 2022 to 15.5 million t in 2023 (with approximate 90% confidence bounds of 12.0 – 20.1 million t). Under the two-stock hypothesis, historical fishing mortality rates and patterns relative to the biomass targets estimated by Model h2_1.02 are shown in Figure A10.39 and Figure A10.40. Near-term spawning biomass is expected to increase from the 2022 estimate of 12.7 million t to 13.8 million t in 2023 for the southern stock (with approximate 90% confidence bounds of 10.0 – 19.2 million t), and decrease from 1.5 million t to 1.4 million t for the far north stock (with approximate 90% confidence bounds of .98 – 2.1 million t).
72. Recent increases in the model-calculated B_{MSY} values (which is different from the constant B_{MSY}) that are likely due to changes in selectivity of all fisheries combined, would imply an estimate of SSB at well over 50% over B_{MSY} for both the single-stock and the two-stock hypotheses.
73. Given current stock status, the fourth tier of the jack mackerel rebuilding plan (as defined in the SCW14 report) should be applied. This means that F_{MSY} would be used as the basis for catch advice. However, this would result in a potential increase of over three times of last year's recommended catch. In line with the "adjusted Annex K" rebuilding plan (SC2), catch advice relative to the previous year can only increase by a maximum of 15%. This results in advice of a 2023 catch level for jack mackerel within the entire jack mackerel range to be at or below 1,035,000t.
74. Projections show a high likelihood of the biomass being above B_{MSY} in 2024 even under the most conservative recruitment productivity scenario evaluated (h1_1.02.ls and h2_1.02.ls; Table A10.37 and Table A10.38). A re-evaluation of the rebuilding plan is recommended to analyse sustainable exploitation rates of the re-built jack mackerel stock.

6. Assessment Issues

75. Based on results from the 2022 benchmark workshop, assessment plans for the next benchmark should be developed several months prior so that data coordinators can configure alternatives and conduct a careful evaluation of all available information to best guide the Commission. One of the higher priority items for consideration continues to be the catch-at-age estimates (based on age-determinations being conducted from different labs) and mean body weights at age assumed in the model. Another priority for consideration is the development of guidelines for standardisation of CPUE indices and the collection of relevant data. In particular, evaluations of efficiency improvements for the Peruvian and Chilean fishing fleets were noted. Results of the data weighting and the retrospective pattern analysis also warrant further investigation.
76. The issue of evaluating sensitivities to the early fishery age composition data was raised. The SC noted that this might be a fruitful avenue for investigation in subsequent assessments, particularly since these

data (pre-1990) are less well-documented. Residual patterns in the age composition for the North Chilean fleet remain unresolved, and warrant further investigation as well.

77. The need for a closer evaluation comparing the performance of the model under the single-stock and two-stock hypotheses was noted, likely conducted using simulation and MSE.

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8. Tables

Table A10.1. Sources and values of catch (t) compiled for the four fleets used for the assessment (note that data for 2021 are not official figures, and 2022 are predictions).

Assigned Fleet	Fleet 1	Fleet 2	Fleet 3 (Far North)						Fleet 4 (Offshore Trawl)											Grand Total	
Year	N Chile	Chile CS	Cook Islands	Cuba	Ecuador (ANJ)	Peru (ANJ)	USSR	Subtotal	Belize	China	Cuba	European Union	Faroe Islands	Japan	Korea	Peru	Russia / USSR	Ukraine	Vanuatu	Subtotal	
1970	101 685	10 309				4 711		4 711												0	116 705
1971	143 454	14 988				9 189		9 189												0	167 631
1972	64 457	22 546				18 782		18 782									5 500			5 500	111 285
1973	83 204	38 391				42 781		42 781												0	164 376
1974	164 762	28 750				129 211		129 211												0	322 723
1975	207 327	53 878				37 899		37 899												0	299 104
1976	257 698	84 571				54 154		54 154						35						35	396 458
1977	226 234	114 572				504 992		504 992						2 273						2 273	848 071
1978	398 414	188 267				386 793	0	386 793						1 667	403		49 220			51 290	1 024 764
1979	344 051	253 460		6 281		151 591	175 938	333 810			12 719	1 180		120			356 271			370 290	1 301 611
1980	288 809	273 453		38 841		123 380	252 078	414 299			45 130	1 780					292 892			339 802	1 316 363
1981	474 817	586 092		35 783		37 875	371 981	445 638			38 444			29			399 649			438 123	1 944 670
1982	789 912	704 771		9 589		50 013	84 122	143 724			74 292	7 136					651 776			733 204	2 371 611
1983	301 934	563 338		2 096		76 825	31 769	110 690			52 779	39 943		1 694			799 884			894 300	1 870 262
1984	727 000	699 301		560		184 333	15 781	200 674			33 448	80 129		3 871			942 479			1 059 927	2 686 902
1985	511 150	945 839		1 067		87 466	26 089	114 622			31 191			5 229			762 903			799 323	2 370 934
1986	55 210	1 129 107		66		49 863	1 100	51 029			46 767			6 835			783 900			837 502	2 072 848
1987	313 310	1 456 727		0		46 304	0	46 304			35 980			8 815			818 628			863 423	2 679 764
1988	325 462	1 812 793		5 676		118 076	120 476	244 229			38 533			6 871			817 812			863 215	3 245 699
1989	338 600	2 051 517		3 386	0	140 720	137 033	281 139			21 100			701			854 020			875 821	3 547 077
1990	323 089	2 148 786		6 904	4 144	191 139	168 636	370 823			34 293			157			837 609			872 059	3 714 757
1991	346 245	2 674 267		1 703	45 313	136 337	30 094	213 447			29 125						514 534			543 659	3 777 618
1992	304 243	2 907 817		0	15 022	96 660	0	111 682			3 196						32 000	2 736		37 932	3 361 674
1993	379 467	2 856 777			2 673	130 681		133 354												0	3 369 598
1994	222 254	3 819 193			36 575	196 771		233 346												0	4 274 793
1995	230 177	4 174 016			174 393	376 600		550 993												0	4 955 186
1996	278 439	3 604 887			56 782	438 736		495 518												0	4 378 844
1997	104 198	2 812 866			30 302	649 751		680 053												0	3 597 117
1998	30 273	1 582 639			25 900	386 946		412 846												0	2 025 758
1999	55 654	1 164 035			19 072	184 679		203 751						7						7	1 423 447
2000	118 734	1 115 565			7 122	296 579		303 701		2 318										2 318	1 540 318
2001	248 097	1 401 836			133 969	723 733		857 702		20 090										20 090	2 527 725
2002	108 727	1 410 266			604	154 219		154 823		76 261										76 261	1 750 077
2003	143 277	1 278 019			0	217 734		217 734		94 690					2 010		7 540		53 959	158 199	1 797 229
2004	158 656	1 292 943			0	187 369		187 369		131 020					7 438		62 300		94 685	295 443	1 934 411
2005	165 626	1 264 808			0	80 663		80 663	867	143 000		6 187			9 126		7 040		77 356	243 576	1 754 673
2006	155 256	1 224 685			0	277 568		277 568	481	160 000		62 137			10 474		0		129 535	362 627	2 020 136
2007	172 701	1 130 083	7		927	254 426		255 360	12 585	140 582		123 523	38 700		10 940		0		112 501	438 831	1 996 975
2008	167 258	728 850	0		0	169 537		169 537	15 245	143 182		108 174	22 919		12 600		4 800		100 066	406 986	1 472 631
2009	134 022	700 905	0		1 934	74 694		76 628	5 681	117 963		111 921	20 213	0	13 759	13 326	9 113		79 942	371 918	1 283 473
2010	169 012	295 796	0		4 613	17 559		22 172	2 240	63 606		67 497	11 643	0	8 183	40 516			45 908	239 593	726 573
2011	30 825	216 470	0		69 373	257 240		326 613	0	32 862	8	2 248	0	0	9 253	674	8 229		7 617	60 891	634 799
2012	13 256	214 204	0		77	187 292		187 369		13 012	0	0	0	0	5 492	5 346	0		16 068	39 917	454 746
2013	16361	214999	0		3563	79441		83004		8329		10101	0		5267	2670			14809	41175	355539
2014	18219	254295	0		9	79191		79200		21155		20539	0		4078	2557			15324	63652	415366
2015	34886	250327			289	23036		23325		29180		27955	0		5749	0	2561		21227	86672	395210
2016	24657	295160			0	15121		15121		20208		11962	0		6430	0	0		15563	54163	389101
2017	35002	311863			54	10094		10148		16802		27887	0		1235	0	3188		0	49113	406126
2018	11551	415149			23	58356		58379		24366		9691	0		3717	0	4685		0	42460	527539
2019	11875	432447			0	139811		139811		22699		11870	0		7444	0	9423		0	51436	635569
2020	44155	517665			0	158880		158880		0		0	0		0	0	5245		0	5245	725945
2021	61359	567267			8	123628		123636				43111					12193			55304	807566
2022	83000	601000			8	180069		180077				45095					19680			64775	928852

Table A10.2. Input catch (kilo tonnes) by fleet (combined) for the stock assessment model. Note that the final year's data are predictions.

Year	Fleet 1	Fleet 2	Fleet 3	Fleet 4
1970	101.69	10.31	4.71	1
1971	143.45	14.99	9.19	1
1972	64.46	22.55	18.78	5.5
1973	83.2	38.39	42.78	1
1974	164.76	28.75	129.21	1
1975	207.33	53.88	37.9	1
1976	257.7	84.57	54.15	1.04
1977	226.23	114.57	504.99	2.27
1978	398.41	188.27	386.79	51.29
1979	344.05	253.46	333.81	370.29
1980	288.81	273.45	414.3	339.8
1981	474.82	586.09	445.64	438.12
1982	789.91	704.77	143.72	733.2
1983	301.93	563.34	110.69	894.3
1984	727	699.3	200.67	1059.93
1985	511.15	945.84	114.62	799.32
1986	55.21	1129.11	51.03	837.5
1987	313.31	1456.73	46.3	863.42
1988	325.46	1812.79	244.23	863.22
1989	338.6	2051.52	316.25	875.82
1990	323.09	2148.79	370.82	872.06
1991	346.25	2674.27	213.45	543.66
1992	304.24	2907.82	111.68	37.93
1993	379.47	2856.78	133.35	1
1994	222.25	3819.19	233.35	1
1995	230.18	4174.02	550.99	1
1996	278.44	3604.89	495.52	1
1997	104.2	2812.87	680.05	1
1998	30.27	1582.64	412.85	1
1999	55.65	1164.04	203.75	1.01
2000	118.73	1115.57	303.7	2.32
2001	248.1	1401.84	857.74	20.09
2002	108.73	1410.27	154.82	76.26
2003	143.28	1278.02	217.73	158.2
2004	158.66	1292.94	187.37	295.44
2005	165.63	1264.81	80.66	243.58
2006	155.26	1224.69	277.57	362.63
2007	172.7	1130.08	255.36	438.83
2008	167.26	728.85	169.54	406.99
2009	134.02	700.9	76.63	371.92
2010	169.01	295.8	22.17	239.59
2011	30.82	216.47	326.39	60.89
2012	13.26	214.2	187.4	39.92
2013	16.36	215	80.59	41.18
2014	18.22	254.29	74.53	63.65
2015	34.89	250.33	22.45	86.67
2016	24.66	295.16	15.09	54.16
2017	35	311.86	8.87	49.11
2018	11.55	415.15	57.16	42.46
2019	11.88	432.45	135.78	51.44
2020	44.16	517.66	140.12	4.74
2021	61.36	567.27	123.64	55.3
2022	83	601	180.08	64.78

Table A10.3. Catch at age for Fleet 1. Units are relative value (they are normalised to sum to 100 for each year in the model).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1980	0	5	14	24	31	22	4	0	0	0	0	0
1981	1	7	13	21	33	19	5	1	0	0	0	0
1982	0	15	15	21	26	16	6	1	0	0	0	0
1983	1	9	17	27	28	15	3	0	0	0	0	0
1984	2	34	12	14	18	16	4	0	0	0	0	0
1985	1	18	26	30	18	5	1	0	0	0	0	0
1986	8	11	9	18	32	18	5	0	0	0	0	0
1987	15	68	11	3	2	1	0	0	0	0	0	0
1988	1	17	54	26	2	0	0	0	0	0	0	0
1989	0	9	42	39	8	1	0	0	0	0	0	0
1990	9	3	28	49	10	1	0	0	0	0	0	0
1991	11	33	8	18	24	6	1	0	0	0	0	0
1992	11	30	21	21	12	5	1	0	0	0	0	0
1993	15	72	8	4	1	0	0	0	0	0	0	0
1994	27	32	25	13	2	1	0	0	0	0	0	0
1995	5	69	18	6	2	0	0	0	0	0	0	0
1996	29	57	11	3	0	0	0	0	0	0	0	0
1997	36	60	3	0	0	0	0	0	0	0	0	0
1998	8	79	11	3	0	0	0	0	0	0	0	0
1999	9	84	5	2	0	0	0	0	0	0	0	0
2000	36	47	16	1	0	0	0	0	0	0	0	0
2001	51	48	1	0	0	0	0	0	0	0	0	0
2002	21	58	17	3	1	0	0	0	0	0	0	0
2003	21	72	4	2	1	0	0	0	0	0	0	0
2004	13	63	23	1	0	0	0	0	0	0	0	0
2005	40	44	11	4	1	0	0	0	0	0	0	0
2006	8	83	6	2	1	0	0	0	0	0	0	0
2007	12	69	13	3	2	0	0	0	0	0	0	0
2008	56	27	9	7	1	0	0	0	0	0	0	0
2009	20	68	4	8	0	0	0	0	0	0	0	0
2010	9	74	13	3	1	0	0	0	0	0	0	0
2011	77	20	2	1	0	0	0	0	0	0	0	0
2012	34	58	7	0	0	0	0	0	0	0	0	0
2013	31	66	1	1	1	0	0	0	0	0	0	0
2014	59	40	2	0	0	0	0	0	0	0	0	0
2015	14	60	15	6	4	1	0	0	0	0	0	0
2016	10	20	13	19	19	7	10	1	0	0	0	0
2017	31	61	6	1	1	0	0	0	0	0	0	0
2018	100	0	0	0	0	0	0	0	0	0	0	0
2019	20	19	9	14	13	6	7	4	3	3	1	2
2020	0	27	25	23	15	8	2	0	0	0	0	0
2021	18	3	4	14	22	18	12	7	3	1	1	0
2022	0	0	0	3	26	32	30	7	2	1	0	0

Table A10.4. Catch at age for fleet 2. Units are relative value (they are normalised to sum to 100 in the model).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1980	2	23	40	26	8	1	0	0	0	0	0	0
1981	2	20	32	31	12	3	0	0	0	0	0	0
1982	2	27	37	25	8	1	0	0	0	0	0	0
1983	15	28	24	20	11	2	0	0	0	0	0	0
1984	7	50	8	14	12	6	2	0	0	0	0	0
1985	3	27	26	20	17	7	2	0	0	0	0	0
1986	4	11	24	27	21	12	2	0	0	0	0	0
1987	8	46	7	10	17	10	2	0	0	0	0	0
1988	12	38	29	7	8	6	1	0	0	0	0	0
1989	1	12	42	30	9	5	2	0	0	0	0	0
1990	0	1	6	26	33	18	12	3	0	0	0	0
1991	1	3	0	6	27	29	18	10	4	1	0	0
1992	1	7	6	6	8	21	22	16	9	4	0	0
1993	1	16	17	14	12	10	14	12	4	1	0	0
1994	0	6	17	18	13	11	17	13	4	1	0	0
1995	1	19	17	22	20	8	7	4	1	0	0	0
1996	4	22	19	17	15	10	6	3	1	0	0	0
1997	8	42	21	10	6	5	5	2	1	1	0	0
1998	9	58	14	6	3	3	4	2	1	0	0	0
1999	20	52	15	6	2	1	1	1	1	0	0	0
2000	10	49	24	10	3	1	1	1	1	0	0	0
2001	6	41	28	12	4	2	2	2	1	1	1	0
2002	7	34	23	16	6	4	3	2	2	2	1	0
2003	4	31	28	21	8	3	2	2	1	1	0	0
2004	2	22	29	26	11	5	3	2	1	0	0	0
2005	2	8	20	33	19	9	5	2	1	1	0	0
2006	1	6	9	20	25	14	11	7	3	2	1	1
2007	0	13	17	11	15	15	12	9	4	2	1	1
2008	3	1	6	22	20	16	11	9	5	3	2	2
2009	2	15	2	19	21	16	10	7	4	2	1	1
2010	1	32	20	10	11	6	9	6	2	1	1	0
2011	2	11	14	36	11	8	13	2	1	0	0	0
2012	0	8	25	27	29	7	3	1	0	0	0	0
2013	2	18	31	33	14	2	0	0	0	0	0	0
2014	1	13	24	26	21	12	3	1	0	0	0	0
2015	10	45	14	10	10	7	3	1	0	0	0	0
2016	0	23	26	22	14	8	4	2	1	0	0	0
2017	3	21	16	16	16	11	7	4	3	1	0	1
2018	2	18	24	20	17	9	5	3	1	1	1	0
2019	0	9	17	22	24	14	8	4	1	0	0	0
2020	0	9	10	15	22	20	14	8	3	0	1	0
2021	0	4	15	18	24	18	11	6	2	1	0	0
2022	0	1	6	26	37	21	7	2	0	0	0	0

Table A10.5. Catch at age for Fleet 4. Units are relative value (they are normalised to sum to 100 for each year in the model).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
2015	17	26	10	7	11	11	8	5	3	1	1	0
2016	6	14	17	25	22	7	3	2	1	1	0	0
2017	65	14	12	5	2	1	1	0	0	0	0	0
2018	15	21	7	12	18	15	8	3	1	0	0	0
2019	19	32	8	8	8	8	8	6	2	0	1	0
2020	14	53	24	4	1	1	1	0	0	0	0	0
2021	6	21	50	13	7	2	0	0	0	0	0	0
2022	14	79	3	2	1	0	0	0	0	0	0	0

Table A10.7. Abundance indices used within the assessment model.

Year	Chile (1)	Chile (2)	Chile (3)	Chile (4)	Peru(2)	Peru(3)	Offshore
1970	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-
1983	-	-	0.837	-	-	-	-
1984	-	99	0.77	-	-	-	-
1985	-	324	0.673	-	94.316	-	-
1986	-	123	0.567	-	108.116	-	-
1987	-	213	0.666	-	109.789	-	-
1988	-	134	0.585	-	114.18	-	-
1989	-	-	0.569	-	157.394	-	-
1990	-	-	0.487	-	229.757	-	-
1991	-	242	0.537	-	231.672	-	-
1992	-	-	0.492	-	180.355	-	-
1993	-	-	0.441	-	145.726	-	-
1994	-	-	0.473	-	95.245	-	-
1995	-	-	0.423	-	54.257	-	-
1996	-	-	0.418	-	29.967	-	-
1997	3530	-	0.343	-	31.664	-	-
1998	3200	-	0.291	-	43.994	-	-
1999	4100	-	0.296	5724	52.681	-	-
2000	5600	-	0.286	4688	105.784	-	-
2001	5950	-	0.341	5627	131.586	-	-
2002	3700	-	0.295	-	96.661	4.066	-
2003	2640	-	0.26	1388	67.471	4.754	-
2004	2640	-	0.281	3287	51.853	5.184	-
2005	4110	-	0.255	1043	75.171	4.069	-
2006	3192	112	0.276	3283	111.259	5.357	-
2007	3140	275	0.207	626	79.75	7.43	-
2008	487	259	0.136	1935	24.251	3.77	1683.82
2009	328	18	0.113	-	-	1.338	1171.55
2010	-	440	0.087	-	7.247	2.487	823.909
2011	-	432	0.048	-	35.283	6.324	733.503
2012	-	230	0.147	-	50.332	5.52	622.273
2013	-	144	0.129	-	64.504	2.439	707.994
2014	-	87	0.102	-	-	3.318	741.39
2015	-	459	0.083	-	-	2.649	1009.29
2016	-	587.244	0.15	-	-	2.276	728.148
2017	-	610.47	0.178	-	-	2.919	935.778
2018	-	374.11	0.179	-	-	8.17	800.295
2019	-	1487.07	0.197	-	-	13.703	972.161
2020	-	1728.27	0.258	-	-	14.988	-
2021	-	1870.36	0.271	-	-	18.067	1555.91
2022	-	-	0.323	-	-	20.371	-

Legend:

Chile (1): Acoustics for south-central zone in Chile

Chile (2): Acoustics for northern zone in Chile

Chile (3): Chilean south-central fishery CPUE for Fleet 1

Chile (4): Daily Egg Production Method

Peru(1): Peruvian acoustic index in Fleet 3

Peru(2): Peruvian fishery CPUE in Fleet 3

Offshore: Combined CPUE for China, EU, South Korea, Russia, and Vanuatu in Fleet 4

Table A10.8. Catch at age for acoustic surveys in southern Chile. Units are relative value (they are normalised to sum to 100 for each year in the model).

Age group (years)												
Year	1	2	3	4	5	6	7	8	9	10	11	12
2001	1	56	10	17	6	4	2	1	1	1	0	0
2002	2	45	27	13	5	5	2	1	0	0	0	0
2003	1	29	32	22	7	4	2	1	1	1	0	0
2004	1	13	19	25	17	10	9	4	1	0	0	0
2005	1	12	20	41	16	5	2	1	1	0	0	0
2006	0	0	13	34	32	8	6	4	2	1	0	0
2007	0	0	2	14	19	21	18	13	8	2	2	1
2008	0	0	0	12	33	25	13	9	4	2	1	2
2009	0	0	0	0	1	30	24	16	17	6	3	3

Table A10.9. Catch at age for acoustic surveys in northern Chile. Units are relative value (they are normalised to sum to 100 for each year in the model).

Age group (years)												
Year	1	2	3	4	5	6	7	8	9	10	11	12
2006	30	69	1	0	0	0	0	0	0	0	0	0
2007	8	60	23	8	2	0	0	0	0	0	0	0
2009	68	31	1	0	0	0	0	0	0	0	0	0
2013	45	13	21	15	5	1	0	0	0	0	0	0
2014	95	2	0	1	1	0	0	0	0	0	0	0
2015	72	21	4	2	1	0	0	0	0	0	0	0
2016	73	19	4	2	1	0	0	0	0	0	0	0
2017	66	23	8	2	1	0	0	0	0	0	0	0
2018	92	6	1	0	0	0	0	0	0	0	0	0
2019	16	59	20	4	1	0	0	0	0	0	0	0
2020	23	8	25	31	11	2	0	0	0	0	0	0
2021	62	5	13	12	6	2	0	0	0	0	0	0

Table A10.10. Catch at age for DEPM surveys in the southern area of Chile. Units are relative value (they are normalised to sum to one for each year in the model). Green shading reflects relative level with a darker green indicating a stronger cohort.

Age group (years)												
Year	1	2	3	4	5	6	7	8	9	10	11	12
2001	0	15	36	37	6	3	2	2	1	0	0	0
2003	0	2	15	24	10	16	11	12	6	2	1	0
2004	0	2	15	35	19	9	5	7	5	2	1	0
2005	0	0	0	1	38	24	16	11	5	3	2	0
2006	0	0	0	4	20	31	24	14	5	2	1	0
2008	0	0	0	4	12	22	27	20	9	5	0	0

Table A10.11. Jack mackerel sexual maturity by age used in the JJM models.

Age (yr)	1	2	3	4	5	6	7	8	9	10	11	12
Single / Southern Stock	0.520	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Far North Stock	0.000	0.370	0.980	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table A10.12. Jack mackerel growth (von Bertalanffy) and natural mortality parameters used in JJM models.

Parameter	Far North stock	Single / South stock
L_{∞} (cm) (Total length)	73.56	73.56
k	0.16	0.16
L_0 (cm)	13.56	13.56
M (year ⁻¹)	0.33	0.28

L_0 is the mean length at the recruitment age (1 yrs).

Table A10.13. Ageing error matrix of jack mackerel. Columns represent the observed ages, while the rows represent the true age. These data are not used in the stock assessment.

	1	2	3	4	5	6	7	8	9	10	11	12+
1	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.76	0.22	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.24	0.51	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.02	0.23	0.50	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.02	0.23	0.49	0.23	0.02	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.03	0.23	0.48	0.23	0.03	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.03	0.24	0.46	0.24	0.03	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.03	0.24	0.45	0.24	0.03	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.24	0.44	0.24	0.04	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.24	0.43	0.24	0.04
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.24	0.42	0.29
12+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.24	0.71

Table A10.14. Input mean body mass (kg) at age over time assumed for Fleet 1 (northern Chile).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1971	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1972	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1973	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1974	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1975	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1976	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1977	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1978	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1979	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1980	0.203	0.201	0.237	0.275	0.328	0.375	0.504	0.861	0.995	1.159	1.397	1.534
1981	0.164	0.187	0.238	0.268	0.308	0.368	0.464	0.796	0.995	1.159	1.397	1.534
1982	0.183	0.201	0.233	0.261	0.295	0.344	0.402	0.447	0.995	1.159	1.397	1.534
1983	0.12	0.166	0.249	0.284	0.33	0.418	0.497	0.606	0.995	1.159	1.397	1.534
1984	0.151	0.148	0.243	0.289	0.342	0.421	0.499	0.567	0.995	1.159	1.397	1.534
1985	0.192	0.204	0.233	0.299	0.366	0.452	0.537	0.627	0.695	1.159	1.397	1.534
1986	0.136	0.212	0.273	0.313	0.408	0.475	0.55	0.687	1	1.159	1.397	1.534
1987	0.126	0.137	0.218	0.335	0.407	0.455	0.492	0.564	0.824	1.159	1.397	1.534
1988	0.182	0.197	0.221	0.34	0.444	0.49	0.539	0.801	1.108	1.159	1.397	1.534
1989	0.211	0.224	0.257	0.31	0.436	0.536	0.579	0.625	0.948	1.159	1.397	1.534
1990	0.11	0.271	0.318	0.38	0.457	0.572	0.675	0.752	0.797	1.485	1.397	1.534
1991	0.17	0.136	0.295	0.418	0.469	0.538	0.657	0.761	0.829	0.921	0.966	1.211
1992	0.147	0.186	0.23	0.296	0.47	0.545	0.605	0.712	0.844	0.968	1.334	1.534
1993	0.162	0.177	0.246	0.32	0.389	0.533	0.684	0.82	0.925	1.117	1.827	1.534
1994	0.195	0.226	0.287	0.347	0.454	0.614	0.783	0.884	1.014	1.178	1.581	1.534
1995	0.174	0.19	0.266	0.339	0.425	0.563	0.797	1.012	1.187	1.425	1.797	1.534
1996	0.189	0.193	0.281	0.362	0.512	0.704	0.954	1.182	1.356	1.445	2.008	1.534
1997	0.174	0.196	0.266	0.36	0.518	0.699	0.887	1.084	1.287	1.529	1.786	1.779
1998	0.151	0.165	0.251	0.343	0.539	0.794	1.025	1.218	1.404	1.584	1.933	2.526
1999	0.161	0.167	0.259	0.338	0.494	0.789	1.039	1.235	1.397	1.654	1.841	1.952
2000	0.188	0.199	0.262	0.357	0.486	0.801	1.058	1.159	1.31	1.454	1.656	2.052
2001	0.183	0.202	0.266	0.336	0.455	0.614	0.868	1.119	1.395	1.568	1.813	1.929
2002	0.182	0.201	0.265	0.33	0.449	0.638	0.86	1.093	1.312	1.499	1.665	2.073
2003	0.174	0.192	0.249	0.305	0.403	0.588	0.786	1.026	1.261	1.504	1.734	1.861
2004	0.195	0.204	0.259	0.311	0.396	0.52	0.685	0.857	1.065	1.395	1.517	1.772
2005	0.083	0.234	0.28	0.318	0.396	0.506	0.642	0.751	0.92	1.16	1.324	1.606
2006	0.114	0.186	0.289	0.349	0.413	0.512	0.618	0.76	0.938	1.041	1.312	1.725
2007	0.124	0.187	0.23	0.333	0.431	0.513	0.625	0.777	0.909	1.056	1.228	1.542
2008	0.033	0.215	0.287	0.336	0.421	0.525	0.62	0.726	0.88	1.016	1.16	1.479
2009	0.138	0.139	0.273	0.346	0.418	0.539	0.624	0.759	0.892	1.007	1.138	1.398
2010	0.095	0.182	0.236	0.321	0.414	0.539	0.651	0.796	1.056	1.374	1.56	1.778
2011	0.198	0.202	0.296	0.36	0.478	0.64	0.806	1.025	1.261	1.45	1.874	1.981
2012	0.201	0.213	0.297	0.349	0.491	0.65	0.827	1.062	0.968	1.835	2.222	2.796
2013	0.218	0.245	0.312	0.381	0.448	0.58	0.714	0.926	1.292	1.751	2.082	2.512
2014	0.192	0.265	0.418	0.544	0.643	0.785	0.913	1.002	1.345	1.592	2.407	2.971
2015	0.214	0.214	0.282	0.48	0.61	0.746	0.884	0.99	1.049	1.239	1.13	1.483
2016	0.236	0.258	0.316	0.377	0.483	0.584	0.791	0.872	1.132	1.284	1.544	2.045
2017	0.182	0.226	0.295	0.368	0.444	0.549	0.676	0.922	1.096	1.391	1.741	1.583
2018	0.105	0.241	0.304	0.376	0.493	0.594	0.771	0.922	1.342	1.627	1.792	2.549
2019	0.019	0.268	0.305	0.393	0.482	0.578	0.683	0.759	0.888	1.339	1.978	2.906
2020	0.062	0.23	0.302	0.424	0.56	0.686	0.813	1.014	1.204	1.366	1.408	2.801
2021	0.231	0.272	0.318	0.405	0.562	0.695	0.809	0.956	1.115	1.404	1.484	1.693
2022	0.231	0.227	0.361	0.412	0.458	0.496	0.582	0.629	0.947	1.404	1.484	1.693

Table A10.15. Input mean body mass (kg) at age over time assumed for Fleet 2 (central-south Chile).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1971	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1972	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1973	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1974	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1975	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1976	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1977	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1978	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1979	0.157	0.202	0.271	0.346	0.444	0.57	0.709	0.867	1.076	1.313	1.579	1.826
1980	0.203	0.201	0.237	0.275	0.328	0.375	0.504	0.861	0.995	1.159	1.397	1.534
1981	0.164	0.187	0.238	0.268	0.308	0.368	0.464	0.796	0.995	1.159	1.397	1.534
1982	0.183	0.201	0.233	0.261	0.295	0.344	0.402	0.447	0.995	1.159	1.397	1.534
1983	0.12	0.166	0.249	0.284	0.33	0.418	0.497	0.606	0.995	1.159	1.397	1.534
1984	0.151	0.148	0.243	0.289	0.342	0.421	0.499	0.567	0.995	1.159	1.397	1.534
1985	0.192	0.204	0.233	0.299	0.366	0.452	0.537	0.627	0.695	1.159	1.397	1.534
1986	0.136	0.212	0.273	0.313	0.408	0.475	0.55	0.687	1	1.159	1.397	1.534
1987	0.126	0.137	0.218	0.335	0.407	0.455	0.492	0.564	0.824	1.159	1.397	1.534
1988	0.182	0.197	0.221	0.34	0.444	0.49	0.539	0.801	1.108	1.159	1.397	1.534
1989	0.211	0.224	0.257	0.31	0.436	0.536	0.579	0.625	0.948	1.159	1.397	1.534
1990	0.11	0.271	0.318	0.38	0.457	0.572	0.675	0.752	0.797	1.485	1.397	1.534
1991	0.17	0.136	0.295	0.418	0.469	0.538	0.657	0.761	0.829	0.921	0.966	1.211
1992	0.147	0.186	0.23	0.296	0.47	0.545	0.605	0.712	0.844	0.968	1.334	1.534
1993	0.162	0.177	0.246	0.32	0.389	0.533	0.684	0.82	0.925	1.117	1.827	1.534
1994	0.195	0.226	0.287	0.347	0.454	0.614	0.783	0.884	1.014	1.178	1.581	1.534
1995	0.174	0.19	0.266	0.339	0.425	0.563	0.797	1.012	1.187	1.425	1.797	1.534
1996	0.189	0.193	0.281	0.362	0.512	0.704	0.954	1.182	1.356	1.445	2.008	1.534
1997	0.174	0.196	0.266	0.36	0.518	0.699	0.887	1.084	1.287	1.529	1.786	1.779
1998	0.151	0.165	0.251	0.343	0.539	0.794	1.025	1.218	1.404	1.584	1.933	2.526
1999	0.161	0.167	0.259	0.338	0.494	0.789	1.039	1.235	1.397	1.654	1.841	1.952
2000	0.188	0.199	0.262	0.357	0.486	0.801	1.058	1.159	1.31	1.454	1.656	2.052
2001	0.183	0.202	0.266	0.336	0.455	0.614	0.868	1.119	1.395	1.568	1.813	1.929
2002	0.182	0.201	0.265	0.33	0.449	0.638	0.86	1.093	1.312	1.499	1.665	2.073
2003	0.174	0.192	0.249	0.305	0.403	0.588	0.786	1.026	1.261	1.504	1.734	1.861
2004	0.195	0.204	0.259	0.311	0.396	0.52	0.685	0.857	1.065	1.395	1.517	1.772
2005	0.083	0.234	0.28	0.318	0.396	0.506	0.642	0.751	0.92	1.16	1.324	1.606
2006	0.114	0.186	0.289	0.349	0.413	0.512	0.618	0.76	0.938	1.041	1.312	1.725
2007	0.124	0.187	0.23	0.333	0.431	0.513	0.625	0.777	0.909	1.056	1.228	1.542
2008	0.033	0.215	0.287	0.336	0.421	0.525	0.62	0.726	0.88	1.016	1.16	1.479
2009	0.138	0.139	0.273	0.346	0.418	0.539	0.624	0.759	0.892	1.007	1.138	1.398
2010	0.095	0.182	0.236	0.321	0.414	0.539	0.651	0.796	1.056	1.374	1.56	1.778
2011	0.198	0.202	0.296	0.36	0.478	0.64	0.806	1.025	1.261	1.45	1.874	1.981
2012	0.201	0.213	0.297	0.349	0.491	0.65	0.827	1.062	0.968	1.835	2.222	2.796
2013	0.218	0.245	0.312	0.381	0.448	0.58	0.714	0.926	1.292	1.751	2.082	2.512
2014	0.192	0.265	0.418	0.544	0.643	0.785	0.913	1.002	1.345	1.592	2.407	2.971
2015	0.214	0.214	0.282	0.48	0.61	0.746	0.884	0.99	1.049	1.239	1.13	1.483
2016	0.236	0.258	0.316	0.377	0.483	0.584	0.791	0.872	1.132	1.284	1.544	2.045
2017	0.182	0.226	0.295	0.368	0.444	0.549	0.676	0.922	1.096	1.391	1.741	1.583
2018	0.105	0.241	0.304	0.376	0.493	0.594	0.771	0.922	1.342	1.627	1.792	2.549
2019	0.019	0.268	0.305	0.393	0.482	0.578	0.683	0.759	0.888	1.339	1.978	2.906
2020	0.062	0.23	0.302	0.424	0.56	0.686	0.813	1.014	1.204	1.366	1.408	2.801
2021	0.231	0.272	0.318	0.405	0.562	0.695	0.809	0.956	1.115	1.404	1.484	1.693
2022	0.231	0.227	0.361	0.412	0.458	0.496	0.582	0.629	0.947	1.404	1.484	1.693

Table A10.16. Input mean body mass (kg) at age over time assumed for Fleet 3 (far north).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	0.045	0.171	0.377	0.642	0.945	1.265	1.587	1.9	2.196	2.47	2.721	2.946
1971	0.045	0.171	0.377	0.643	0.946	1.266	1.588	1.902	2.198	2.472	2.723	2.949
1972	0.03	0.13	0.306	0.548	0.835	1.148	1.47	1.789	2.095	2.382	2.647	2.887
1973	0.037	0.147	0.33	0.568	0.842	1.134	1.43	1.718	1.991	2.246	2.478	2.688
1974	0.038	0.147	0.326	0.558	0.825	1.108	1.393	1.671	1.934	2.178	2.402	2.603
1975	0.034	0.136	0.31	0.54	0.808	1.095	1.387	1.674	1.946	2.201	2.434	2.645
1976	0.044	0.16	0.34	0.567	0.822	1.087	1.351	1.606	1.845	2.065	2.266	2.446
1977	0.032	0.13	0.294	0.51	0.76	1.028	1.3	1.566	1.818	2.054	2.27	2.465
1978	0.032	0.129	0.295	0.516	0.774	1.05	1.332	1.608	1.872	2.117	2.343	2.547
1979	0.036	0.138	0.304	0.518	0.762	1.02	1.28	1.532	1.77	1.991	2.193	2.375
1980	0.036	0.136	0.298	0.506	0.743	0.994	1.245	1.49	1.721	1.934	2.13	2.306
1981	0.041	0.148	0.314	0.524	0.758	1.003	1.247	1.481	1.702	1.905	2.089	2.255
1982	0.039	0.144	0.309	0.519	0.755	1.002	1.249	1.488	1.712	1.92	2.108	2.278
1983	0.042	0.138	0.28	0.451	0.638	0.828	1.014	1.191	1.356	1.507	1.643	1.764
1984	0.044	0.156	0.328	0.541	0.778	1.024	1.267	1.501	1.719	1.921	2.103	2.267
1985	0.04	0.149	0.322	0.541	0.789	1.048	1.308	1.558	1.794	2.012	2.211	2.389
1986	0.042	0.151	0.323	0.539	0.781	1.033	1.285	1.527	1.755	1.965	2.156	2.327
1987	0.034	0.132	0.294	0.504	0.745	1.001	1.26	1.512	1.751	1.973	2.176	2.359
1988	0.038	0.145	0.315	0.533	0.78	1.041	1.302	1.554	1.793	2.013	2.215	2.396
1989	0.044	0.158	0.337	0.561	0.812	1.074	1.334	1.585	1.821	2.038	2.236	2.413
1990	0.042	0.15	0.32	0.532	0.769	1.017	1.263	1.499	1.722	1.927	2.113	2.28
1991	0.039	0.142	0.305	0.511	0.743	0.985	1.227	1.461	1.68	1.883	2.068	2.234
1992	0.04	0.148	0.318	0.534	0.776	1.031	1.286	1.531	1.763	1.976	2.171	2.346
1993	0.039	0.147	0.323	0.549	0.807	1.08	1.354	1.62	1.871	2.104	2.317	2.508
1994	0.036	0.147	0.335	0.584	0.874	1.186	1.503	1.813	2.109	2.385	2.638	2.867
1995	0.038	0.146	0.318	0.54	0.792	1.058	1.325	1.583	1.827	2.053	2.26	2.446
1996	0.038	0.145	0.317	0.537	0.788	1.053	1.318	1.576	1.82	2.045	2.251	2.436
1997	0.045	0.152	0.312	0.506	0.72	0.94	1.155	1.361	1.553	1.729	1.889	2.031
1998	0.04	0.14	0.294	0.483	0.693	0.911	1.126	1.333	1.526	1.703	1.864	2.008
1999	0.037	0.146	0.324	0.557	0.824	1.107	1.394	1.673	1.938	2.183	2.408	2.611
2000	0.035	0.145	0.336	0.592	0.893	1.218	1.55	1.877	2.189	2.481	2.75	2.994
2001	0.033	0.139	0.324	0.572	0.864	1.18	1.504	1.822	2.127	2.412	2.674	2.912
2002	0.036	0.145	0.33	0.576	0.861	1.167	1.478	1.783	2.074	2.344	2.593	2.817
2003	0.04	0.154	0.341	0.584	0.862	1.157	1.454	1.743	2.017	2.272	2.504	2.714
2004	0.038	0.149	0.333	0.574	0.852	1.148	1.447	1.74	2.017	2.275	2.511	2.724
2005	0.037	0.15	0.341	0.595	0.89	1.206	1.527	1.842	2.142	2.422	2.678	2.911
2006	0.038	0.152	0.347	0.606	0.907	1.23	1.558	1.88	2.187	2.473	2.735	2.973
2007	0.038	0.149	0.335	0.579	0.861	1.161	1.465	1.762	2.044	2.306	2.546	2.763
2008	0.036	0.146	0.334	0.585	0.876	1.19	1.51	1.823	2.122	2.4	2.656	2.888
2009	0.038	0.15	0.337	0.582	0.865	1.167	1.474	1.773	2.057	2.321	2.563	2.782
2010	0.039	0.15	0.332	0.567	0.837	1.123	1.411	1.691	1.956	2.203	2.428	2.631
2011	0.031	0.143	0.351	0.644	1	1.395	1.806	2.217	2.614	2.99	3.337	3.655
2012	0.032	0.145	0.349	0.632	0.971	1.344	1.731	2.115	2.485	2.834	3.156	3.449
2013	0.032	0.145	0.349	0.632	0.971	1.344	1.731	2.115	2.485	2.834	3.156	3.449
2014	0.032	0.145	0.349	0.632	0.971	1.344	1.731	2.115	2.485	2.834	3.156	3.449
2015	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2016	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2017	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2018	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2019	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2020	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2021	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327
2022	0.033	0.146	0.346	0.621	0.95	1.31	1.682	2.051	2.405	2.739	3.047	3.327

Table A10.17. Input mean body mass (kg) at age over time assumed for Fleet 4 (offshore trawl). Weight-at-age 1970-2013 were assumed to be the same as Fleet 2.

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1971	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1972	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1973	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1974	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1975	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1976	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1977	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1978	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1979	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1980	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1981	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1982	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1983	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1984	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1985	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1986	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1987	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1988	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1989	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1990	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1991	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1992	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1993	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1994	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1995	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1996	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1997	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1998	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
1999	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2000	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2001	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2002	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2003	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2004	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2005	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2006	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2007	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2008	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2009	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2010	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2011	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2012	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2013	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2014	0.157	0.223	0.329	0.429	0.613	0.741	0.835	0.935	1.049	1.145	1.308	1.543
2015	0.228	0.248	0.295	0.434	0.655	0.818	0.933	1.098	1.214	1.326	1.27	1.823
2016	0.311	0.383	0.399	0.428	0.481	0.61	0.837	0.883	0.985	1.094	1.535	1.265
2017	0.059	0.192	0.47	0.549	0.659	0.703	0.739	0.922	0.962	1.094	1.359	1.543
2018	0.066	0.146	0.305	0.388	0.507	0.606	0.649	0.634	0.778	0.868	1.051	1.68
2019	0.127	0.136	0.244	0.51	0.79	0.927	1.04	1.042	1.128	1.263	1.249	1.405
2020	0.152	0.234	0.259	0.265	0.588	0.778	0.811	1.029	1.228	1.226	1.382	1.543
2021	0.103	0.204	0.251	0.277	0.279	0.343	0.544	0.67	0.617	0.966	1.032	0.979
2022	0.132	0.135	0.223	0.311	0.424	0.554	0.682	0.824	1.011	1.153	1.27	1.42

Table A10.18. Years and types of information used in the JJM assessment models.

Fleet	Catch-at-age	Catch-at-length	Landings	CPUE	Acoustic	DEPM
1 North Chile purse seine	1980-2022	-	1970-2022	-	Index: 1984-1988; 1991; 2006-2021 Age comps: 2006-2021	-
2 South-central Chile purse seine	1980-2022	-	1970-2022	1983-2022	1997-2009 Age comps: 2001-2009	Index: 1999-2001; 2003-2008 Age comps: 2001; 2003- 2006; 2008
3 FarNorth	-	1980-2022	1970-2022	2002-2022	1985-2008; 2010-2013	-
4 International trawl off Chile	2015-2022	2015-2022*	1970-2022	China, EU, Korea, Russia, & Vanuatu (2008-2019; 2021)	-	-

(*) Are converted to age using age-length keys of central-southern area off Chile, the EU, and Russia.

Table A10.19. Symbols and definitions used for model equations.

General Definitions	Symbol/Value	Use in Catch at Age Model
Year index: $i = \{1970, \dots, 2022\}$	I	
Fleets (f) and surveys (s)	f, s	Identification of information source
Age index: $j = \{1, 2, \dots, 12^+\}$	J	
length index: $l = \{10, 11, \dots, 50\}$	l	
Mean length at age	L_j	
Variation coefficient of the length at age	cv	
Mean weight in year t by age j	$W_{t,j}$	
Maximum age beyond which selectivity is constant	$Maxage$	Selectivity parameterisation
Instantaneous Natural Mortality	M	Constant over all ages
Proportion females mature at age j	p_j	Definition of spawning biomass
Ageing error matrix	T	
Proportion of length at some age	Γ	Transform from age to length
Sample size for proportion in year i	T_i	Scales multinomial assumption about estimates of proportion at age
Survey catchability coefficient	q^s	Prior distribution lognormal(μ_q^s, σ_q^2)
Stock-recruitment parameters	R_0	Unfished equilibrium recruitment
	h	Stock-recruitment steepness
	σ_R^2	Recruitment variance
Unfished biomass	ϕ	Spawning biomass per recruit when there is no fishing
Estimated parameters		
$\phi_i(\#), R_0, h, \varepsilon_i(\#), \mu^f, \mu^s, M, \eta_j^s(\#), \eta_j^f(\#), q^s(\#)$		

Note that the number of selectivity parameters estimated depends on the model configuration.

Table A10.20. Variables and equations describing implementation of the Joint Jack Mackerel assessment model (JJM).

Eq	Description	Symbol/Constraints	Key Equation(s)
1)	Survey abundance index (s) by year. The symbol Δ^s represents the fraction of the year when the survey occurs.	I_i^s	$I_i^s = q^s \sum_{j=1}^{12} N_{ij} W_{ij} S_j^s e^{-\Delta^s Z_{ij}}$
2)	Catch biomass by fleet (f=1,2,3,4), year(i) and age (j) /length (l) (transformation from age to length composition. Fleet 3, FarNorth)	$\hat{C}_{il}, \hat{C}_{ij}, \hat{Y}_i$	$\hat{C}_{i,j}^f = N_{i,j} \frac{F_{i,j}^f}{Z_{i,j}^f} (1 - e^{-Z_{i,j}^f})$ $\hat{Y}_i^f = \sum_{j=1}^{12+} \hat{C}_{i,j}^f w_{i,j}^f$ $\hat{C}_{il} = \Gamma_{lj} \hat{C}_{ij}$ $\Gamma_{l,j} = \int_j^{j+1} e^{-\frac{1}{2\sigma_j^2}(l-L_j)^2} dl$ $L_j = L_{00}(1 - e^{-k}) + e^{-k} L_{j-1}$ $\sigma_j = cv L_j$
3)	Proportion at age j, in year i Proportion at length l, in year i		$p_{ij}^f = \frac{\hat{C}_{ij}^f}{\sum_j \hat{C}_{ij}^f} \quad p_{ij}^s = \frac{N_{ij} S_j^s e^{-\Delta^s Z_{ij}}}{\sum_j N_{ij} S_j^s e^{-\Delta^s Z_{ij}}}$ $P_{il} = \frac{C_{il}}{\sum_{l=10}^{50} C_{il}}$
4)	Initial numbers at age	$j = 1$	$N_{1970,j} = e^{\mu_R + \varepsilon_{1970}}$
5)		$1 < j < 11$	$N_{1970,j} = e^{\mu_R + \varepsilon_{1971-j}} \prod_{j=1}^j e^{-M}$
6)		$j = 12+$	$N_{1970,12+} = N_{1970,11} e^{-M} (1 - e^{-M})^{-1}$
7)	Subsequent years (i > 1970)	$j = 1$	$N_{i,1} = e^{\mu_R + \varepsilon_i}$
8)		$1 < j < 11$	$N_{i,j} = N_{i-1,j-1} e^{-Z_{i-1,j-1}}$
9)		$j = 12+$	$N_{i,12+} = N_{i-1,11} e^{-Z_{i-1,10}} + N_{i-1,12} e^{-Z_{i-1,11}}$
10)	Year effect and individuals at age 1 and i = 1958, ..., 2022	$\varepsilon_i, \sum_{i=1958}^{final\ year} \varepsilon_i = 0$	$N_{i,1} = e^{\mu_R + \varepsilon_i}$

Eq	Description	Symbol/Constraints	Key Equation(s)
11)	Index catchability		$q_i^s = e^{\mu^s}$
	Mean effect	μ^s, μ^f	$S_j^s = e^{\eta_j^s} \quad j \leq \text{maxage}$
	Age effect	$\eta_j^s, \sum_{j=1958}^{\text{final year}} \eta_j^s = 0$	$S_j^s = e^{\eta_{\text{maxage}}^s} \quad j > \text{maxage}$
12)	Instantaneous fishing mortality		$F_{ij}^f = e^{\mu^f + \eta_j^f + \phi_i}$
13)	Mean fishing effect	μ^f	
14)	Annual effect of fishing mortality in year i	$\phi_i, \sum_{i=1970}^{\text{final year}} \phi_i = 0$	
15)	age effect of fishing (regularised) In year time variation allowed	$\eta_j^f, \sum_{j=1958}^{\text{final year}} \eta_j^f = 0$	$S_{ij}^f = e^{\eta_j^f} \quad j \leq \text{maxage}$ $S_{ij}^f = e^{\eta_{\text{maxage}}^f} \quad j > \text{maxage}$
	In years where selectivity is constant over time	$\eta_{i,j}^f = \eta_{i-1,j}^f$	$i \neq \text{change year}$
16)	Natural Mortality	M	fixed
17)	Total mortality		$Z_{ij} = \sum_j F_{ij}^f + M$
17)	Spawning biomass (note spawning taken to occur at mid of November)	B_i	$B_i = \sum_{j=2}^{12} N_{ij} e^{-\frac{10.5}{12} Z_{ij}} W_{ij} p_j$
18)	Recruits (Beverton-Holt form) at age 1.	\tilde{R}_i	$\tilde{R}_i = \frac{\alpha B_i}{\beta + B_i}$ $\alpha = \frac{4hR_0}{5h-1}$ and $\beta = \frac{B_0(1-h)}{5h-1}$ where $B_0 = R_0 \varphi$ $\varphi = \sum_{j=1}^{12} e^{-M(j-1)} W_j p_j + \frac{e^{-12M} W_{12} p_{12}}{1 - e^{-M}}$ h=0.8

Table A10.21 Specification of objective function that is minimised (i.e., the penalised negative of the log-likelihood).

Eq	Likelihood /penalty component		Description / noted
19)	Abundance indices	$L_1 = 0.5 \sum_s \frac{1}{cv_s^2} \sum_i \log\left(\frac{I_i}{\hat{I}_i}\right)^2$	Surveys / CPUE indexes
20)	Prior on smoothness for selectivities	$L_2 = \sum_l \lambda_2^l \sum_{j=1}^{12} (\eta_{j+2}^l + \eta_j^l - 2\eta_{j+1}^l)^2$	Smoothness (second differencing), Note: $l=\{s, \text{ or } f\}$ for survey and fishery selectivity
21)	Prior on recruitment regularity	$L_3 = \lambda_3 \sum_{i=1958}^{\text{final year}} \varepsilon^2_i$ $\lambda_3 = \frac{0.5}{\sigma_R^2}$	Influences estimates where data are lacking (e.g., if no signal of recruitment strength is available, then the recruitment estimate will converge to median value).
22)	Catch biomass likelihood	$L_4 = 0.5 \sum_f \frac{1}{cv_f^2} \sum_{i=1970}^{\text{final year}} \log\left(\frac{Y_i^f}{\hat{Y}_i^f}\right)^2$	Fit to catch biomass in each year
23)	Proportion at age/length likelihood	$L_5 = -\sum_{v,l,j} n^v P_{i,j/l}^v \log(\hat{P}_{i,j/l}^v)$	$v=\{s, f\}$ for survey and fishery age composition observations $P_{i,j/l}$ are the catch-at-age/length proportions n effective sample size
24)	Dome-shaped selectivity	$L_6 = \lambda_4 \sum_{j=6}^{12} (\ln S_{j-1} - \ln S_j)^2$ $S_{j-1} > S_j$	(relaxed in final phases of estimation)
25)	Fishing mortality regularity	F values constrained between 0 and 5	(relaxed in final phases of estimation)
26)	Recruitment curve fit	$L_7 = \lambda_5 \sum_{j=1970}^{2015} \log\left(\frac{N_{i,1}}{\hat{R}_i}\right)^2$ $\lambda_5 = \frac{0.5}{\sigma_R^2}$	Conditioning on stock-recruitment curve over period 1970-2015. (Assessment models use the period 1970 to (present year – 3))
27)	Priors or assumptions	R_0 non-informative	$\sigma_R = 0.6$
28)	Overall objective function to be minimised	$\dot{L} = \sum_k L_k$	

Table A10.22. Coefficients of variation and sample sizes used in likelihood functions, with adjustments based on calculated Francis weights. Initial sample sizes are in parentheses.

Abundance index	CV	Catch biomass likelihood	CV
Acoustic CS-Chile	0.20	N-Chile	0.05
Acoustic N-Chile	0.50	CS-Chile	0.05
CPUE – Chile	0.15	Farnorth	0.05
DEPM – Chile	0.50	Offshore	0.05
Acoustic –Peru	0.20		
CPUE – Peru	0.20		
CPUE – Offshore	0.20		
Smoothness for selectivities (indexes)	Λ	Proportion at age likelihood (indexes)	n
Acoustic CS-Chile	100	Acoustic CS-Chile	6.8 (150)
Acoustic N-Chile	100	Acoustic N-Chile	12.4 (150)
CPUE – Chile	100	DEPM – Chile	1
CPUE – Offshore	100		
Smoothness for selectivities (fleets)	λ	Proportion at age (or length) likelihood	n
N -Chile	1	N-Chile	23.9 (100)
CS-Chile	25	CS-Chile	64.3 (250)
Farnorth	12.5	Farnorth (length)	30
Offshore	12.5	Offshore	12.6 (150)
Recruitment regularity	λ	S – Recruitment curve fit	cv
	1.4		0.6

Table A10.23. Description of JJM model components and how selectivity was treated (two-stock hypothesis; Far North Stock).

Item	Description	Selectivity assumption
Fisheries		
1)	Peruvian and Ecuadorian area fishery	Selectivity in the model under the two-stock hypothesis was estimated from length composition data (converted to age inside the model). Two regimes were considered – before and after 2002. This is a different assumption from the single-stock hypothesis, which has annual variations in selectivity between 1981 and 2022.
Index series		
2)	Acoustic survey in Peru	Assumed to be the same as in fishery 1)
3)	Peruvian fishery CPUE	Assumed to be the same as in fishery 1)

Table A10.24. Description of JJM model components and how selectivity was treated (two-stock hypothesis; Southern Stock).

Item	Description	Selectivity assumption
Fisheries		
1)	Chilean northern area fishery	Estimated from age composition data. Annual variations were considered since 1984
2)	Chilean central and southern area fishery	Estimated from age composition data. Annual variations were considered since 1984.
3)	Offshore trawl fishery	Estimated from age composition data. Annual variations were considered since 1980. Additional flexibility in selectivity was allowed for 2022 to reflect a change in the fishing pattern.
Index series		
4)	Acoustic survey in central and southern Chile	Estimated from age composition data. Two time-blocks were considered 1970-2004; 2005-2009.
5)	Acoustic survey in northern Chile	Estimated from age composition data. Selectivity changes were implemented in 2012 and 2016.
6)	Central and southern fishery CPUE	Assumed to be the same as 2)
7)	Egg production survey	Estimated from age composition data. Two time-blocks were considered 1970-2002; 2003-2008.
8)	Offshore fleet (China, EU, Korea, Russia, Vanuatu) CPUE	Assumed to be the same as 3)

Table A10.25. Description of JJM model components and how selectivity was treated under the single-stock hypothesis.

Item	Description	Selectivity assumption
Fisheries		
1)	Chilean northern area fishery	Estimated from age composition data. Annual variations were considered since 1984
2)	Chilean central and southern area fishery	Estimated from age composition data. Annual variations were considered since 1984.
3)	Peruvian and Ecuadorian area fishery	Estimated from length composition data (converted to age inside the model). Annual variations were considered since 1981
4)	Offshore trawl fishery	Estimated from age composition data. Annual variations were considered since 1980. Additional flexibility in selectivity was allowed for 2022 to reflect a change in the fishing pattern.
Index series		
5)	Acoustic survey in central and southern Chile	Estimated from age composition data. Two time-blocks were considered 1970-2004; 2005-2009.
6)	Acoustic survey in northern Chile	Estimated from age composition data 2006-2016. Selectivity changes were implemented in 2015 and 2016
7)	Central and southern fishery CPUE	Assumed to be the same as 2)
8)	Egg production survey	Estimated from age composition data 2001, 2003-2006, 2008. Two time-blocks were considered around 2003.
9)	Acoustic survey in Peru	Assumed to be the same as 3)
10)	Peruvian fishery CPUE	Assumed to be the same as 3)
11)	Offshore fleet (Vanuatu, Russia, Korea, EU & China) CPUE	Assumed to be the same as 4)

Table A10.26. Systematic model progression from the 2021 assessment data to the agreed revised datasets for 2022. Note that the data file names corresponding to each model follow the same naming convention, but with the stock-structure hypothesis denoted as h1 for the single-stock and h2 for the two-stock (e.g., “0.01.dat” with “h1_0.01.ctl” and “h2_0.01.ctl”).

Model	Description
Models 0.x	Data introductions
0.00	Exact 2021 (single stock h1 and two-stock h2) model and data set (model 1.14) from benchmark SCW14.
0.01	As 0.00 but with revised catches through 2021 (currently still estimates)
0.02	As 0.01 but with updated 2021 fishery age composition data for N_Chile, SC_Chile, and Offshore_Trawl, and updated 2021 fishery length composition data for FarNorth
0.03	As 0.02 but with updated 2021 weight at age data for all fisheries and their associated CPUE indices
0.04	As 0.03 but replaced offshore CPUE up to 2021
0.05	As 0.04 but with updated AcousN 2021 index, with associated age composition and weight at age
0.06	As 0.05 but with 2022 catch projections
0.07	As 0.06 but with updated 2022 fishery age composition data for N_Chile, SC_Chile, and Offshore_Trawl, and updated 2022 fishery length composition data for FarNorth
0.08	As 0.07 but with updated 2022 weight at age data for N_Chile, SC_Chile, and FarNorth fleets, and for their associated CPUE indices
0.09	As 0.08 but replaced SC_Chile_CPUE index (traditional absolute scaled CPUE by trip)
0.1	As 0.09 but replaced Peru_CPUE index
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Models 1.x	Updated Model and Sensitivities
1.00	As 0.10 but with updated model (selectivity changes, recruitment) to 2022; 0.10 data file
1.01	As 1.00 but with correct growth parameters to reflect FL (Linf=73.56; L0=13.56; SC10-Doc27 Peru National Report - ANJ)
1.02	As 1.01 but with added flexibility for selectivity in the offshore fleet

Table A10.27. Spawning biomass of jack mackerel (base model under the single-stock hypothesis) estimated in previous SPRFMO SC meetings.

Year	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9	SC10
1970	8761	6726	10082	9770	9928	10319	10289	10629	11383	14378
1971	8112	6384	9164	8872	9037	10015	9964	10214	10979	13372
1972	7818	6173	8527	8289	8457	9854	9783	9964	10731	12456
1973	7726	6015	8042	7911	8079	9756	9666	9794	10521	11541
1974	7676	5910	7673	7633	7800	9646	9538	9625	10249	10560
1975	7763	5894	7446	7511	7675	9604	9480	9534	9984	9742
1976	8141	6075	7454	7638	7799	9752	9610	9638	9822	9136
1977	8810	6589	7808	8027	8186	10112	9948	9955	9808	8711
1978	9551	7151	8224	8445	8603	10458	10267	10256	9810	8562
1979	10188	7613	8553	8810	8965	10717	10497	10473	9832	8470
1980	10854	8276	9085	9349	9494	11124	10881	10847	10069	8560
1981	11170	8521	9213	9561	9693	11174	10920	10878	9982	8423
1982	10806	8122	8679	9137	9252	10513	10263	10217	9192	8033
1983	11092	8503	8926	9487	9578	10584	10358	10310	9344	9078
1984	11122	8635	8942	9653	9722	10502	10310	10264	9434	9507
1985	11554	9342	9557	10297	10351	10869	10721	10679	10077	10080
1986	13159	11355	11531	11890	11936	12177	12075	12039	11772	13579
1987	14919	13284	13459	13371	13411	13402	13344	13314	13297	18078
1988	15496	13716	13894	13801	13830	13717	13702	13679	13828	19862
1989	15050	13082	13256	13389	13406	13455	13472	13454	13502	18745
1990	14228	12207	12371	12701	12699	13076	13116	13101	13136	17271
1991	13098	11032	11197	11792	11763	12408	12466	12455	12537	16133
1992	11909	9856	10018	10772	10716	11542	11610	11602	11763	15260
1993	10802	8942	9082	9800	9722	10658	10726	10720	10743	13700
1994	9271	7518	7634	8165	8070	9061	9127	9123	9074	11132
1995	7154	5448	5532	5901	5794	6696	6761	6758	6666	8161
1996	5819	3820	3862	4174	4073	4775	4832	4831	4740	6003
1997	4950	2990	2965	3254	3181	3609	3655	3657	3564	4719
1998	4985	3158	3074	3539	3498	3677	3724	3730	3573	4814
1999	5668	3937	3795	4475	4457	4434	4499	4511	4278	5956
2000	6671	5018	4834	5616	5624	5463	5556	5574	5312	7308
2001	7481	5892	5690	6368	6404	6172	6298	6323	6095	7759
2002	8083	6699	6544	7010	7073	6805	6965	6997	6770	8442
2003	8201	6952	6848	7274	7349	7080	7270	7309	7078	8463
2004	7641	6564	6475	6908	6979	6725	6935	6980	6751	7815
2005	6708	5763	5676	6159	6225	5997	6213	6262	6056	7188
2006	5486	4682	4595	5102	5160	4979	5195	5248	5061	6049
2007	4119	3430	3324	3846	3890	3754	3973	4029	3857	4241
2008	3067	2545	2382	2890	2915	2779	2998	3055	2926	2986
2009	2130	1850	1598	2070	2074	1893	2103	2159	2076	2465
2010	1709	1647	1291	1775	1758	1538	1728	1778	1703	2413
2011	1855	1861	1382	1868	1832	1667	1817	1855	1782	2373
2012	2304	2115	1552	2065	2015	1980	2068	2090	2038	2458
2013	3085	2383	1814	2308	2248	2339	2362	2370	2348	2659
2014	-	2738	2222	2667	2572	2725	2687	2691	2719	3127
2015	-	3206	2720	3273	3103	3176	3019	3042	3107	3767
2016	-	-	3174	4116	3885	3606	3390	3456	3567	4857
2017	-	-	-	-	5294	4097	3915	4047	4190	6867
2018	-	-	-	-	-	4777	4821	5078	5264	9747
2019	-	-	-	-	-	-	6188	6673	6956	12041
2020	-	-	-	-	-	-	-	8273	8740	12802
2021	-	-	-	-	-	-	-	-	9960	13547
2022	-	-	-	-	-	-	-	-	-	14289

Table A10.28. Estimated begin-year numbers at age (Model *h_1.02*; single-stock hypothesis).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	5771.73	4671.65	3822.52	3129.81	2546.08	2054.31	1647.14	1311.23	1035.26	811.09	631.2	2543.37
1971	5377.5	4360.77	3525.02	2876.82	2341.76	1882.11	1508.53	1223.52	982.33	778.16	609.7	2386.32
1972	4958.65	4062.13	3287.4	2646.38	2139.98	1710.43	1361.01	1110.27	912.33	736.22	583.25	2245.59
1973	4433.17	3745.56	3062.18	2467.74	1972.27	1583.61	1261.69	1013.22	831.89	685.29	553.09	2125.2
1974	4500.37	3346.95	2817.72	2285.36	1817.97	1442.01	1154.83	932.79	756.18	623.2	513.52	2006.95
1975	5846.29	3393.3	2509.91	2077.7	1633.26	1283.52	1012.33	834.68	687.48	561.59	462.93	1872.29
1976	7300.93	4410.53	2542.53	1854.42	1496.14	1137.53	879.49	720.9	611.15	508.91	415.92	1729.48
1977	10829	5502.41	3288.47	1854.91	1302.21	1004.27	747.68	610.49	520.4	448.07	373.41	1574.17
1978	13584	8092.14	4018.65	2219.42	1095.21	796.58	631.45	504.51	428.73	371.34	320.09	1391.32
1979	14113.3	10149.8	5867.29	2686.09	1290.2	610.21	437.64	390.87	337.44	295.38	256.32	1181.32
1980	14697.2	10534	7330.1	3915.75	1573.8	714.72	328.23	257.39	240.58	209.37	183.7	894.1
1981	17152.4	10962.2	7591.7	4869.21	2288.62	894.2	400.81	196.53	158.02	147.5	128.7	662.56
1982	19827.8	12740.3	7657.37	4665.36	2564.23	1125.8	428.1	210.72	107.2	85.99	80.72	433.03
1983	27563.5	14623.4	8680.55	4571.48	2285.65	975.17	368.3	162.53	84.66	42.47	34.3	204.93
1984	20854.3	20330	10194.5	5501.8	2552.04	1136.19	431.88	151.73	59.09	27.97	14.1	79.43
1985	24765.5	15159.8	13368.2	6326.95	2871.56	977.2	336.61	122.56	39.75	14.46	6.88	23.02
1986	55243.2	18156.9	10321	8453.62	3480.79	1256.77	358.55	118.56	41.25	13.02	4.76	9.85
1987	51806.6	40836.9	12933.7	6864.83	5146.85	1789.98	544.29	150.88	47.51	16.02	5.05	5.67
1988	25731.2	38022.1	27938	8636.12	4261.79	2654.19	753.9	223.46	60.58	18.5	6.13	4.1
1989	15289.8	18773	26112.5	18216.8	5434.29	2482.39	1355.91	339.56	90.35	22.32	6.42	3.55
1990	17285.3	11268.8	13214.4	16778.4	11150.5	3273.84	1396.69	671.4	142.67	32.25	7.14	3.19
1991	22671.6	12793.5	8125.97	9032.83	10538.6	6564.27	1787.15	686.38	296.22	53.36	10.6	3.4
1992	25305.6	16766.1	9151.31	5609.24	5847.1	6193.34	3383.58	786.03	255.54	96.18	16.15	4.24
1993	14500.6	18722.3	11909.5	6218.14	3637.94	3619.62	3293.37	1382.3	211.48	55.43	24.27	5.15
1994	15774.3	10581.4	12653.2	7735.46	3853.49	2157.11	2023.37	1505.43	407.33	44.88	12.56	6.67
1995	14854.3	11526.1	7182.93	7848.01	4440.73	2047.11	1031.07	713.96	365.06	78.78	8.53	3.66
1996	15055.9	10705.4	6812.28	3501.95	3386.18	1772.38	793.91	301.05	144.83	53.49	9.8	1.52
1997	17642.8	10467.7	5680.93	2742.28	1293.59	1259.71	625.8	230.57	67.42	25.01	7.92	1.68
1998	17300.4	12304.2	4641.88	1732.15	939.97	507.55	467.82	184.65	52.45	11.96	3.87	1.49
1999	22025.8	12334	6045.69	1947.11	827.74	492.02	257.23	208.28	70.16	16.99	3.48	1.56
2000	20678.7	15771.5	7122.05	3322.12	1137.29	508	299.71	146.39	107.12	32.14	7.12	2.11
2001	20570.8	14925.4	9714.36	3960.59	2020.95	734.37	329.91	187.77	86.27	59.36	17.04	4.9
2002	18555.1	14381.7	8614.1	4471.56	2155.55	1217.04	448.29	193.2	102.98	44.59	29.78	11.01
2003	11286.6	13427.9	9219.72	5108.04	2610.22	1302.3	736.65	258.17	103.39	52.13	22.12	20.23
2004	10172.5	8093.3	8519.27	5523.73	2967.12	1574.77	794.15	430.45	140.31	53.25	26.33	21.39
2005	10989.1	7300.7	5125.47	5034.86	3111.58	1723.44	927.2	449.72	230.06	71.76	26.75	23.98
2006	6272.8	7752.11	4727.51	3104.08	2761.11	1719.23	981.4	514.34	238.34	118.84	36.92	26.1
2007	2127.24	4410.88	4793.51	2719.9	1649.51	1353	868.44	480.38	244.21	114.91	59.75	31.69
2008	5786.18	1418.69	2511.79	2489.14	1361.05	765.15	584.64	360.27	189.78	103.07	52.64	41.89
2009	9198.5	3648.79	745.1	1264.09	1142.87	596.92	331.16	254.1	153.85	84.37	49.25	45.17
2010	5379.48	6269.99	1980.09	371.33	479.33	381.29	198.19	115.11	93.68	63.56	37.81	42.32
2011	4432.69	3602.71	3524.87	1091.16	183.48	215.12	174.83	84.16	53.96	49.96	35.7	45
2012	4015.22	3172.7	2483.22	1915.14	598.51	96.06	116.95	92.99	49.68	33.74	32.14	51.92
2013	4332.18	2975.76	2276.21	1570.96	1140.86	338.16	57.78	73.67	60.72	33.04	22.6	56.32
2014	7372.45	3207.58	2121.74	1517.72	982.18	742.29	223.64	38.15	48.74	40.19	21.86	52.21
2015	7734.99	5463.35	2303.92	1431.79	989.97	646.23	495.21	148.66	24.82	31.18	25.54	47.06
2016	13846.5	5755.13	3865.62	1597.04	981.22	662.7	429.22	327.72	94.91	15.08	18.54	43.17
2017	21923	10390.1	4198.62	2723.12	1085.4	652.1	439.4	284.91	213.64	59.67	9.27	37.92
2018	27908.7	16412.8	7644.81	3025.3	1908.2	722.89	423.3	283.15	181.67	134.06	37.14	29.37
2019	16711	20956.9	12210.6	5517.65	2126.24	1291.11	472.93	270.3	178.35	113.99	83.92	41.63
2020	6825.92	12575.9	15668.6	8900.14	3935.48	1449.47	853.27	300.36	169.12	113.19	73.16	80.58
2021	15997.1	5142.27	9423.72	11618.8	6464.07	2779.27	967.19	546.9	188.03	108.51	74.21	100.81
2022	9709.52	12021.5	3835.35	6959.25	8485.88	4624.36	1920.77	633.86	347.27	118.29	69.3	111.77

Table A10.29. Estimated begin-year numbers at age (Model *h*_{2.02}; two-stock hypothesis; southern stock).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	5888.22	4756.58	3876.92	3154.7	2546.28	2037.51	1620.42	1279.65	1002.83	780.55	604.05	2263.64
1971	5480.5	4448.61	3587.55	2915.05	2356.9	1878.61	1496.89	1205.1	959.24	753.96	586.87	2156.11
1972	5064.62	4139.79	3351.6	2690.12	2164.7	1717.23	1360.01	1103.97	899.55	719.27	565.37	2056.88
1973	4507.86	3826.01	3120.07	2516.7	2008.7	1602.75	1268.79	1014.26	828.13	676.21	540.73	1971.36
1974	4410.14	3404.49	2878.29	2333.19	1866.44	1473.17	1173	941.15	758.78	621.52	507.59	1885.69
1975	5600.39	3329.97	2558.74	2146.08	1714.24	1335.21	1045.18	855.1	698.21	566.63	464.19	1787.45
1976	7051.41	4226.12	2493.02	1890.87	1552	1196.02	922.37	750.2	629.06	518.43	420.84	1672.32
1977	9490.49	5316.65	3147.23	1820.07	1338.17	1046.21	796.38	648.06	545.56	463.43	382.11	1542.77
1978	12156.5	7152.36	3946.35	2281.91	1276.96	897.59	695.64	558.72	470.4	401.11	340.95	1416.16
1979	12787.7	9141.88	5243.42	2779.08	1512.99	774.05	532.2	455.12	388.47	334.12	285.19	1249.32
1980	13296.4	9599.65	6665.43	3656.04	1822.7	914.41	455.76	335.53	294.24	249.96	215.26	988.61
1981	14760.1	9979.78	6992.42	4645.03	2414.98	1135.78	560.4	292.54	217.15	188.02	159.95	770.36
1982	16120.9	11013.6	7022.9	4524.13	2744.86	1324.03	616.18	326.68	172.49	125.51	109	539.3
1983	27246.3	11934.8	7507.15	4231.97	2332.66	1175.65	531.14	279.72	149.26	75.01	54.78	282.98
1984	22956.1	20176	8325.95	4809.99	2471.78	1253.99	591.29	249.37	111.69	51.8	26.11	117.57
1985	24039.9	16760.1	13350.4	5263.33	2620.62	1019.6	430.66	191.44	67.21	25.49	11.86	32.89
1986	55124.1	17641.9	11475.3	8500.69	2924.07	1166.4	396.26	157.33	60.67	19.18	7.29	12.8
1987	50004.1	40730	12566.3	7680.62	5217.43	1491.99	508.39	165.1	57.74	20.31	6.4	6.7
1988	22568.7	36653.3	27826.2	8427.92	4814.49	2707.76	629.11	207.59	63.09	20.58	7.12	4.59
1989	13072.4	16430.8	25153.5	18383.7	5429.34	2871.95	1402.94	283.48	82.32	22.43	6.95	3.95
1990	17439.4	9624.65	11562.3	16272	11511.3	3339.33	1637.99	697.73	118.17	29.02	7.2	3.5
1991	21836.8	12905.6	6947.49	7964.69	10513.5	6934.7	1849.83	814.47	308.12	44.09	9.72	3.58
1992	23917.5	16143.2	9237.73	4823.9	5254.81	6291.91	3647.39	828.41	309.85	102.98	14.02	4.23
1993	14378.9	17677.4	11452.8	6305.92	3161.56	3274.31	3403.39	1543.07	235.06	72.91	28.46	5.04
1994	14674.5	10474.5	11917.2	7521.92	3969.79	1887.12	1841.15	1593.5	484.67	55.12	18.49	8.49
1995	11531.2	10691.4	7094.77	7492.25	4427.09	2141.38	902.56	650.49	403.89	103.15	11.77	5.76
1996	13400.5	8261.03	6241.31	3685.45	3507.32	1857.39	859.27	271.78	139.3	65.62	14.68	2.49
1997	14556.7	9215.41	4180.31	2737.2	1547.36	1436.41	712.22	272.34	66.77	26.61	10.74	2.81
1998	15230.2	10088.5	4028.68	1638.71	1185.33	711.08	616.81	247.64	73.53	13.83	4.66	2.37
1999	17216.9	10847.4	5027.22	2123.55	921.21	695.24	402.52	313.54	108.78	27.12	4.44	2.26
2000	19270.7	12246.7	6226.66	2986.68	1319.81	593.74	446.04	244.55	174.1	53.32	11.82	2.92
2001	19863.8	13872.2	7467.63	3749.9	1903.71	880.53	397.42	289.41	149.71	99.39	28.61	7.91
2002	18409.2	13919.6	8294.3	4294.52	2270.31	1217.54	565.53	245.61	167.66	80.92	51.29	18.84
2003	12033	13338.1	8978.26	5118.55	2601	1415.88	759.72	337.21	136.04	86.83	40.34	34.96
2004	7346.12	8641.88	8597.94	5593.8	3103.44	1622.05	889.44	458.35	189.36	71.56	44.11	38.25
2005	8384.09	5248.24	5546.11	5280.5	3294.03	1864.31	980.96	516.82	250.26	97.72	35.74	41.14
2006	5301.28	5836.03	3352.43	3414.18	3000.05	1880.57	1088.34	555.19	277.46	129	49.46	38.92
2007	2435.93	3703.01	3609.91	2071.69	1935.11	1567.97	995.26	550.56	268.61	133.6	63.83	43.73
2008	5876.38	1617.75	2086.47	2041.27	1127.14	956	725.48	437.64	226.19	114.47	60.59	48.77
2009	5038.92	3657.21	863.92	1143.19	1014.6	519.08	436.27	333.83	196.57	103.16	54.89	52.44
2010	3832.12	3327.76	1955.46	447.36	465.83	354.01	180.41	162	133.34	85.44	47.2	49.1
2011	4056.03	2451.4	1616.82	1028.52	220.23	211.34	162.37	76.59	77.47	71.93	47.94	54.03
2012	4184.03	2883.99	1713.37	1091.87	617.5	121.31	116.82	86.59	45.94	49.71	47.37	67.16
2013	4889.8	3102.24	2084.52	1171.47	683.48	351.75	73.4	73.77	56.95	30.97	33.88	78.05
2014	8193.03	3622.18	2218.85	1417.39	740.54	431.47	228.97	48.16	48.92	38.15	20.9	75.51
2015	8490.65	6074.33	2620.79	1556.81	954.4	478.06	278.14	149.45	31.19	31.66	24.86	62.82
2016	11306.1	6314.96	4328.95	1851.24	1078.24	635.24	308.9	177.75	93.51	19.09	19.43	53.81
2017	14976.4	8474.37	4616.12	3083.84	1273.53	719.88	416.45	199.93	112.94	58.65	11.98	45.97
2018	22887.6	11179.9	6210.42	3332.59	2172.77	854.76	467.19	264.4	124.44	69.73	36.67	36.23
2019	16004.1	17167.1	8306.03	4510.82	2358.03	1484.76	564.82	298.72	164.56	76.79	43.39	45.37
2020	6817.61	12043	12843.3	6128.04	3241.2	1620.22	994.87	364.38	188.28	104	48.97	56.6
2021	15853	5136.43	9028.46	9566.44	4486.19	2279.49	1087.4	649.46	232.93	121.98	68.16	69.2
2022	9467.07	11913.7	3831.12	6672.22	7016.09	3184.12	1556.35	718.83	421.1	148.62	77.92	87.75

Table A10.30. Estimated begin-year numbers at age (Model *h2_1.02*; two-stock hypothesis; far north stock).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	2291.59	1553.02	1121.54	809.21	583.7	420.82	303.23	218.43	157.29	113.23	81.49	225.55
1971	2277.02	1647.44	1116.2	804.26	578.47	418.84	302.43	217.98	157.02	113.07	81.4	220.72
1972	2257.58	1636.93	1183.75	798.47	571.8	414.34	300.91	217.39	156.68	112.86	81.28	217.16
1973	2233.27	1622.86	1175.32	840.94	558.95	407.45	297.39	216.24	156.22	112.59	81.11	214.46
1974	2228.55	1605.19	1163.46	823.31	570.5	394.16	291.88	213.6	155.31	112.2	80.87	212.29
1975	2228.64	1600.99	1143.61	768.97	490.52	385.28	280.11	209.21	153.1	111.32	80.42	210.13
1976	2189.43	1601.86	1147.75	800.92	521.42	345.84	275.99	201.19	150.27	109.97	79.96	208.69
1977	3174.18	1573.56	1147.3	796.88	532.67	365.27	247.45	198.17	144.46	107.9	78.96	207.26
1978	2370.14	2272.51	1074.36	510.52	196.18	268.02	245.85	174.87	140.05	102.09	76.25	202.27
1979	2041.86	1695.8	1539.39	444.28	106.7	93.47	178.59	173.29	123.26	98.71	71.96	196.32
1980	1613.05	1462.12	1160.53	700.04	114.82	54.56	63.1	126.31	122.56	87.18	69.82	189.74
1981	2522.06	1153.98	989.03	473.62	142.06	54.17	36.29	44.46	88.99	86.35	61.42	182.86
1982	2933.83	1799.01	752.74	287.99	45.22	52.14	34.4	25.26	30.95	61.94	60.1	170.04
1983	1674.35	2103.39	1249.81	393.64	101.69	25.65	35.88	24.45	17.96	22	44.03	163.58
1984	817.09	1201.93	1484.37	756.18	192.51	64.3	18.01	25.64	17.47	12.83	15.72	148.34
1985	1939.89	586.55	848.22	898.22	369.94	121.75	45.15	12.87	18.32	12.48	9.17	117.22
1986	3007.03	1393.55	417.65	557.7	528.94	248.86	86.46	32.35	9.22	13.13	8.95	90.57
1987	4342.88	2160.85	996.23	284.93	356.65	365.73	177.63	62.04	23.22	6.62	9.42	71.41
1988	3093.21	3120.52	1543.2	673.32	178.45	244.9	260.71	127.42	44.51	16.65	4.75	57.98
1989	2018.62	2219.48	2190.21	887.6	294.08	108.67	170.75	185.94	90.88	31.74	11.88	44.74
1990	1104.95	1448.7	1561.36	1286.81	406.53	181.95	75.99	121.87	132.72	64.86	22.66	40.41
1991	1904.37	792.86	1017.15	900.88	566.02	248.16	126.92	54.21	86.93	94.67	46.27	44.99
1992	2139.39	1367.15	560.02	620.47	448.73	360.12	174.43	90.71	38.74	62.13	67.66	65.22
1993	1603.98	1536.58	971.18	360.24	347.96	296.99	254.97	124.9	64.95	27.74	44.49	95.15
1994	2111.59	1151.52	1085.56	593.62	180.24	221.71	208.81	182.25	89.28	46.43	19.83	99.81
1995	4290.97	1514.89	806.62	612.94	248.79	108.27	154.19	148.83	129.9	63.63	33.09	85.27
1996	2364.22	3059.44	982.77	223.22	52.23	87.92	68.27	107.13	103.41	90.25	44.21	82.24
1997	2701.34	1674.94	1833.52	130.17	3.67	10.67	50.1	46.2	72.5	69.98	61.08	85.58
1998	2084.76	1897	899.95	88.02	0.22	0.35	5.29	32.7	30.15	47.32	45.67	95.72
1999	4921.81	1449.54	901.09	13.74	0.01	0.01	0.15	3.31	20.49	18.89	29.65	88.58
2000	2202.23	3506.19	930.35	225.7	0.94	0	0.01	0.1	2.29	14.18	13.08	81.85
2001	1610.53	1571.43	2297.23	282.26	23.62	0.35	0	0	0.07	1.6	9.89	66.18
2002	1232.05	1131.94	853.19	121.51	0.6	2.44	0.18	0	0	0.05	1.05	49.81
2003	326.8	882.8	729.71	339.32	44.66	0.29	1.64	0.13	0	0	0.03	36
2004	2093.12	234.1	564.76	278.38	118.99	21.08	0.19	1.16	0.09	0	0	25.48
2005	1748.61	1499.34	149.45	213	96.36	55.72	14.11	0.14	0.82	0.06	0	18.01
2006	885.85	1254.56	1008.43	74.83	101.63	54.47	38.49	10.05	0.1	0.58	0.04	12.83
2007	158.1	633.56	761.08	288.36	18.93	39.59	35.36	27.01	7.05	0.07	0.41	9.03
2008	257.17	113.05	382.18	211.03	70.44	7.22	25.62	24.8	18.94	4.94	0.05	6.62
2009	2775.09	183.91	68.34	107.22	52.24	27.1	4.68	17.97	17.39	13.28	3.47	4.68
2010	1062.39	1984.22	110.6	18.64	25.71	19.72	17.5	3.28	12.6	12.19	9.31	5.71
2011	530.92	762.82	1368.91	63.57	10.4	15.93	13.83	12.51	2.34	9	8.71	10.74
2012	397.92	379.44	452.24	345.48	13.96	3.73	10.2	9.68	8.75	1.64	6.3	13.61
2013	348.6	284.93	239.43	160.12	111.33	6.27	2.48	7.2	6.83	6.17	1.16	14.05
2014	560	250.05	190.37	115.62	73.34	61.44	4.31	1.76	5.12	4.86	4.39	10.82
2015	506.93	401.46	163.83	82.67	46.95	37.71	41.77	3.06	1.25	3.63	3.45	10.79
2016	1947.41	364.09	279.57	99.07	48.86	30.09	26.6	29.9	2.19	0.9	2.6	10.19
2017	4008.36	1399.36	257.67	184.54	64.66	33.19	21.43	19.08	21.44	1.57	0.64	9.17
2018	3646.11	2881.14	999.68	178.98	127.6	45.44	23.77	15.39	13.71	15.4	1.13	7.05
2019	1068.62	2619.66	2029.98	644.18	113.67	85.3	32.27	17.04	11.03	9.82	11.04	5.86
2020	586.02	767.7	1839.38	1283.74	400.48	75.04	60.46	23.12	12.21	7.91	7.04	12.11
2021	800.81	421.08	542.5	1204.44	830.23	270.59	53.39	43.36	16.58	8.76	5.67	13.74
2022	1169.61	575.42	297.59	355.4	779.35	561.12	192.54	38.29	31.1	11.89	6.28	13.92

Table A10.31. Estimated total fishing mortality at age (Model h1_1.02; single-stock hypothesis).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	0	0.002	0.004	0.01	0.022	0.029	0.017	0.009	0.005	0.005	0.005	0.005
1971	0.001	0.003	0.007	0.016	0.034	0.044	0.027	0.013	0.008	0.008	0.008	0.008
1972	0.001	0.003	0.007	0.014	0.021	0.024	0.015	0.009	0.006	0.006	0.006	0.006
1973	0.001	0.005	0.013	0.026	0.033	0.036	0.022	0.013	0.009	0.009	0.009	0.009
1974	0.002	0.008	0.025	0.056	0.068	0.074	0.045	0.025	0.018	0.017	0.017	0.017
1975	0.002	0.009	0.023	0.048	0.082	0.098	0.06	0.032	0.021	0.02	0.02	0.02
1976	0.003	0.014	0.035	0.074	0.119	0.14	0.085	0.046	0.03	0.03	0.03	0.03
1977	0.011	0.034	0.113	0.247	0.211	0.184	0.113	0.073	0.057	0.056	0.056	0.056
1978	0.011	0.042	0.123	0.262	0.305	0.319	0.2	0.122	0.093	0.091	0.091	0.091
1979	0.013	0.045	0.124	0.255	0.311	0.34	0.251	0.205	0.197	0.195	0.195	0.195
1980	0.013	0.048	0.129	0.257	0.285	0.298	0.233	0.208	0.209	0.207	0.207	0.207
1981	0.017	0.079	0.207	0.361	0.429	0.457	0.363	0.326	0.328	0.323	0.323	0.323
1982	0.024	0.104	0.236	0.434	0.687	0.837	0.688	0.632	0.646	0.639	0.639	0.639
1983	0.024	0.081	0.176	0.303	0.419	0.534	0.607	0.732	0.828	0.823	0.823	0.823
1984	0.039	0.139	0.197	0.37	0.68	0.937	0.98	1.059	1.128	1.122	1.122	1.122
1985	0.03	0.104	0.178	0.318	0.546	0.723	0.763	0.809	0.836	0.831	0.831	0.831
1986	0.022	0.059	0.128	0.216	0.385	0.557	0.586	0.634	0.666	0.666	0.666	0.666
1987	0.029	0.1	0.124	0.197	0.382	0.585	0.61	0.632	0.663	0.681	0.681	0.681
1988	0.035	0.096	0.148	0.183	0.26	0.392	0.518	0.626	0.718	0.778	0.778	0.778
1989	0.025	0.071	0.162	0.211	0.227	0.295	0.423	0.587	0.75	0.86	0.86	0.86
1990	0.021	0.047	0.1	0.185	0.25	0.325	0.43	0.538	0.703	0.832	0.832	0.832
1991	0.022	0.055	0.091	0.155	0.252	0.383	0.541	0.708	0.845	0.915	0.915	0.915
1992	0.021	0.062	0.106	0.153	0.2	0.352	0.615	1.033	1.248	1.097	1.097	1.097
1993	0.035	0.112	0.152	0.198	0.243	0.302	0.503	0.942	1.27	1.205	1.205	1.205
1994	0.034	0.107	0.198	0.275	0.353	0.458	0.762	1.137	1.363	1.38	1.38	1.38
1995	0.048	0.246	0.438	0.561	0.638	0.667	0.951	1.315	1.641	1.804	1.804	1.804
1996	0.083	0.354	0.63	0.716	0.709	0.761	0.956	1.216	1.476	1.63	1.63	1.63
1997	0.08	0.533	0.908	0.791	0.656	0.711	0.941	1.201	1.45	1.585	1.585	1.585
1998	0.058	0.431	0.589	0.458	0.367	0.4	0.529	0.688	0.847	0.954	0.954	0.954
1999	0.054	0.269	0.319	0.258	0.208	0.216	0.284	0.385	0.501	0.589	0.589	0.589
2000	0.046	0.205	0.307	0.217	0.157	0.152	0.188	0.249	0.31	0.354	0.354	0.354
2001	0.078	0.27	0.496	0.328	0.227	0.214	0.255	0.321	0.38	0.41	0.41	0.41
2002	0.043	0.165	0.243	0.258	0.224	0.222	0.272	0.345	0.401	0.421	0.421	0.421
2003	0.053	0.175	0.232	0.263	0.225	0.215	0.257	0.33	0.384	0.403	0.403	0.403
2004	0.052	0.177	0.246	0.294	0.263	0.25	0.289	0.346	0.391	0.408	0.408	0.408
2005	0.069	0.155	0.222	0.321	0.313	0.283	0.309	0.355	0.381	0.384	0.384	0.384
2006	0.072	0.201	0.273	0.352	0.433	0.403	0.434	0.465	0.45	0.408	0.408	0.408
2007	0.125	0.283	0.375	0.412	0.488	0.559	0.6	0.649	0.583	0.501	0.501	0.501
2008	0.181	0.364	0.407	0.498	0.544	0.557	0.553	0.571	0.531	0.458	0.458	0.458
2009	0.103	0.331	0.416	0.69	0.818	0.823	0.777	0.718	0.604	0.523	0.523	0.523
2010	0.121	0.296	0.316	0.425	0.521	0.5	0.577	0.478	0.349	0.297	0.297	0.297
2011	0.054	0.092	0.33	0.321	0.367	0.329	0.351	0.247	0.19	0.161	0.161	0.161
2012	0.02	0.052	0.178	0.238	0.291	0.228	0.182	0.146	0.128	0.12	0.12	0.12
2013	0.021	0.058	0.125	0.19	0.15	0.133	0.135	0.133	0.133	0.133	0.133	0.133
2014	0.02	0.051	0.113	0.147	0.139	0.125	0.128	0.15	0.167	0.174	0.174	0.174
2015	0.016	0.066	0.086	0.098	0.121	0.129	0.133	0.169	0.218	0.24	0.24	0.24
2016	0.007	0.035	0.07	0.106	0.129	0.131	0.13	0.148	0.184	0.207	0.207	0.207
2017	0.009	0.027	0.048	0.076	0.126	0.152	0.159	0.17	0.186	0.194	0.194	0.194
2018	0.006	0.016	0.046	0.073	0.111	0.144	0.169	0.182	0.186	0.188	0.188	0.188
2019	0.004	0.011	0.036	0.058	0.103	0.134	0.174	0.189	0.175	0.163	0.163	0.163
2020	0.003	0.009	0.019	0.04	0.068	0.125	0.165	0.188	0.164	0.142	0.142	0.142
2021	0.006	0.013	0.023	0.034	0.055	0.089	0.143	0.174	0.183	0.168	0.168	0.168
2022	0.008	0.018	0.023	0.042	0.063	0.084	0.125	0.166	0.184	0.179	0.179	0.179

Table A10.32. Estimated total fishing mortality at age (Model *h2_1.02*; two-stock hypothesis; southern stock).

Year	Age group (years)											
	1	2	3	4	5	6	7	8	9	10	11	12
1970	0.000361	0.00206	0.00515	0.0115	0.0241	0.0283	0.0161	0.0082	0.00524	0.0052	0.0052	0.0052
1971	0.000552	0.00315	0.00788	0.0176	0.0366	0.043	0.0245	0.0124	0.00791	0.00785	0.00785	0.00785
1972	0.000455	0.00279	0.00649	0.0121	0.0206	0.0226	0.0133	0.0075	0.0054	0.00531	0.00531	0.00531
1973	0.000728	0.00463	0.0106	0.0189	0.0301	0.0322	0.0187	0.0102	0.00699	0.00682	0.00682	0.00682
1974	0.000942	0.00558	0.0136	0.0283	0.0549	0.0632	0.0361	0.0186	0.012	0.0119	0.0119	0.0119
1975	0.00155	0.00947	0.0225	0.0441	0.08	0.0899	0.0516	0.027	0.0177	0.0174	0.0174	0.0174
1976	0.00238	0.0148	0.0346	0.0657	0.114	0.127	0.073	0.0385	0.0256	0.0251	0.0251	0.0251
1977	0.00285	0.0181	0.0415	0.0744	0.119	0.128	0.0744	0.0404	0.0276	0.0269	0.0269	0.0269
1978	0.005	0.0305	0.0707	0.131	0.221	0.243	0.144	0.0834	0.0621	0.0611	0.0611	0.0611
1979	0.00676	0.0359	0.0806	0.142	0.224	0.25	0.181	0.156	0.161	0.16	0.16	0.16
1980	0.00693	0.0369	0.0811	0.135	0.193	0.21	0.163	0.155	0.168	0.166	0.166	0.166
1981	0.0128	0.0714	0.155	0.246	0.321	0.332	0.26	0.248	0.268	0.265	0.265	0.265
1982	0.0207	0.103	0.227	0.382	0.568	0.633	0.51	0.503	0.553	0.549	0.549	0.549
1983	0.0204	0.0801	0.165	0.258	0.341	0.407	0.476	0.638	0.778	0.775	0.775	0.775
1984	0.0346	0.133	0.179	0.327	0.606	0.789	0.848	1.03	1.2	1.19	1.19	1.19
1985	0.0294	0.0988	0.171	0.308	0.529	0.665	0.727	0.869	0.974	0.972	0.972	0.972
1986	0.0226	0.0593	0.121	0.208	0.393	0.55	0.596	0.722	0.815	0.817	0.817	0.817
1987	0.0306	0.101	0.119	0.187	0.376	0.584	0.616	0.682	0.752	0.768	0.768	0.768
1988	0.0374	0.0965	0.135	0.16	0.237	0.378	0.517	0.645	0.754	0.806	0.806	0.806
1989	0.0262	0.0714	0.156	0.188	0.206	0.282	0.418	0.595	0.763	0.857	0.857	0.857
1990	0.0211	0.0459	0.0927	0.157	0.227	0.311	0.419	0.537	0.706	0.814	0.814	0.814
1991	0.0221	0.0544	0.0848	0.136	0.233	0.363	0.523	0.686	0.816	0.866	0.866	0.866
1992	0.0223	0.0633	0.102	0.143	0.193	0.334	0.58	0.98	1.17	1.01	1.01	1.01
1993	0.0368	0.114	0.14	0.183	0.236	0.296	0.479	0.878	1.17	1.09	1.09	1.09
1994	0.0367	0.11	0.184	0.25	0.337	0.458	0.76	1.09	1.27	1.26	1.26	1.26
1995	0.0535	0.258	0.375	0.479	0.589	0.633	0.92	1.26	1.54	1.67	1.67	1.67
1996	0.0944	0.401	0.544	0.588	0.613	0.679	0.869	1.12	1.38	1.53	1.53	1.53
1997	0.0866	0.547	0.656	0.557	0.498	0.565	0.776	1.03	1.29	1.46	1.46	1.46
1998	0.0594	0.417	0.36	0.296	0.254	0.289	0.397	0.543	0.717	0.857	0.857	0.857
1999	0.0606	0.275	0.241	0.196	0.159	0.164	0.218	0.308	0.433	0.551	0.551	0.551
2000	0.0487	0.215	0.227	0.17	0.125	0.121	0.153	0.211	0.281	0.343	0.343	0.343
2001	0.0756	0.234	0.273	0.222	0.167	0.163	0.201	0.266	0.335	0.382	0.382	0.382
2002	0.0422	0.158	0.203	0.221	0.192	0.192	0.237	0.311	0.378	0.416	0.416	0.416
2003	0.051	0.159	0.193	0.22	0.192	0.185	0.225	0.297	0.362	0.397	0.397	0.397
2004	0.0563	0.164	0.208	0.25	0.23	0.223	0.263	0.325	0.382	0.414	0.414	0.414
2005	0.0823	0.168	0.205	0.285	0.281	0.258	0.289	0.342	0.383	0.401	0.401	0.401
2006	0.0788	0.2	0.201	0.288	0.369	0.356	0.401	0.446	0.451	0.424	0.424	0.424
2007	0.129	0.294	0.29	0.329	0.425	0.491	0.542	0.61	0.573	0.511	0.511	0.511
2008	0.194	0.347	0.322	0.419	0.495	0.505	0.496	0.52	0.505	0.455	0.455	0.455
2009	0.135	0.346	0.378	0.618	0.773	0.777	0.711	0.638	0.553	0.502	0.502	0.502
2010	0.167	0.442	0.363	0.429	0.51	0.499	0.577	0.458	0.337	0.298	0.298	0.298
2011	0.061	0.0782	0.113	0.23	0.316	0.313	0.349	0.231	0.164	0.138	0.138	0.138
2012	0.0192	0.0446	0.1	0.188	0.283	0.222	0.18	0.139	0.114	0.104	0.104	0.104
2013	0.0201	0.0551	0.106	0.179	0.18	0.149	0.142	0.131	0.121	0.114	0.114	0.114
2014	0.0192	0.0436	0.0743	0.115	0.158	0.159	0.147	0.154	0.155	0.148	0.148	0.148
2015	0.016	0.0587	0.0676	0.0873	0.127	0.157	0.168	0.189	0.211	0.208	0.208	0.208
2016	0.00829	0.0334	0.0591	0.0941	0.124	0.142	0.155	0.174	0.186	0.186	0.186	0.186
2017	0.0124	0.0308	0.0458	0.0702	0.119	0.152	0.174	0.194	0.202	0.19	0.19	0.19
2018	0.0076	0.0171	0.0398	0.0659	0.101	0.134	0.167	0.194	0.203	0.194	0.194	0.194
2019	0.00436	0.0102	0.0241	0.0505	0.0953	0.12	0.158	0.182	0.179	0.17	0.17	0.17
2020	0.00315	0.00811	0.0146	0.0319	0.072	0.119	0.146	0.167	0.154	0.142	0.142	0.142
2021	0.00567	0.0132	0.0224	0.0301	0.0628	0.102	0.134	0.153	0.169	0.168	0.168	0.168
2022	0.00781	0.0177	0.0218	0.0356	0.0649	0.0997	0.128	0.15	0.168	0.174	0.174	0.174

Table A10.33. Estimated total fishing mortality at age (Model *h2_1.02*; two-stock hypothesis; far north stock).

Age group (years)												
Year	1	2	3	4	5	6	7	8	9	10	11	12
1970	2.2e-05	0.000273	0.00254	0.00567	0.0189	0.000349	9.07e-05	9.07e-05	9.07e-05	9.07e-05	9.07e-05	9.07e-05
1971	4.32e-05	0.000536	0.00498	0.0111	0.00371	0.000685	0.000178	0.000178	0.000178	0.000178	0.000178	0.000178
1972	0.000103	0.00128	0.0119	0.0266	0.00887	0.00164	0.000426	0.000426	0.000426	0.000426	0.000426	0.000426
1973	0.000225	0.00279	0.026	0.058	0.0193	0.00357	0.000928	0.000928	0.000928	0.000928	0.000928	0.000928
1974	0.000729	0.00905	0.0841	0.188	0.0626	0.0116	0.00301	0.00301	0.00301	0.00301	0.00301	0.00301
1975	0.000227	0.00282	0.0262	0.0585	0.0195	0.0036	0.000936	0.000936	0.000936	0.000936	0.000936	0.000936
1976	0.000302	0.00375	0.0349	0.0779	0.0259	0.00479	0.00125	0.00125	0.00125	0.00125	0.00125	0.00125
1977	0.00416	0.0516	0.48	1.07	0.357	0.0659	0.0171	0.0171	0.0171	0.0171	0.0171	0.0171
1978	0.0048	0.0595	0.553	1.24	0.411	0.076	0.0198	0.0198	0.0198	0.0198	0.0198	0.0198
1979	0.00397	0.0493	0.458	1.02	0.341	0.0629	0.0164	0.0164	0.0164	0.0164	0.0164	0.0164
1980	0.00491	0.0609	0.566	1.26	0.421	0.0778	0.0202	0.0202	0.0202	0.0202	0.0202	0.0202
1981	0.00784	0.0972	0.904	2.02	0.672	0.124	0.0323	0.0323	0.0323	0.0323	0.0323	0.0323
1982	0.00276	0.0342	0.318	0.711	0.237	0.0437	0.0114	0.0114	0.0114	0.0114	0.0114	0.0114
1983	0.0015	0.0186	0.172	0.385	0.128	0.0237	0.00616	0.00616	0.00616	0.00616	0.00616	0.00616
1984	0.00149	0.0185	0.172	0.385	0.128	0.0237	0.00616	0.00616	0.00616	0.00616	0.00616	0.00616
1985	0.000775	0.00961	0.0893	0.2	0.0664	0.0123	0.00319	0.00319	0.00319	0.00319	0.00319	0.00319
1986	0.000454	0.00564	0.0524	0.117	0.039	0.0072	0.00187	0.00187	0.00187	0.00187	0.00187	0.00187
1987	0.000536	0.00664	0.0618	0.138	0.0459	0.00848	0.00221	0.00221	0.00221	0.00221	0.00221	0.00221
1988	0.00193	0.024	0.223	0.498	0.166	0.0306	0.00797	0.00797	0.00797	0.00797	0.00797	0.00797
1989	0.00175	0.0217	0.202	0.451	0.15	0.0277	0.00721	0.00721	0.00721	0.00721	0.00721	0.00721
1990	0.00191	0.0237	0.22	0.491	0.164	0.0302	0.00786	0.00786	0.00786	0.00786	0.00786	0.00786
1991	0.00142	0.0177	0.164	0.367	0.122	0.0226	0.00587	0.00587	0.00587	0.00587	0.00587	0.00587
1992	0.000964	0.012	0.111	0.248	0.0827	0.0153	0.00397	0.00397	0.00397	0.00397	0.00397	0.00397
1993	0.00141	0.0175	0.162	0.362	0.121	0.0223	0.0058	0.0058	0.0058	0.0058	0.0058	0.0058
1994	0.0021	0.026	0.242	0.54	0.18	0.0332	0.00863	0.00863	0.00863	0.00863	0.00863	0.00863
1995	0.00828	0.103	0.955	2.13	0.71	0.131	0.0341	0.0341	0.0341	0.0341	0.0341	0.0341
1996	0.0147	0.182	1.69	3.78	1.26	0.232	0.0604	0.0604	0.0604	0.0604	0.0604	0.0604
1997	0.0235	0.291	2.71	6.05	2.01	0.372	0.0967	0.0967	0.0967	0.0967	0.0967	0.0967
1998	0.0334	0.414	3.85	8.6	2.87	0.529	0.138	0.138	0.138	0.138	0.138	0.138
1999	0.00915	0.113	1.05	2.36	0.784	0.145	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377
2000	0.00748	0.0928	0.863	1.93	0.642	0.119	0.0308	0.0308	0.0308	0.0308	0.0308	0.0308
2001	0.0226	0.281	2.61	5.83	1.94	0.358	0.0932	0.0932	0.0932	0.0932	0.0932	0.0932
2002	0.00333	0.109	0.592	0.671	0.393	0.0655	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155
2003	0.00357	0.117	0.634	0.718	0.421	0.0701	0.0166	0.0166	0.0166	0.0166	0.0166	0.0166
2004	0.00363	0.119	0.645	0.731	0.429	0.0713	0.0169	0.0169	0.0169	0.0169	0.0169	0.0169
2005	0.00204	0.0666	0.362	0.41	0.24	0.04	0.00947	0.00947	0.00947	0.00947	0.00947	0.00947
2006	0.00519	0.17	0.922	1.04	0.613	0.102	0.0241	0.0241	0.0241	0.0241	0.0241	0.0241
2007	0.00537	0.175	0.953	1.08	0.633	0.105	0.0249	0.0249	0.0249	0.0249	0.0249	0.0249
2008	0.0053	0.173	0.941	1.07	0.625	0.104	0.0246	0.0246	0.0246	0.0246	0.0246	0.0246
2009	0.00546	0.179	0.969	1.1	0.644	0.107	0.0254	0.0254	0.0254	0.0254	0.0254	0.0254
2010	0.00126	0.0412	0.224	0.254	0.149	0.0247	0.00586	0.00586	0.00586	0.00586	0.00586	0.00586
2011	0.00589	0.193	1.05	1.19	0.696	0.116	0.0274	0.0274	0.0274	0.0274	0.0274	0.0274
2012	0.00399	0.13	0.708	0.802	0.471	0.0783	0.0185	0.0185	0.0185	0.0185	0.0185	0.0185
2013	0.00224	0.0733	0.398	0.451	0.264	0.044	0.0104	0.0104	0.0104	0.0104	0.0104	0.0104
2014	0.00284	0.0928	0.504	0.571	0.335	0.0558	0.0132	0.0132	0.0132	0.0132	0.0132	0.0132
2015	0.000974	0.0319	0.173	0.196	0.115	0.0191	0.00453	0.00453	0.00453	0.00453	0.00453	0.00453
2016	0.000481	0.0157	0.0854	0.0967	0.0567	0.00944	0.00223	0.00223	0.00223	0.00223	0.00223	0.00223
2017	0.000194	0.00633	0.0344	0.039	0.0229	0.0038	9e-04	9e-04	9e-04	9e-04	9e-04	9e-04
2018	0.000616	0.0202	0.109	0.124	0.0727	0.0121	0.00287	0.00287	0.00287	0.00287	0.00287	0.00287
2019	0.000722	0.0236	0.128	0.145	0.0852	0.0142	0.00336	0.00336	0.00336	0.00336	0.00336	0.00336
2020	0.000526	0.0172	0.0934	0.106	0.0621	0.0103	0.00244	0.00244	0.00244	0.00244	0.00244	0.00244
2021	0.000523	0.0171	0.093	0.105	0.0618	0.0103	0.00243	0.00243	0.00243	0.00243	0.00243	0.00243
2022	0.00135	0.0442	0.24	0.272	0.16	0.0265	0.00628	0.00628	0.00628	0.00628	0.00628	0.00628

Table A10.34. Summary of results for Model *h1_1.02* (single-stock hypothesis). Note that MSY values are a function of time-varying selectivity and average weight.

Year	Landings ('000 t)	SSB ('000 t)	Recruitment (age 1, millions)	Fishing Mortality (mean over ages 1-12)	F _{MSY}	SSB _{MSY} ('000 t)
1970	118	14378	5772	0.01	0.2	7095
1971	169	13372	5378	0.01	0.2	7065
1972	111	12456	4959	0.01	0.18	7063
1973	165	11541	4433	0.02	0.18	6978
1974	324	10560	4500	0.03	0.18	6952
1975	300	9742	5846	0.04	0.19	7023
1976	397	9136	7301	0.05	0.19	6970
1977	848	8711	10829	0.1	0.16	7162
1978	1025	8562	13584	0.15	0.17	7086
1979	1302	8470	14113	0.19	0.2	7288
1980	1316	8560	14697	0.19	0.2	7327
1981	1945	8423	17152	0.29	0.2	7364
1982	2372	8033	19828	0.52	0.23	7669
1983	1870	9078	27564	0.51	0.27	8050
1984	2687	9507	20854	0.74	0.27	7948
1985	2371	10080	24766	0.57	0.27	7745
1986	2073	13579	55243	0.44	0.29	7755
1987	2680	18078	51807	0.45	0.27	7859
1988	3246	19862	25731	0.44	0.3	7994
1989	3582	18745	15290	0.44	0.34	7790
1990	3715	17271	17285	0.42	0.38	7615
1991	3778	16133	22672	0.48	0.44	7232
1992	3362	15260	25306	0.59	0.44	7998
1993	3371	13700	14501	0.61	0.32	8907
1994	4276	11132	15774	0.74	0.34	8248
1995	4956	8161	14854	0.99	0.25	8617
1996	4380	6003	15056	0.98	0.22	8349
1997	3598	4719	17643	1	0.2	8159
1998	2027	4814	17300	0.6	0.18	8752
1999	1424	5956	22026	0.36	0.19	8545
2000	1540	7308	20679	0.24	0.17	8081
2001	2528	7759	20571	0.32	0.16	7952
2002	1750	8442	18555	0.29	0.19	8268
2003	1797	8463	11287	0.28	0.18	8262
2004	1934	7815	10172	0.29	0.19	7781
2005	1755	7188	10989	0.3	0.19	7657
2006	2020	6049	6273	0.36	0.19	7517
2007	1997	4241	2127	0.46	0.19	7418
2008	1473	2986	5786	0.47	0.17	7524
2009	1283	2465	9198	0.57	0.19	7216
2010	727	2413	5379	0.37	0.16	7614
2011	635	2373	4433	0.23	0.16	7321
2012	455	2458	4015	0.15	0.17	7399
2013	353	2659	4332	0.12	0.17	7699
2014	411	3127	7372	0.13	0.19	7797
2015	394	3767	7735	0.15	0.24	7544
2016	389	4857	13846	0.13	0.25	7602
2017	405	6867	21923	0.13	0.25	7982
2018	526	9747	27909	0.12	0.24	8455
2019	632	12041	16711	0.11	0.28	7860
2020	707	12802	6826	0.1	0.31	8083
2021	808	13547	15997	0.1	0.36	7712
2022	929	14289	9710	0.1	0.36	7453

Table A10.35. Summary of results for Model *h2_1.02* (two-stock hypothesis; southern stock). Note that MSY values are a function of time-varying selectivity and average weight.

Year	Landings ('000 t)	SSB ('000 t)	Recruitment (age 1, millions)	Fishing Mortality (mean over ages 1-12)	F_{MSY}	SSB_{MSY} ('000 t)	
1970	118	13851	5888		0.01	0.19	6215
1971	169	12985	5480		0.01	0.19	6211
1972	111	12191	5065		0.01	0.18	6181
1973	165	11388	4508		0.01	0.18	6114
1974	324	10535	4410		0.02	0.19	6180
1975	300	9766	5600		0.03	0.18	6153
1976	397	9181	7051		0.05	0.18	6138
1977	848	8950	9490		0.05	0.18	6115
1978	1025	8892	12156		0.1	0.18	6202
1979	1302	8824	12788		0.14	0.21	6585
1980	1316	8973	13296		0.14	0.21	6665
1981	1945	8825	14760		0.23	0.2	6630
1982	2372	8048	16121		0.43	0.22	6797
1983	1870	8817	27246		0.46	0.27	7245
1984	2687	9441	22956		0.73	0.28	7239
1985	2371	10146	24040		0.61	0.28	6998
1986	2073	13604	55124		0.49	0.31	6966
1987	2680	17988	50004		0.48	0.28	7027
1988	3246	19603	22569		0.45	0.3	7126
1989	3582	18341	13072		0.44	0.34	6937
1990	3715	16981	17439		0.41	0.38	6769
1991	3778	15951	21837		0.46	0.44	6431
1992	3362	14980	23918		0.55	0.41	7135
1993	3371	13381	14379		0.57	0.31	7857
1994	4276	10860	14674		0.69	0.33	7283
1995	4956	7930	11531		0.93	0.25	7663
1996	4380	5790	13400		0.91	0.22	7389
1997	3598	4686	14557		0.87	0.21	7305
1998	2027	4844	15230		0.49	0.18	7912
1999	1424	5695	17217		0.31	0.18	7612
2000	1540	6880	19271		0.21	0.18	7174
2001	2528	7828	19864		0.26	0.17	7199
2002	1750	8654	18409		0.27	0.19	7346
2003	1797	8858	12033		0.26	0.19	7375
2004	1934	8140	7346		0.28	0.2	6904
2005	1755	7170	8384		0.29	0.19	6800
2006	2020	5939	5301		0.34	0.2	6775
2007	1997	4271	2436		0.43	0.19	6647
2008	1473	3130	5876		0.43	0.17	6706
2009	1283	2305	5039		0.54	0.18	6387
2010	727	1893	3832		0.39	0.15	6683
2011	635	1933	4056		0.19	0.17	6678
2012	455	2157	4184		0.13	0.17	6654
2013	353	2464	4890		0.12	0.17	6693
2014	411	3057	8193		0.12	0.2	6716
2015	394	3824	8491		0.14	0.24	6596
2016	389	4794	11306		0.13	0.25	6627
2017	405	6140	14976		0.13	0.25	7043
2018	526	8257	22888		0.13	0.25	7590
2019	632	10307	16004		0.11	0.28	7244
2020	707	11149	6818		0.1	0.29	7427
2021	808	11927	15853		0.1	0.34	6892
2022	929	12681	9467		0.1	0.33	6859

Table A10.36. Summary of results for Model *h2_1.05* (two-stock hypothesis; far north stock). Note that MSY values are a function of time-varying selectivity and average weight.

Year	Landings (‘000 t)	SSB (‘000 t)	Recruitment (age 1, millions)	Fishing Mortality (mean over ages 1-12)	F _{MSY}	SSB _{MSY} (‘000 t)
1970	118	3030	2292	0	0.1	958
1971	169	3011	2277	0	0.1	958
1972	111	2998	2258	0	0.1	968
1973	165	2971	2233	0.01	0.1	960
1974	324	2878	2229	0.03	0.1	959
1975	300	2828	2229	0.01	0.1	962
1976	397	2794	2189	0.01	0.1	953
1977	848	2397	3174	0.18	0.1	961
1978	1025	2029	2370	0.2	0.1	963
1979	1302	1807	2042	0.17	0.1	958
1980	1316	1490	1613	0.21	0.1	957
1981	1945	1125	2522	0.33	0.1	953
1982	2372	1014	2934	0.12	0.1	955
1983	1870	1093	1674	0.06	0.1	946
1984	2687	1189	817	0.06	0.1	951
1985	2371	1231	1940	0.03	0.1	955
1986	2073	1271	3007	0.02	0.1	953
1987	2680	1428	4343	0.02	0.1	959
1988	3246	1593	3093	0.08	0.1	956
1989	3582	1781	2019	0.07	0.1	953
1990	3715	1788	1105	0.08	0.1	953
1991	3778	1732	1904	0.06	0.1	954
1992	3362	1681	2139	0.04	0.1	954
1993	3371	1675	1604	0.06	0.1	957
1994	4276	1608	2112	0.09	0.1	962
1995	4956	1231	4291	0.35	0.1	957
1996	4380	975	2364	0.63	0.1	957
1997	3598	689	2701	1	0.1	948
1998	2027	467	2085	1.43	0.1	950
1999	1424	440	4922	0.39	0.15	267
2000	1540	481	2202	0.32	0.15	270
2001	2528	270	1611	0.97	0.15	271
2002	1750	307	1232	0.16	0.14	276
2003	1797	317	327	0.17	0.14	274
2004	1934	281	2093	0.17	0.14	274
2005	1755	300	1749	0.1	0.14	276
2006	2020	340	886	0.25	0.14	276
2007	1997	301	158	0.26	0.14	275
2008	1473	226	257	0.26	0.14	276
2009	1283	164	2775	0.26	0.14	275
2010	727	230	1062	0.06	0.14	273
2011	635	285	531	0.28	0.14	283
2012	455	241	398	0.19	0.14	281
2013	353	226	349	0.11	0.14	281
2014	411	209	560	0.14	0.14	281
2015	394	224	507	0.05	0.14	280
2016	389	269	1947	0.02	0.14	280
2017	405	365	4008	0.01	0.14	280
2018	526	632	3646	0.03	0.14	280
2019	632	1060	1069	0.03	0.14	280
2020	707	1419	586	0.03	0.14	280
2021	808	1529	801	0.03	0.14	280
2022	929	1462	1170	0.07	0.14	280

Table A10.37. Summary results for the short, medium, and long-term predictions for Model *h1_1.02.ls* (single-stock hypothesis, low steepness, short timeseries). Note that “B” in all cases represents thousands of tonnes of spawning stock biomass, “P” represents probability as a percentage and B_{MSY} is taken to be the average B_{MSY} estimated over the last ten years.

F	B ₂₀₂₄	P(B ₂₀₂₄ >B _{MSY})	B ₂₀₂₈	P(B ₂₀₂₈ >B _{MSY})	B ₂₀₃₂	P(B ₂₀₃₂ >B _{MSY})	Catch 2023 (kt)	Catch 2024 (kt)
0	16447	100	17978	100	17868	100	0	0
0.75 × F ₂₀₂₁	14813	100	13485	100	12541	97	764	844
F ₂₀₂₁	14323	100	12409	99	11404	96	1006	1083
1.25 × F ₂₀₂₁	13856	100	11484	98	10462	93	1243	1305
F _{MSY}	10568	100	6908	68	6112	53	3120	2659

Table A10.38. Summary results for the short, medium, and long-term predictions for Model *h2_1.02.ls* (two-stock hypothesis). Note that “B” in all cases represents thousands of tonnes of spawning stock biomass, “P” represents probability as a percentage, and B_{MSY} is estimated dynamically within the model.

Southern Stock:

F	B ₂₀₂₄	P(B ₂₀₂₄ >B _{MSY})	B ₂₀₂₈	P(B ₂₀₂₈ >B _{MSY})	B ₂₀₃₂	P(B ₂₀₃₂ >B _{MSY})	Catch 2023 (kt)	Catch 2024 (kt)
0	14976	100	16498	100	16371	100	0	0
0.75 × F ₂₀₂₁	13556	100	12531	99	11594	98	645	705
F ₂₀₂₁	13128	100	11563	99	10558	96	849	905
1.25 × F ₂₀₂₁	12721	100	10724	98	9696	93	1048	1091
F _{MSY}	9994	100	6680	74	5865	58	2528	2175

Far North Stock:

F	B ₂₀₂₄	P(B ₂₀₂₄ >B _{MSY})	B ₂₀₂₈	P(B ₂₀₂₈ >B _{MSY})	B ₂₀₃₂	P(B ₂₀₃₂ >B _{MSY})	Catch 2023 (kt)	Catch 2024 (kt)
0	1460	100	1374	100	1290	99	0	0
0.75 × F ₂₀₂₁	1352	99	1031	95	840	82	72	72
F ₂₀₂₁	1321	99	947	92	734	67	94	91
1.25 × F ₂₀₂₁	1292	99	874	86	644	49	116	108
F _{MSY}	1202	99	682	59	417	1	187	154

9. Figures

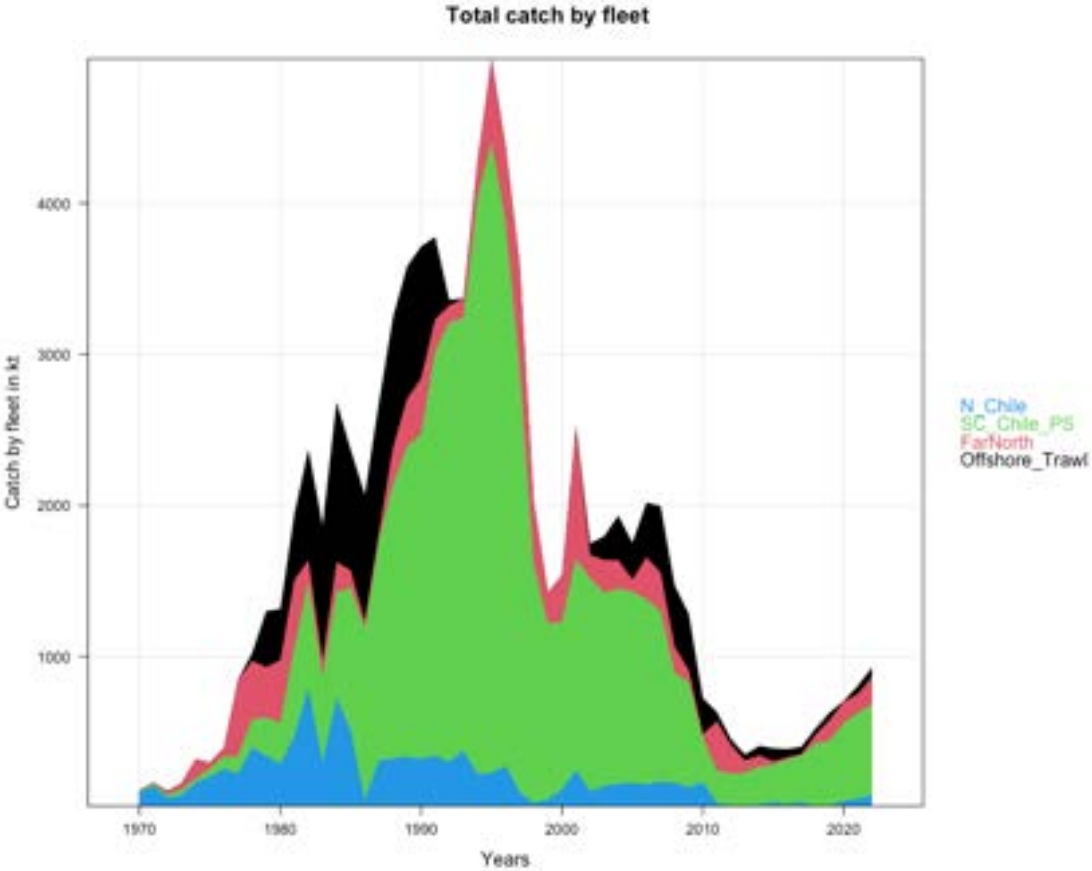


Figure A10.1: Catch of jack mackerel by fleet. Blue is the northern Chilean fleet, green is the south-central Chilean fleet, red is the far north fleet, and black is the offshore trawl fleet.

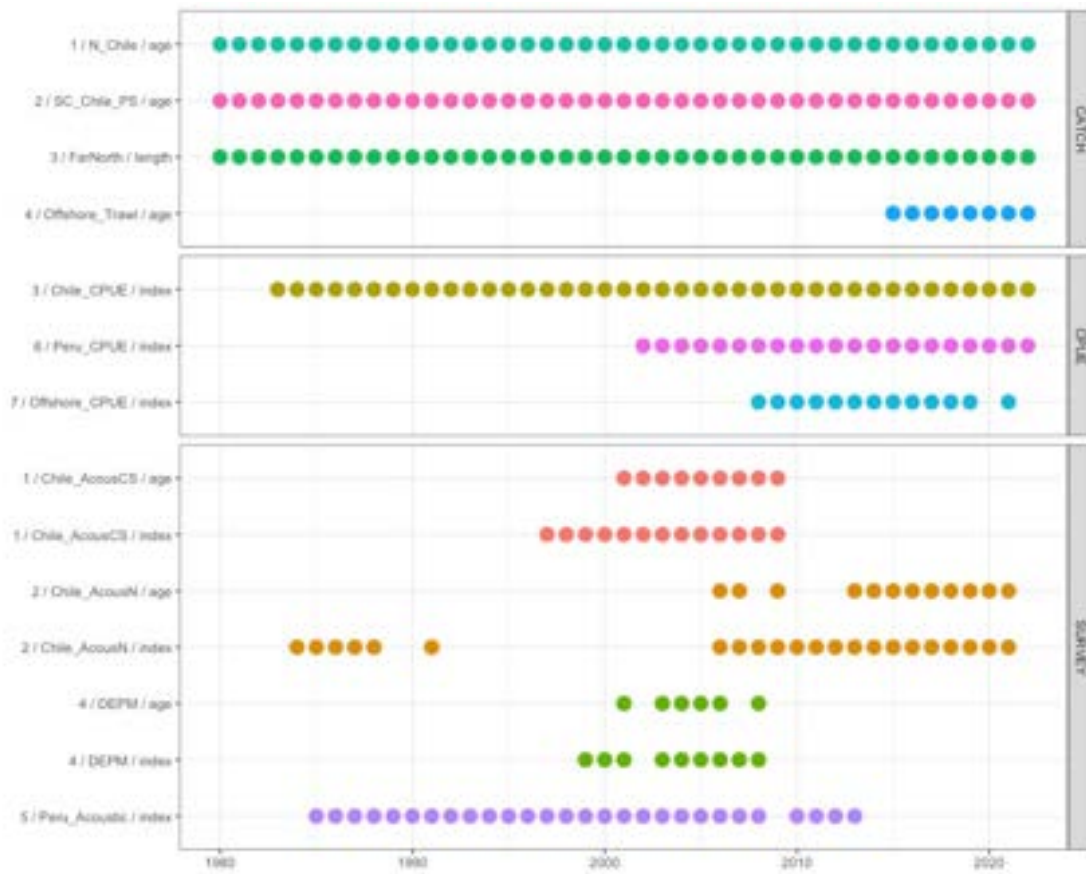


Figure A10.2: Years and types of information used in the jack mackerel assessment models.

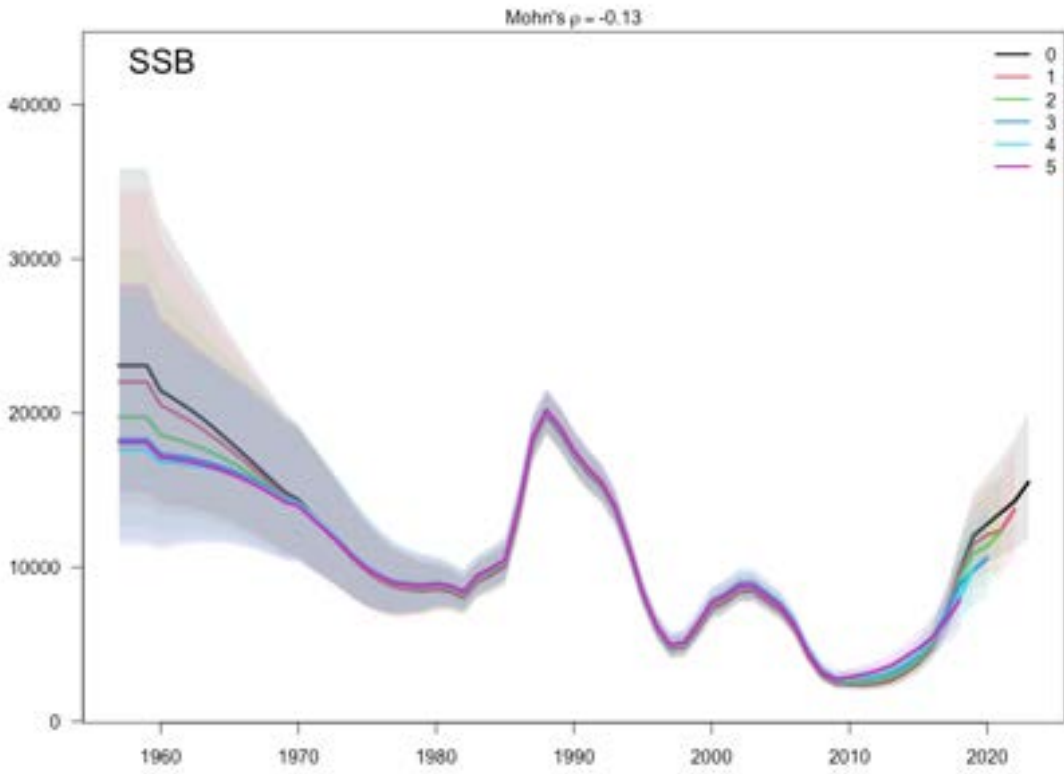


Figure A10.3: Model retrospective of spawning biomass from 5 separate model runs, based on Model h1_1.02 (single-stock hypothesis).

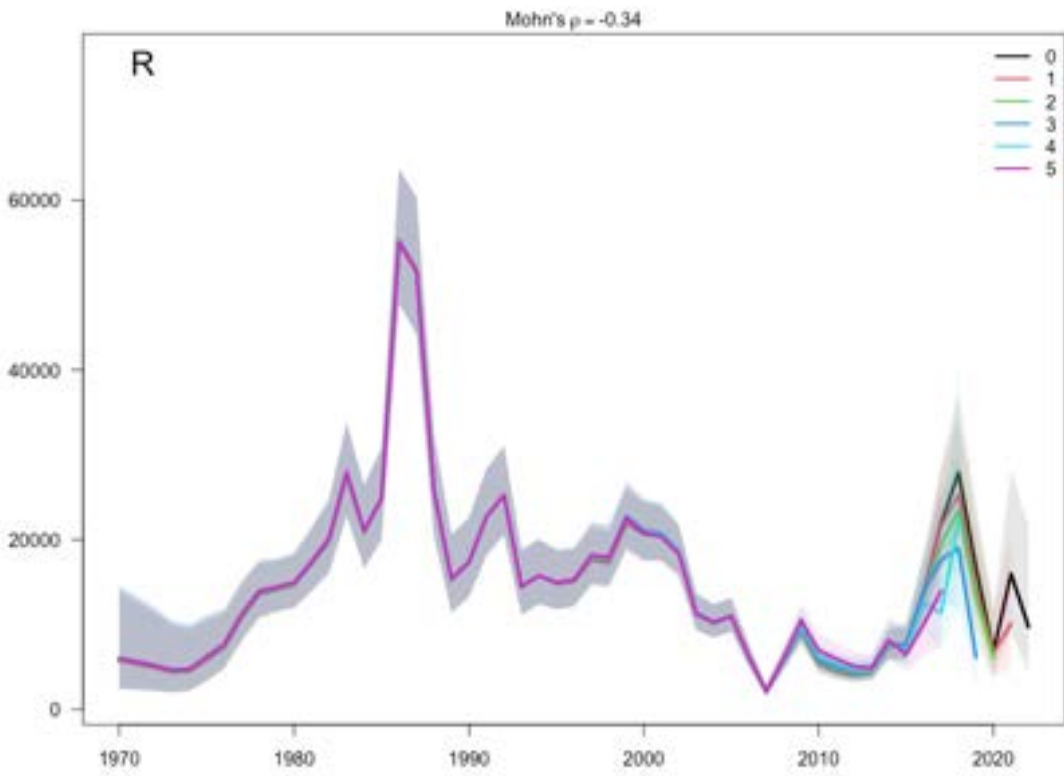


Figure A10.4: Model retrospective of recruitment from 5 separate model runs, based on Model h1_1.02 (single-stock hypothesis).

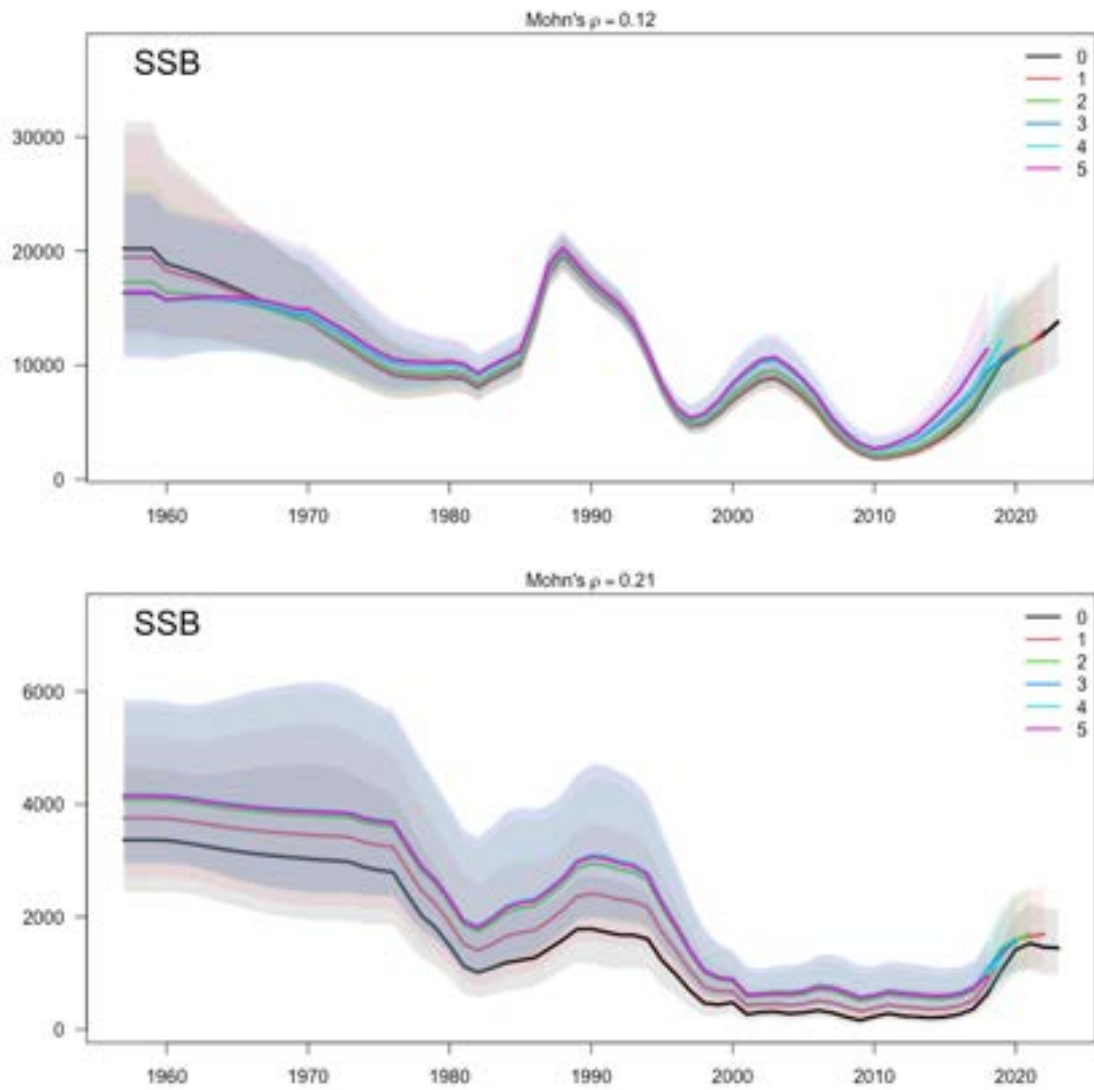


Figure A10.5: Model retrospective of spawning biomass from 5 separate model runs for the southern stock (top) and far north stock (bottom), based on Model h2_1.02 (two-stock hypothesis).

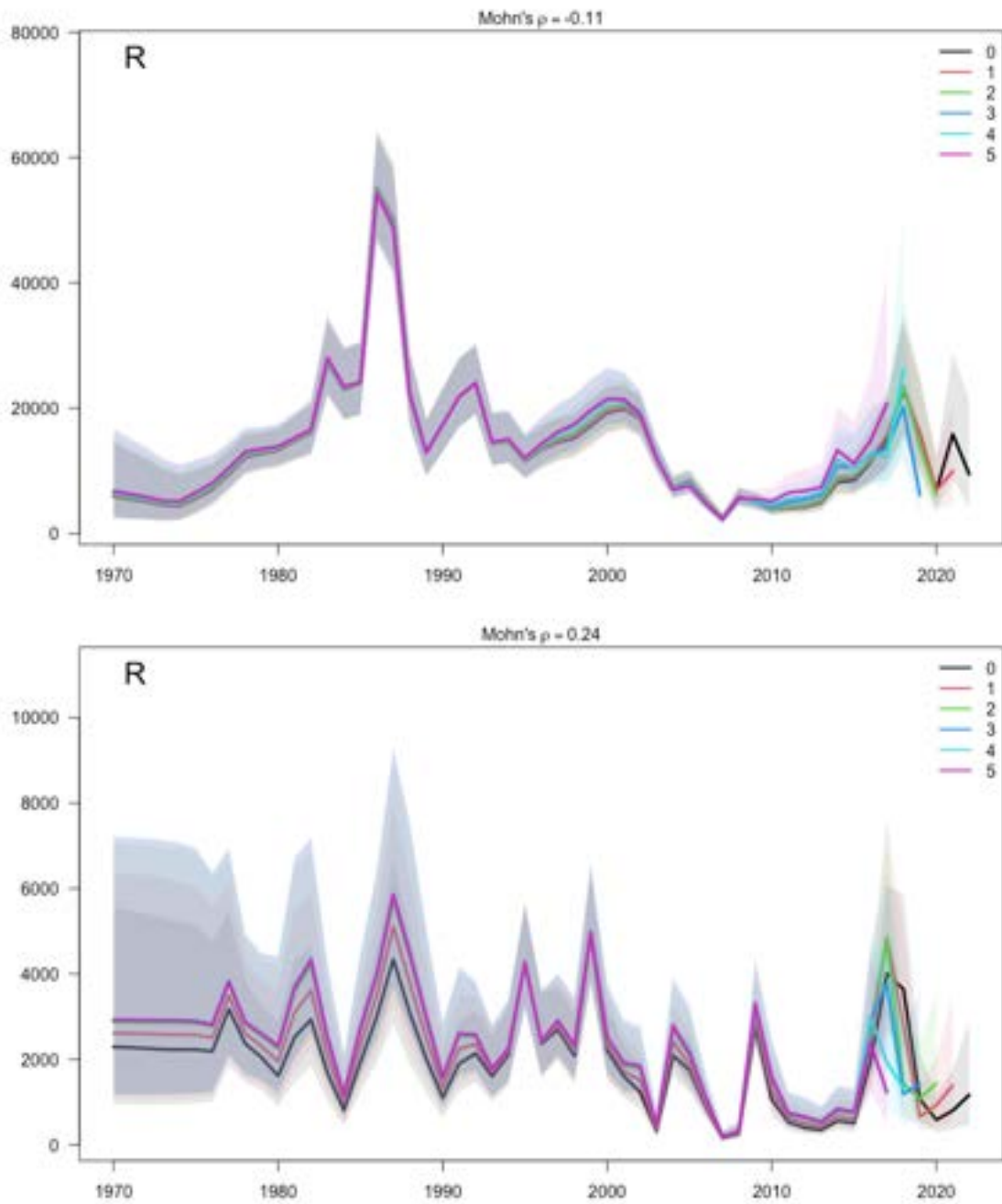


Figure A10.6: Model retrospective of southern stock recruitment from 5 separate model runs for the southern stock (top) and far north stock (bottom), based on Model h2_1.02 (two-stock hypothesis).

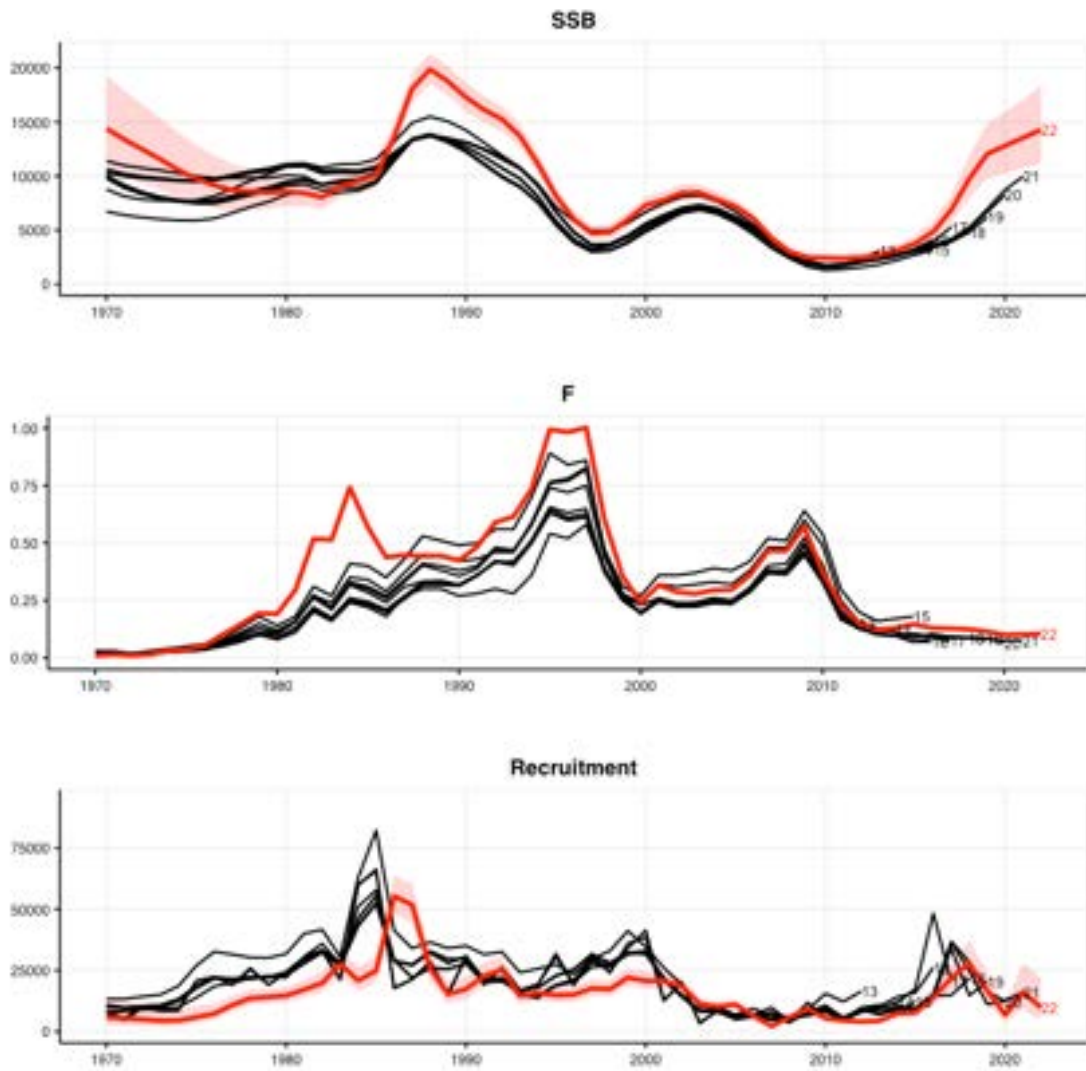


Figure A10.7: Historical retrospective of spawning stock biomass, fishing mortality, and recruitment estimated from Model h1_1.02 (single-stock hypothesis), as estimated and used for advice from SPFRMO Scientific Committees 2013-2022

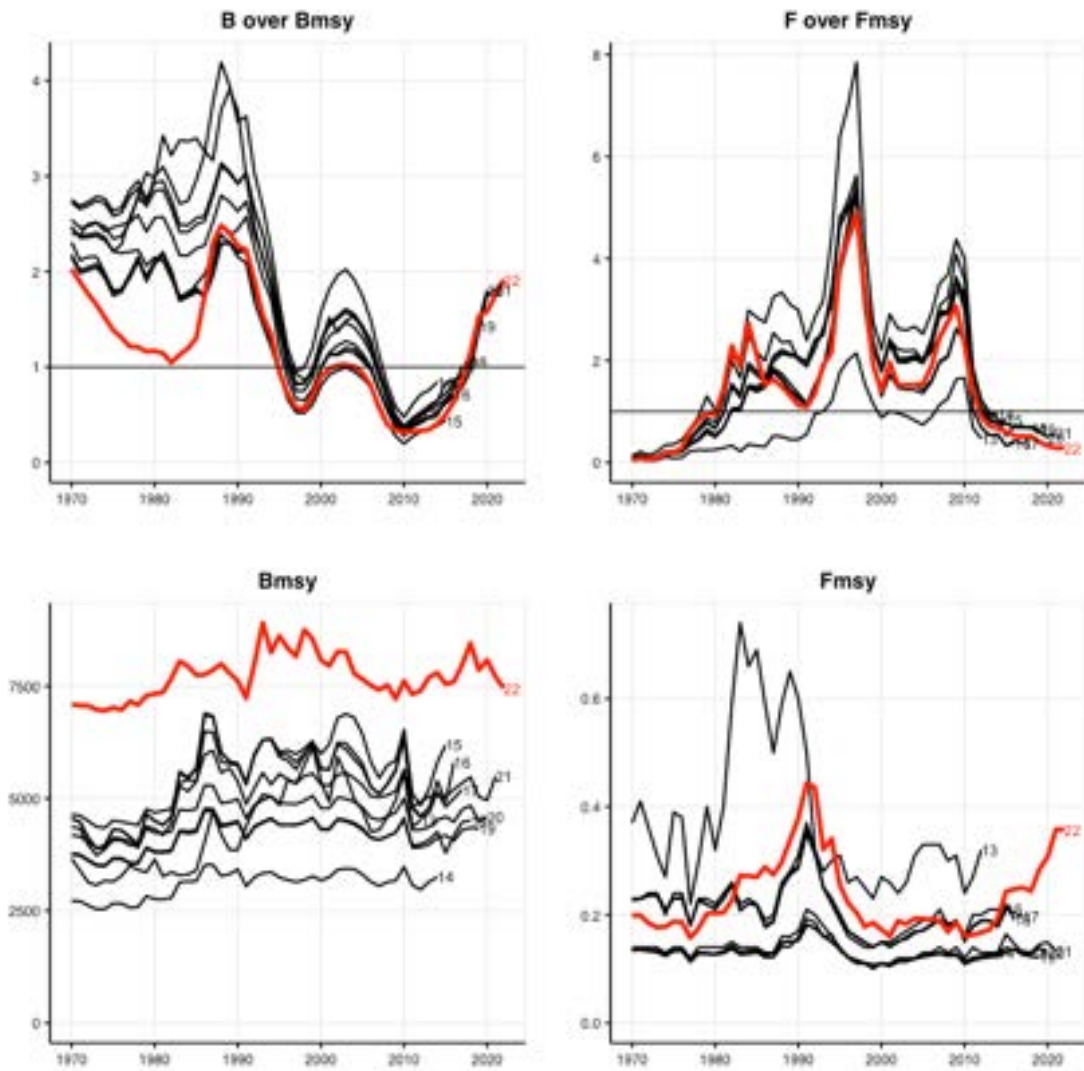


Figure A10.8: Historical retrospective of management reference points estimated from Model h1_1.02 (single-stock hypothesis), as estimated and used for advice from past (and present) SPRFMO scientific committees.



Figure A10.9: Mean weights-at-age (kg) over time used for the fisheries in the JJM models. Each line represents an age from 1 to 12.

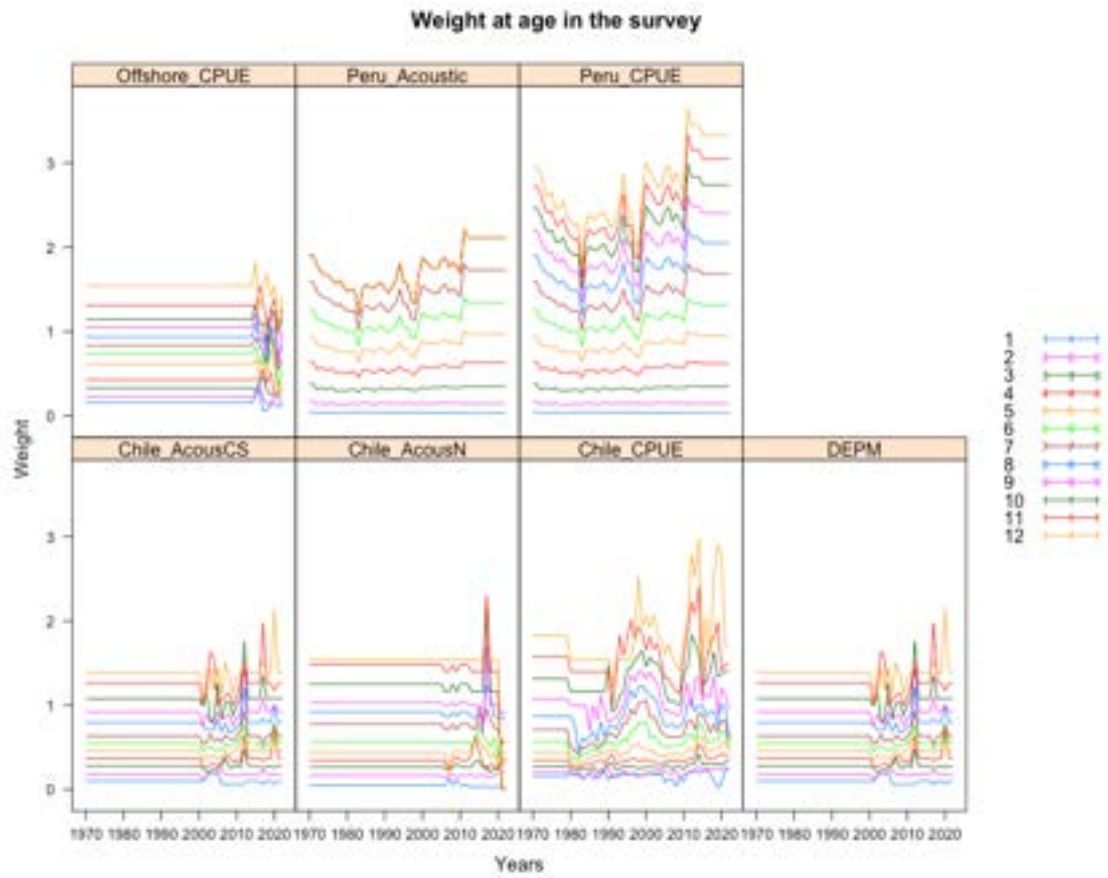


Figure A10.10: Mean weights-at-age (kg) over time used for the surveys in the JIM models. Each line represents an age from 1 to 12.

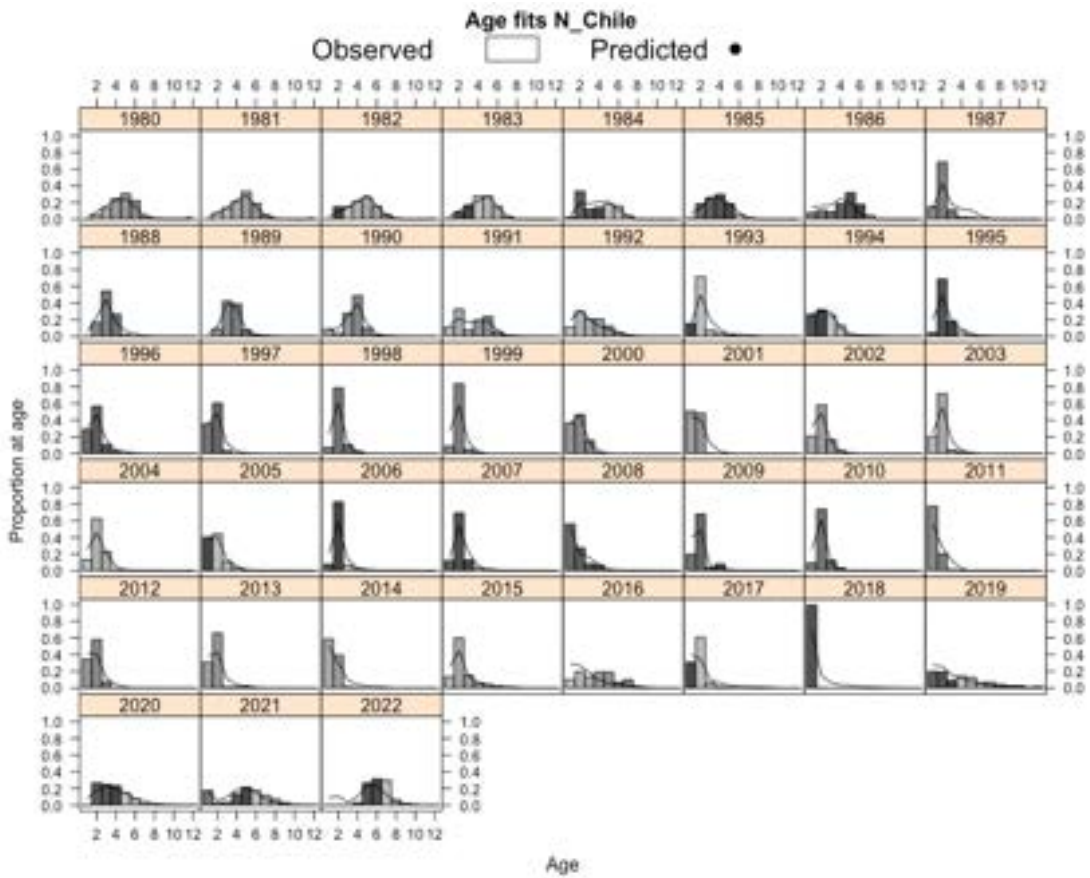


Figure A10.11: Model h1_1.02 (single-stock hypothesis) fit to the age compositions for the Chilean northern zone fishery (Fleet 1). Bars represent the observed data and lines represent the model predictions.

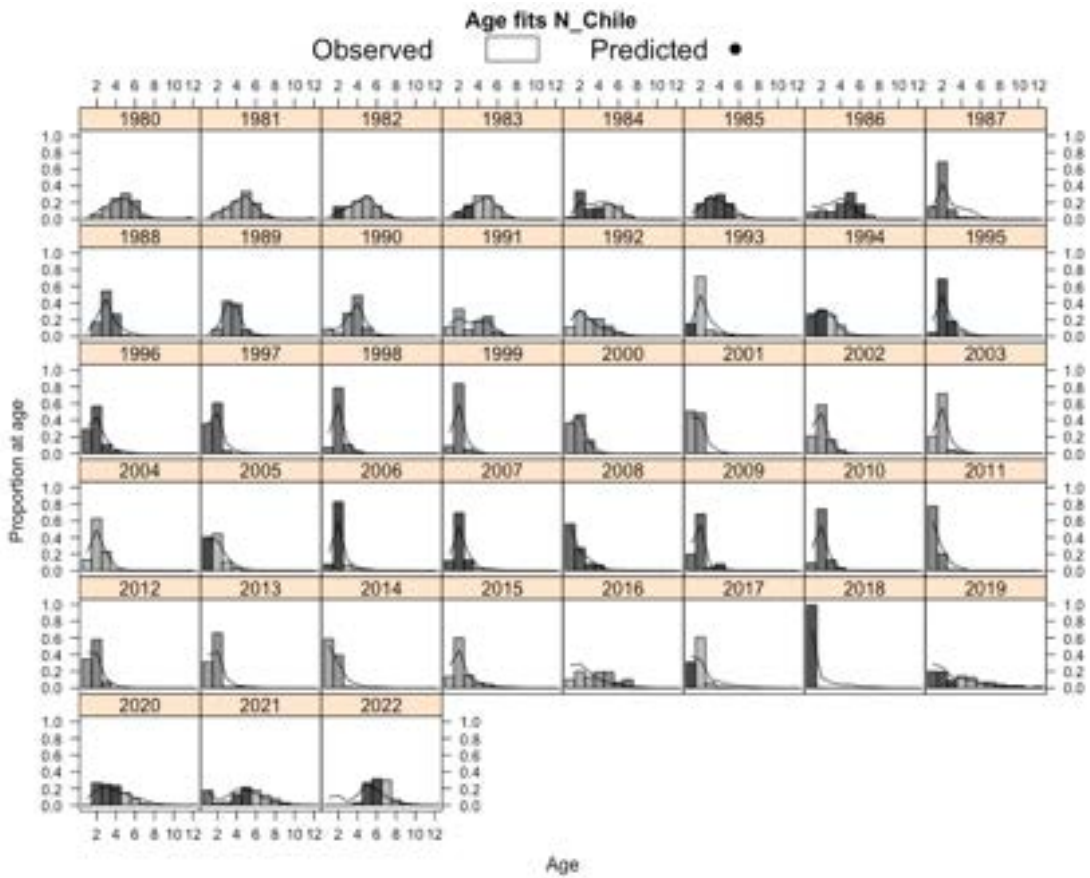


Figure A10.12: Model h2_1.02 (two-stock hypothesis) fit to the age compositions for the Chilean northern zone fishery (Fleet 1). Bars represent the observed data and lines represent the model predictions.

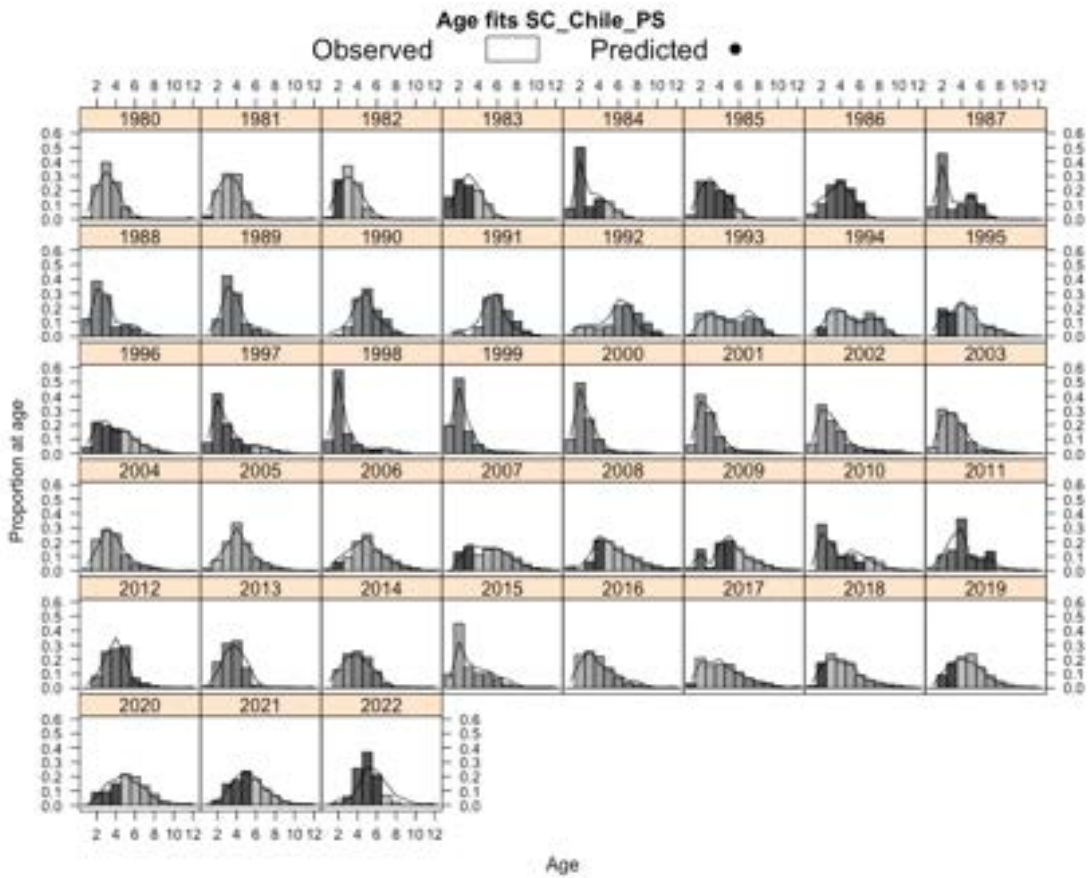


Figure A10.13: Model h1_1.02 (single-stock hypothesis) fit to the age compositions for the South-Central Chilean purse seine fishery (Fleet 2). Bars represent the observed data and lines represent the model predictions.

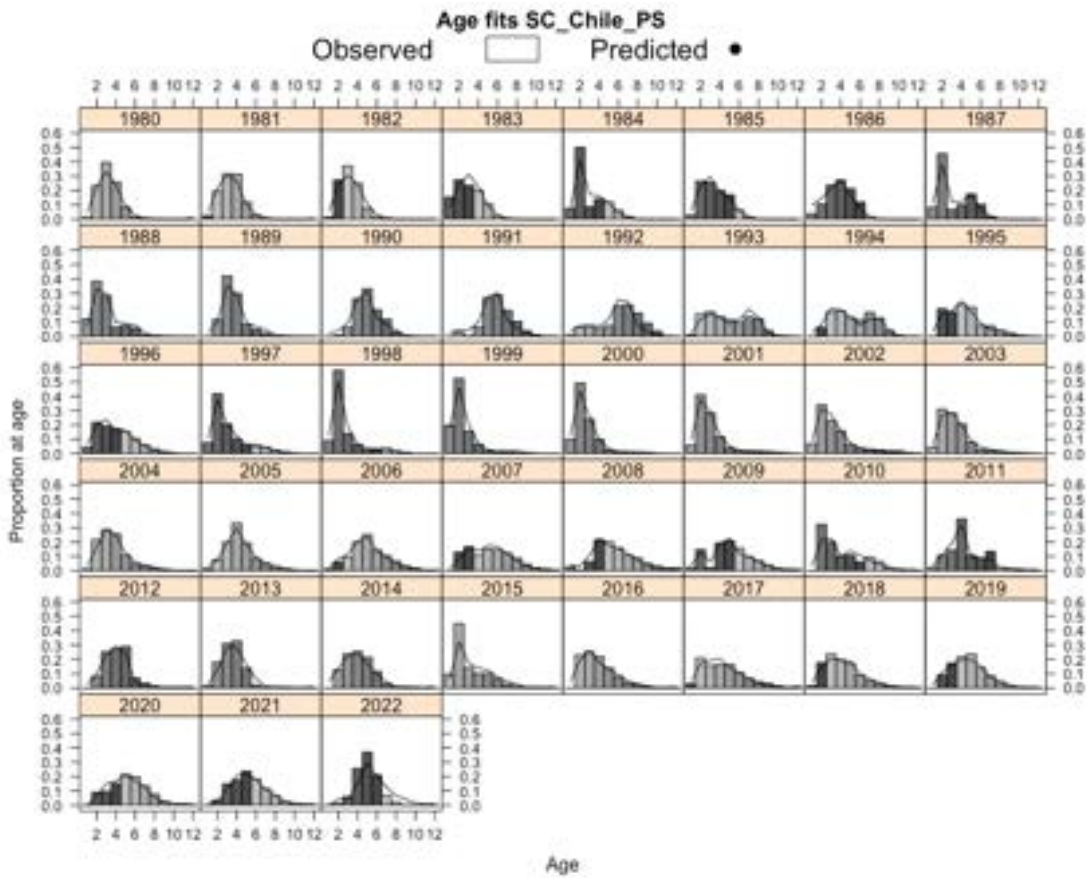


Figure A10.14: Model h2_1.02 (two-stock hypothesis) fit to the age compositions for the South-Central Chilean purse seine fishery (Fleet 2). Bars represent the observed data and lines represent the model predictions.

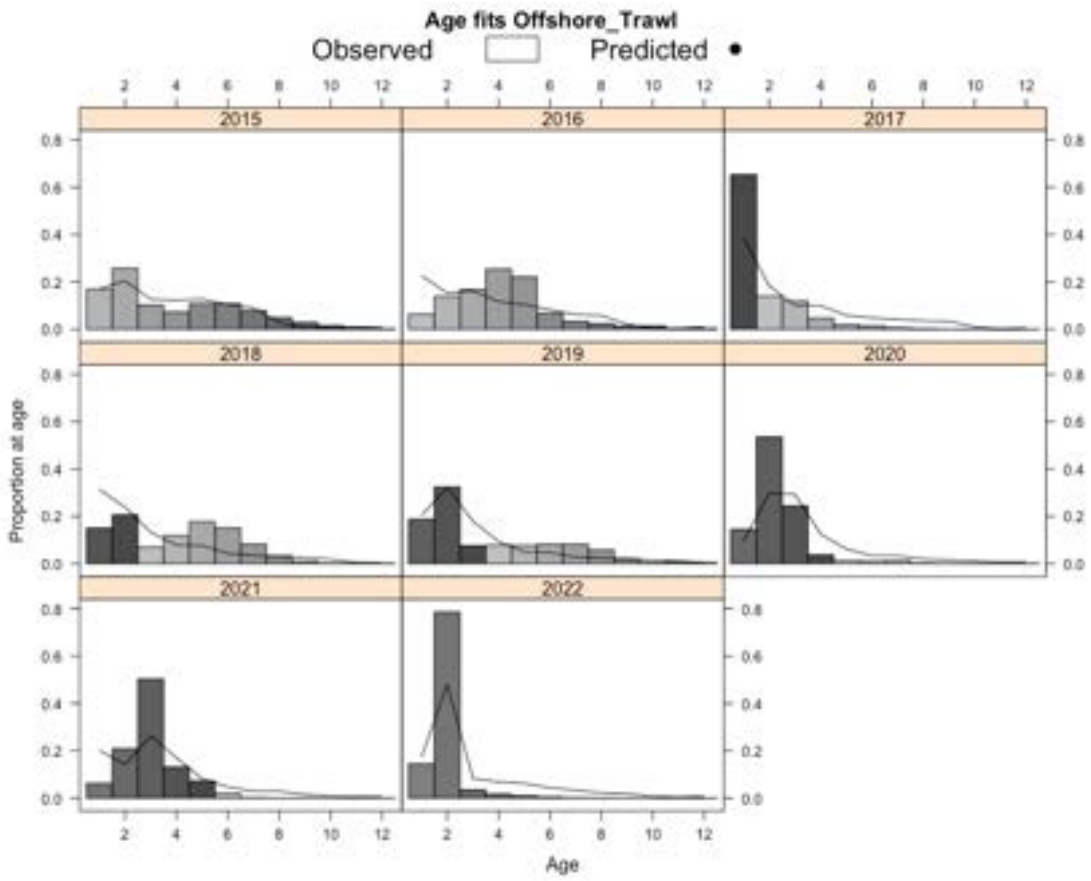


Figure A10.15: Model h1_1.02 (single-stock hypothesis) fit to the age compositions for the offshore trawl fishery (Fleet 4). Bars represent the observed data and lines represent the model predictions.

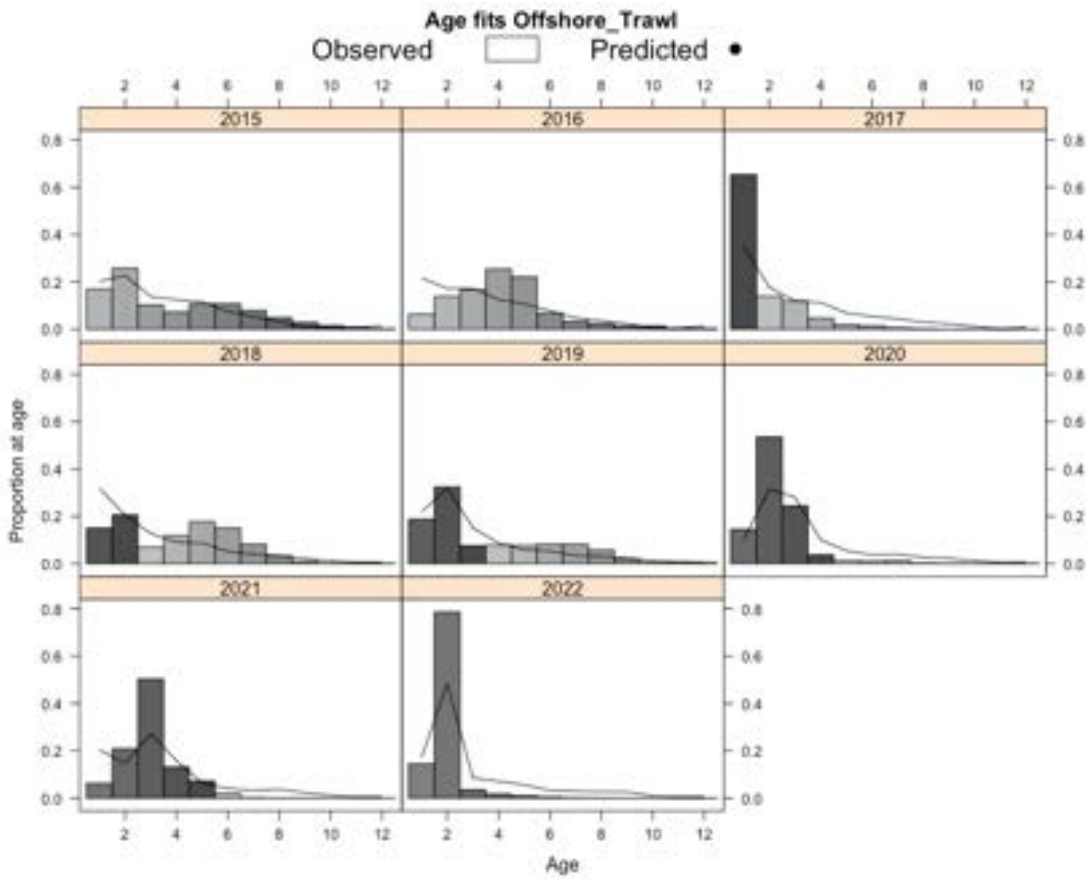


Figure A10.16: Model h2_1.02 (two-stock hypothesis) fit to the age compositions for the offshore trawl fishery (Fleet 4). Bars represent the observed data and lines represent the model predictions.

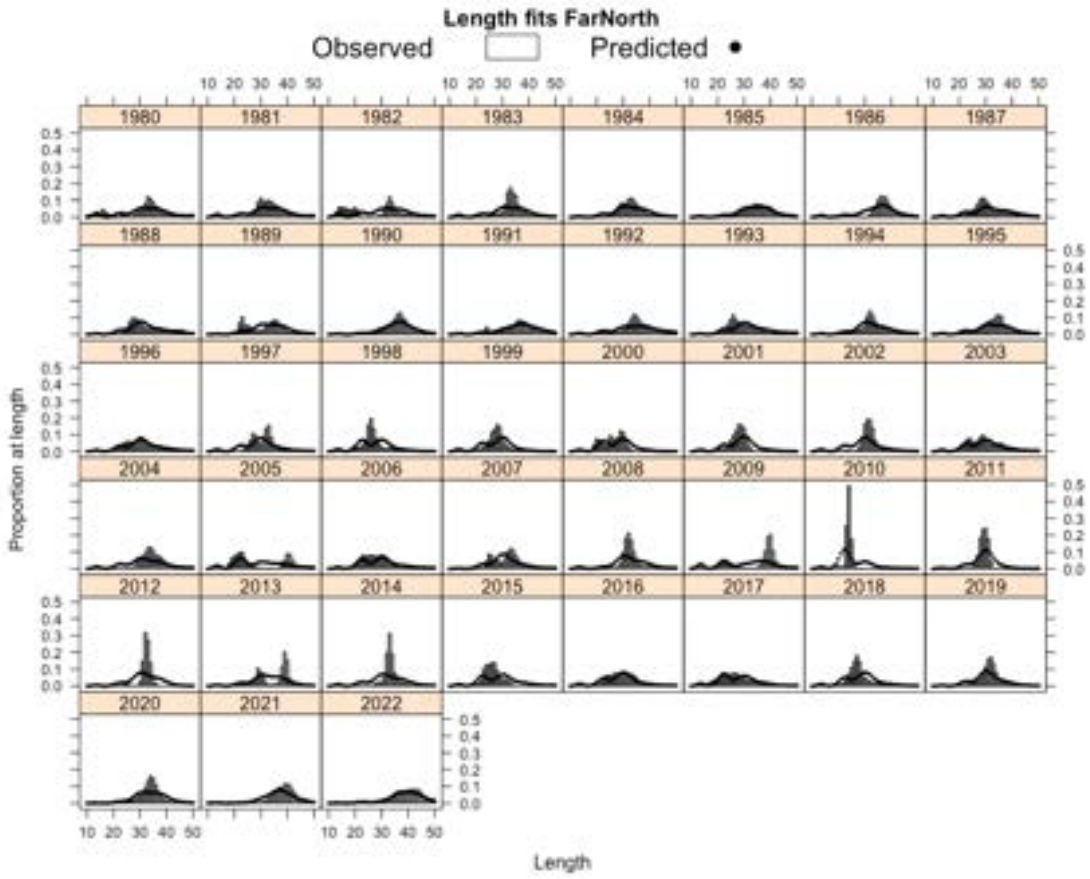


Figure A10.17: Model h1_1.02 (single-stock hypothesis) fit to the length compositions for the far north fishery (Fleet 3). Bars represent the observed data and lines represent the model predictions.

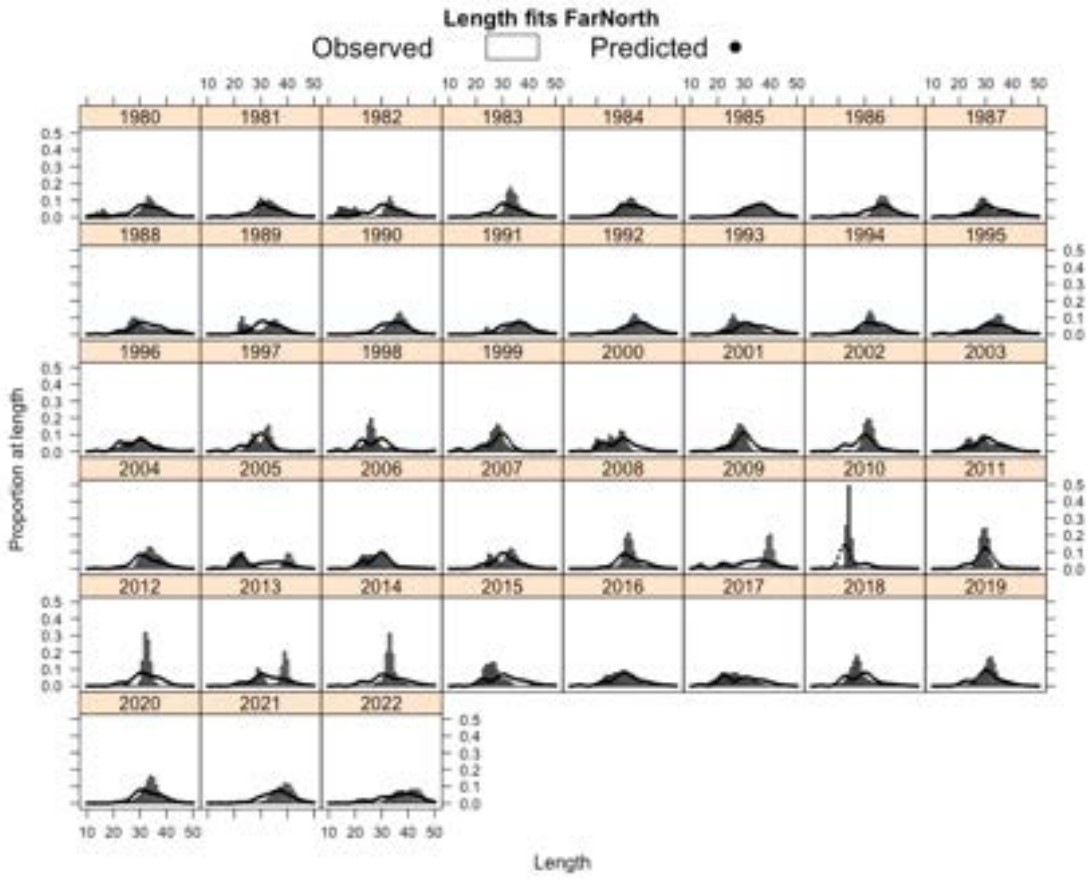


Figure A10.18: Model h2_1.02 (two-stock hypothesis) fit to the length compositions for the far north fishery (Fleet 3). Bars represent the observed data and lines represent the model predictions.

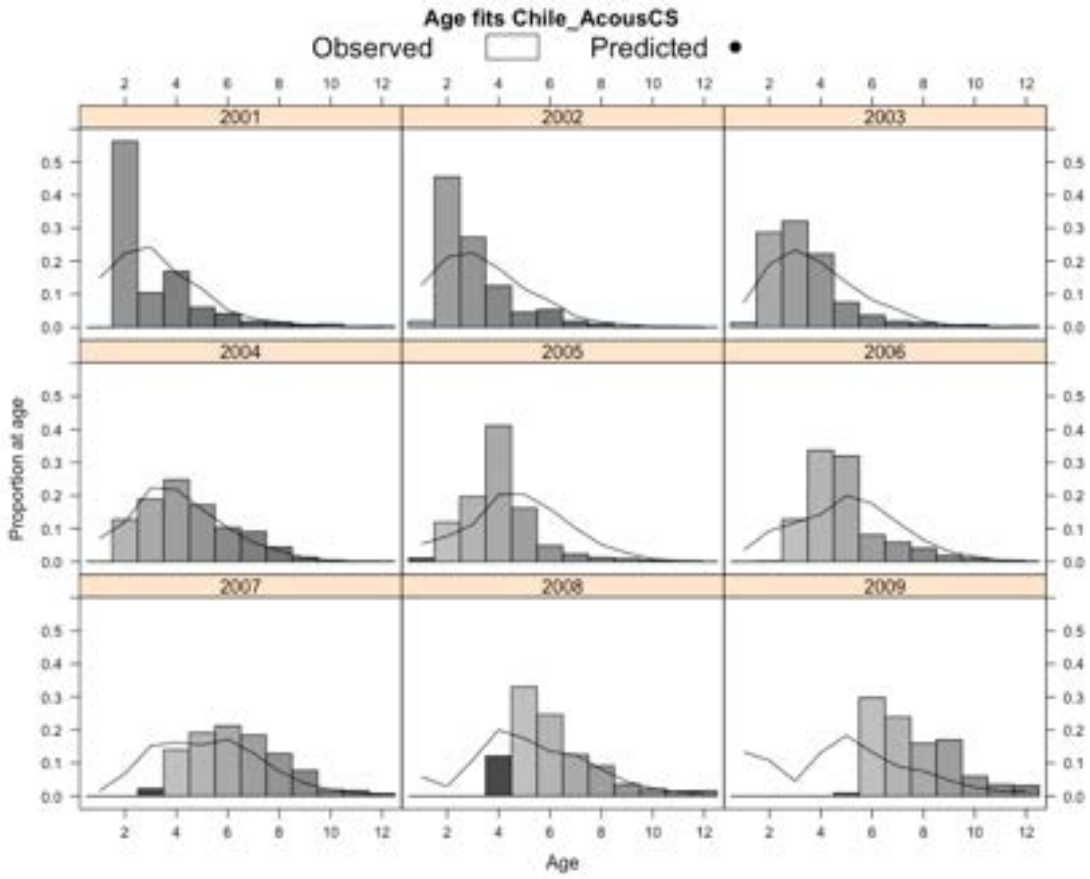


Figure A10.19: Model h1_1.02 (single-stock hypothesis) fit to the age compositions for the South-Central Acoustic survey. Bars represent the observed data and lines represent the model predictions.

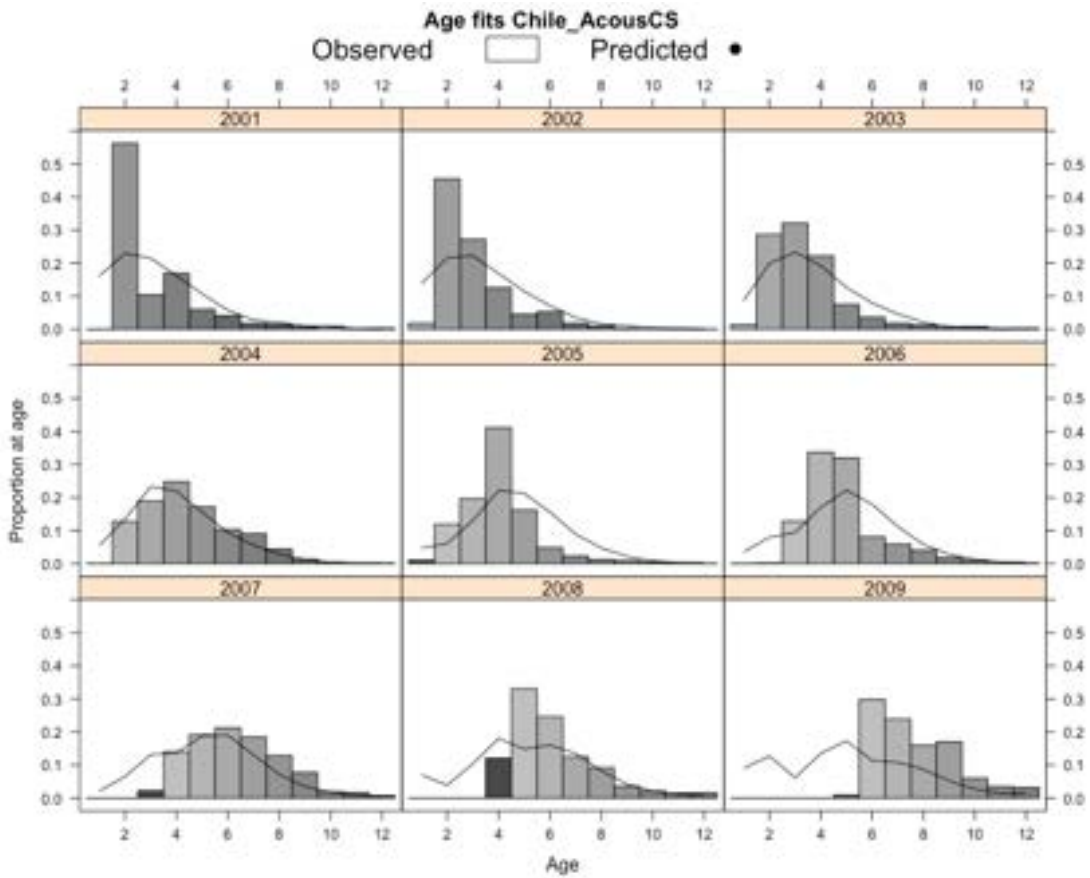


Figure A10.20: Model h2_1.02 (two-stock hypothesis) fit to the age compositions for the South-Central Acoustic survey. Bars represent the observed data and lines represent the model predictions.

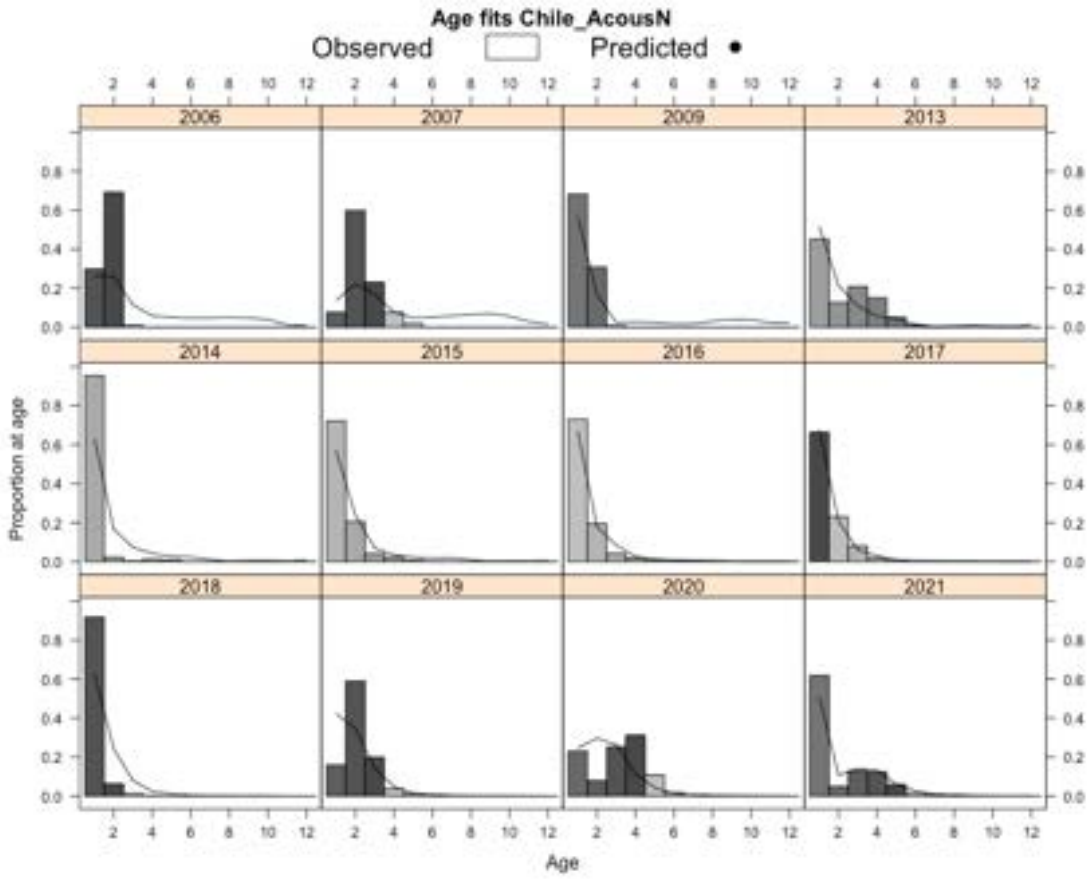


Figure A10.21: Model h1_1.02 (single-stock hypothesis) fit to the age compositions for the North Chilean acoustic survey. Bars represent the observed data and lines represent the model predictions.

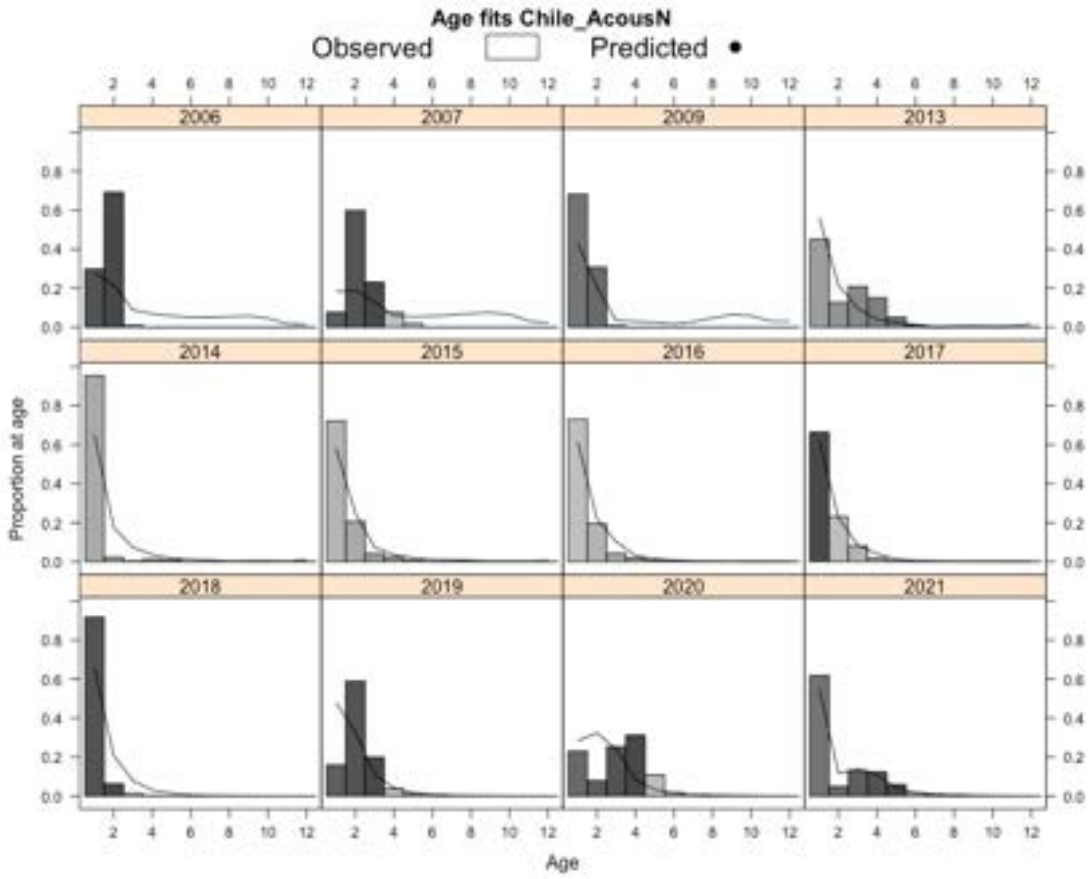


Figure A10.22: Model h2_1.02 (two-stock hypothesis) fit to the age compositions for the North Chilean acoustic survey. Bars represent the observed data and lines represent the model predictions.

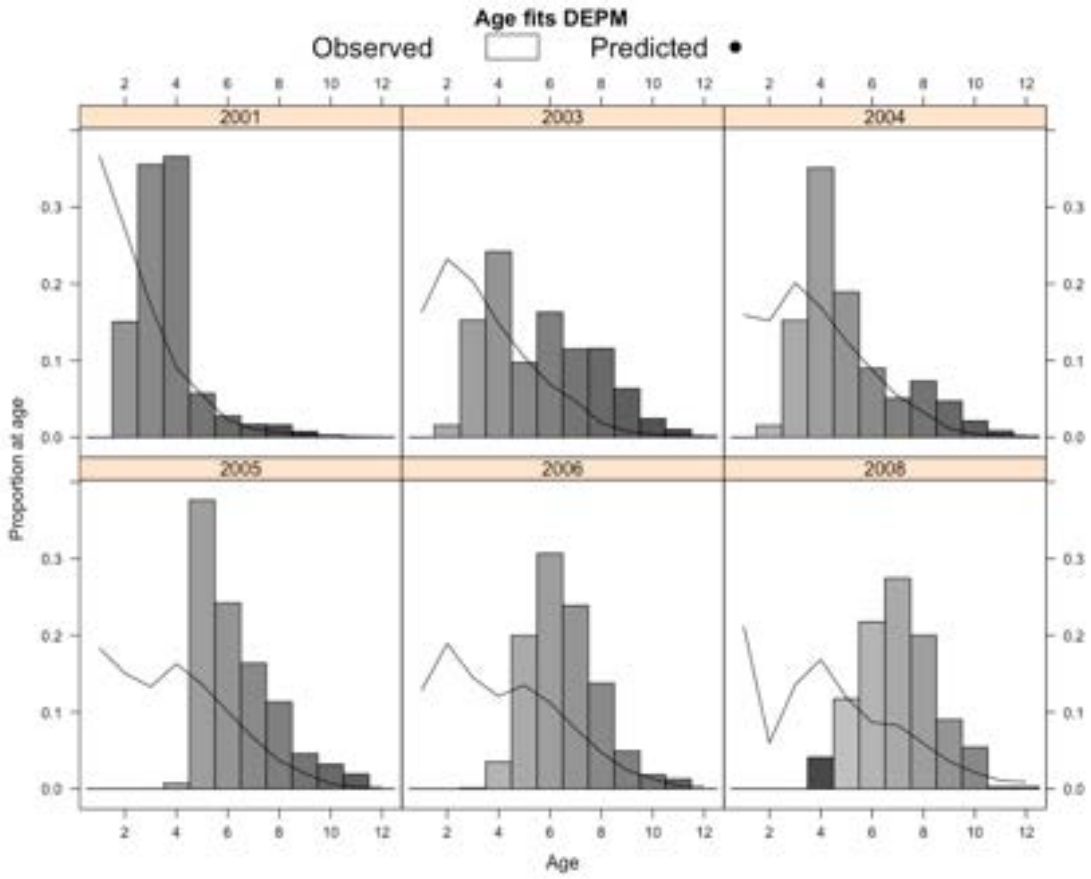


Figure A10.23: Model h1_1.02 (single-stock hypothesis) fit to the age compositions for the Daily Egg Production Method (DEPM) survey. Bars represent the observed data and lines represent the model predictions.

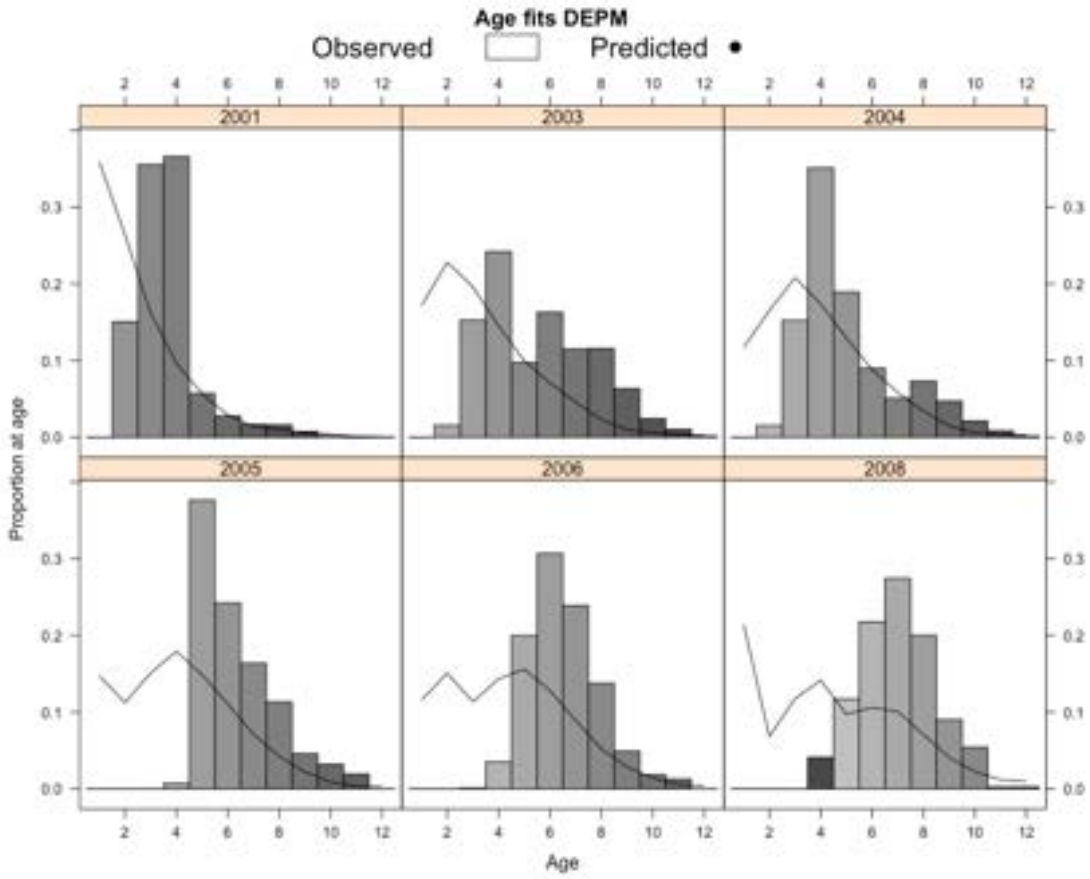


Figure A10.24: Model h2_1.02 (two-stock hypothesis) fit to the age compositions for the Daily Egg Production Method (DEPM) survey. Bars represent the observed data and lines represent the model predictions.

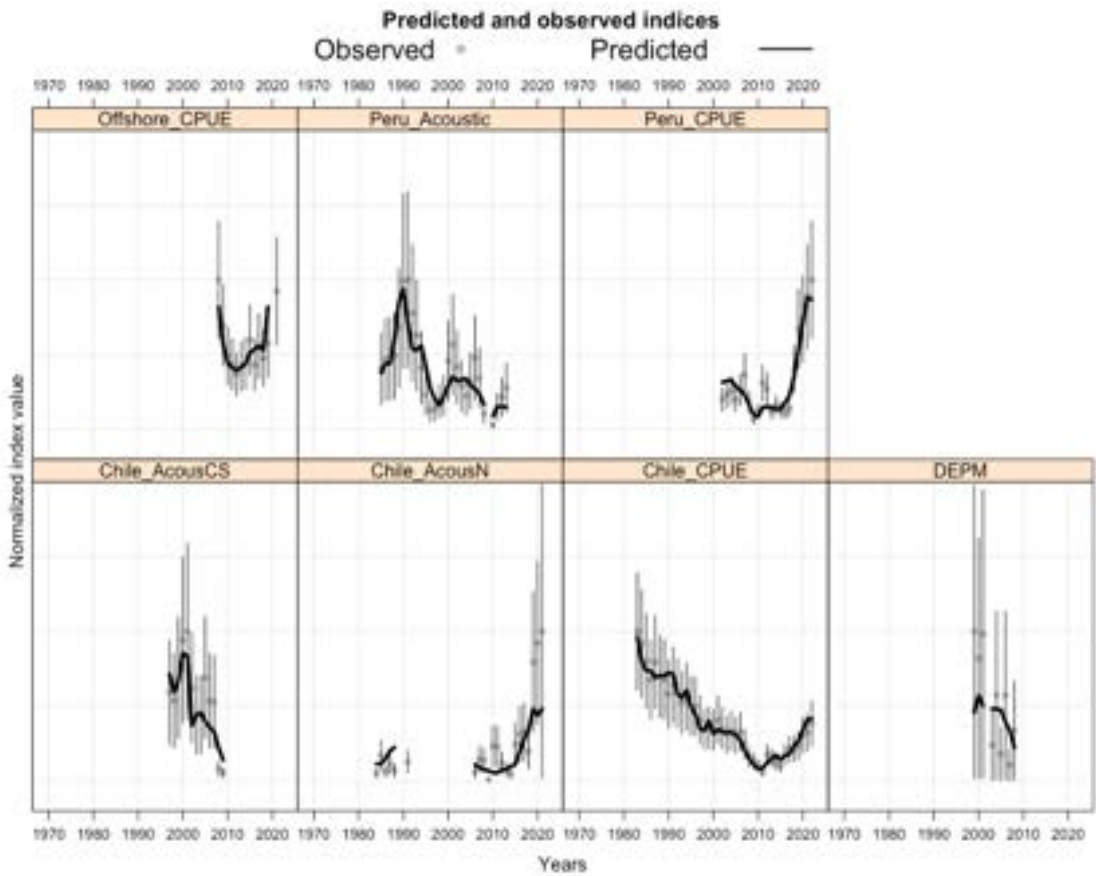


Figure A10.25: Model h1_1.02 (single-stock hypothesis) fit to different indices. Vertical bars represent 2 standard deviations around the observations.

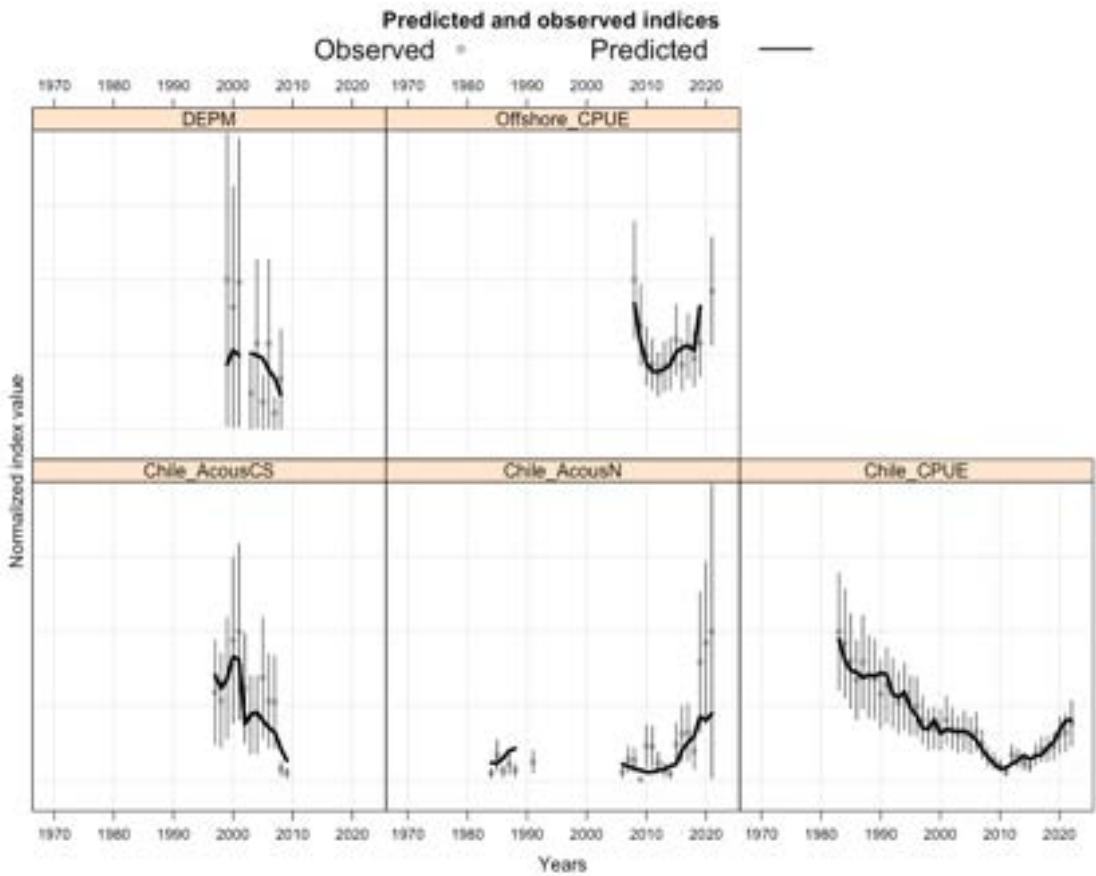


Figure A10.26: Model h2_1.02 (two-stock hypothesis) fit to indices for the south stock. Vertical bars represent 2 standard deviations around the observations.

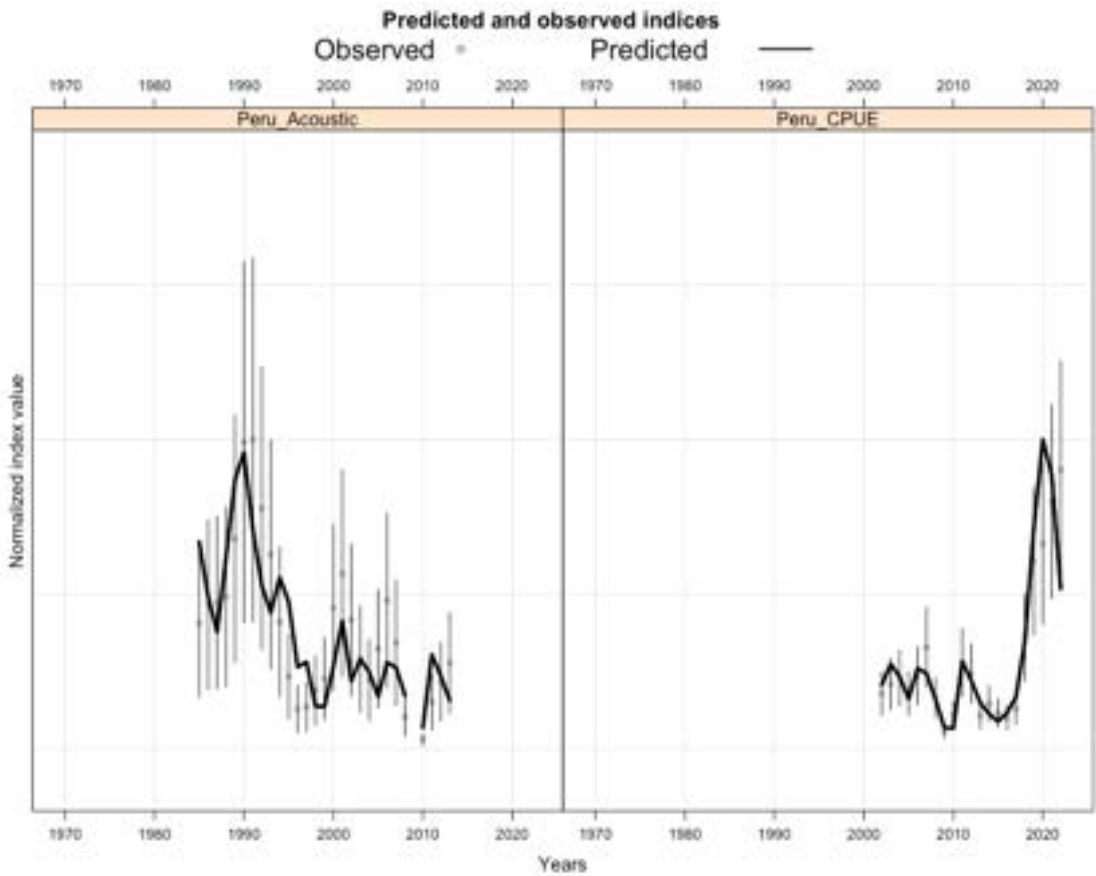


Figure A10.27: Model h2_1.02 (two-stock hypothesis) fit to indices for the north stock. Vertical bars represent 2 standard deviations around the observations.

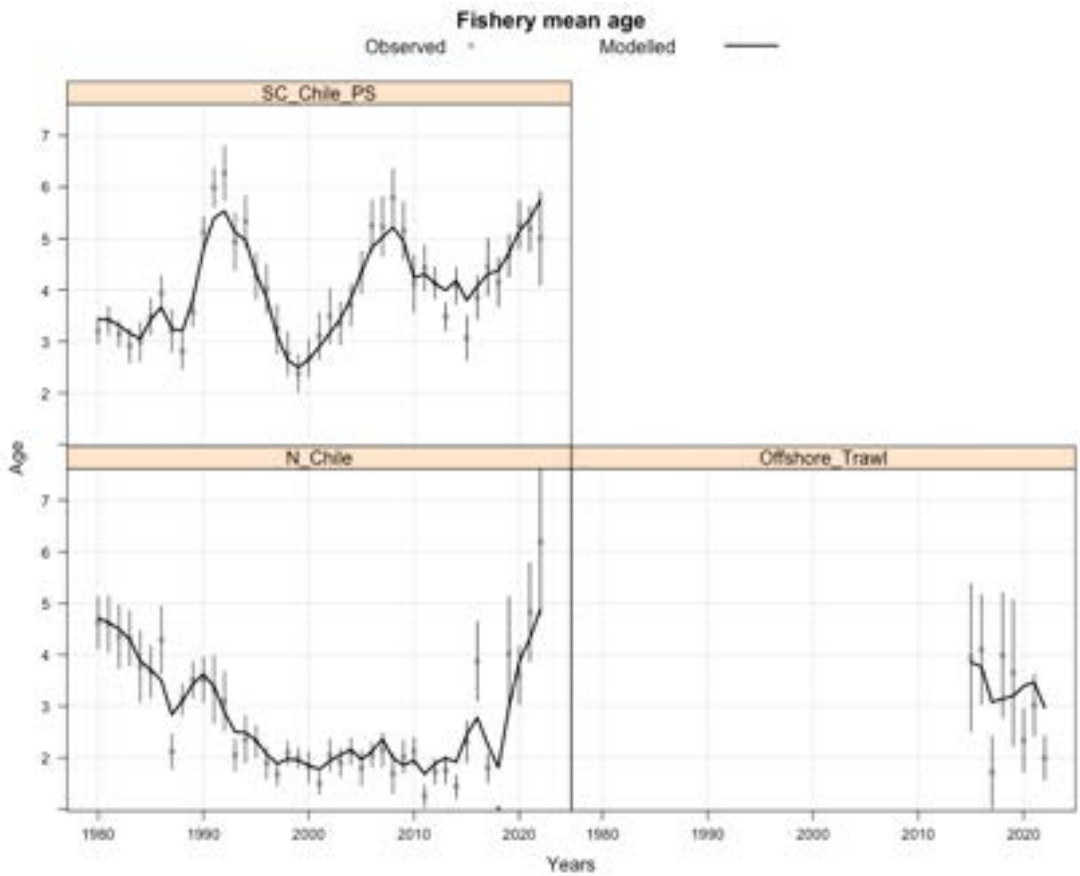


Figure A10.28: Mean age by year and fishery. Line represents the Model h1_1.02 (single-stock hypothesis) predictions and dots observed values with implied input error bars.

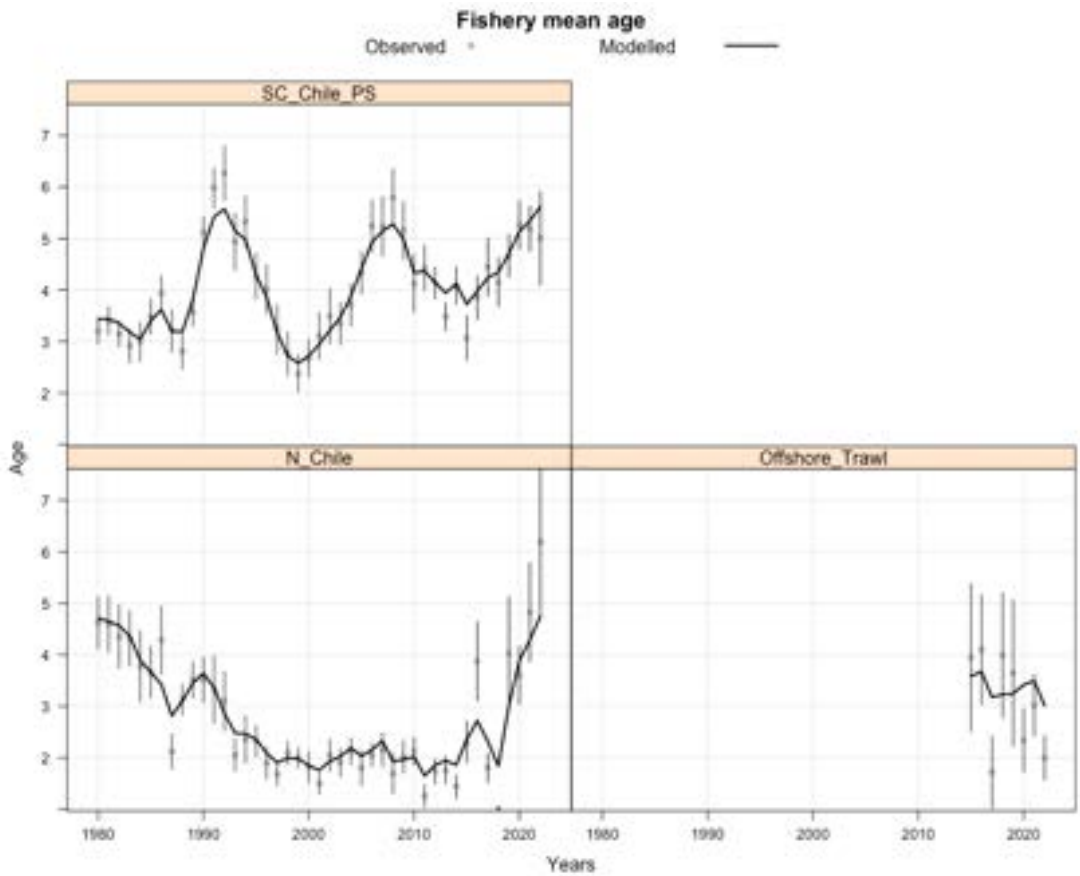


Figure A10.29: Mean age by year and fishery. Line represents the Model h2_1.02 (two-stock hypothesis) predictions and dots observed values with implied input error bars.

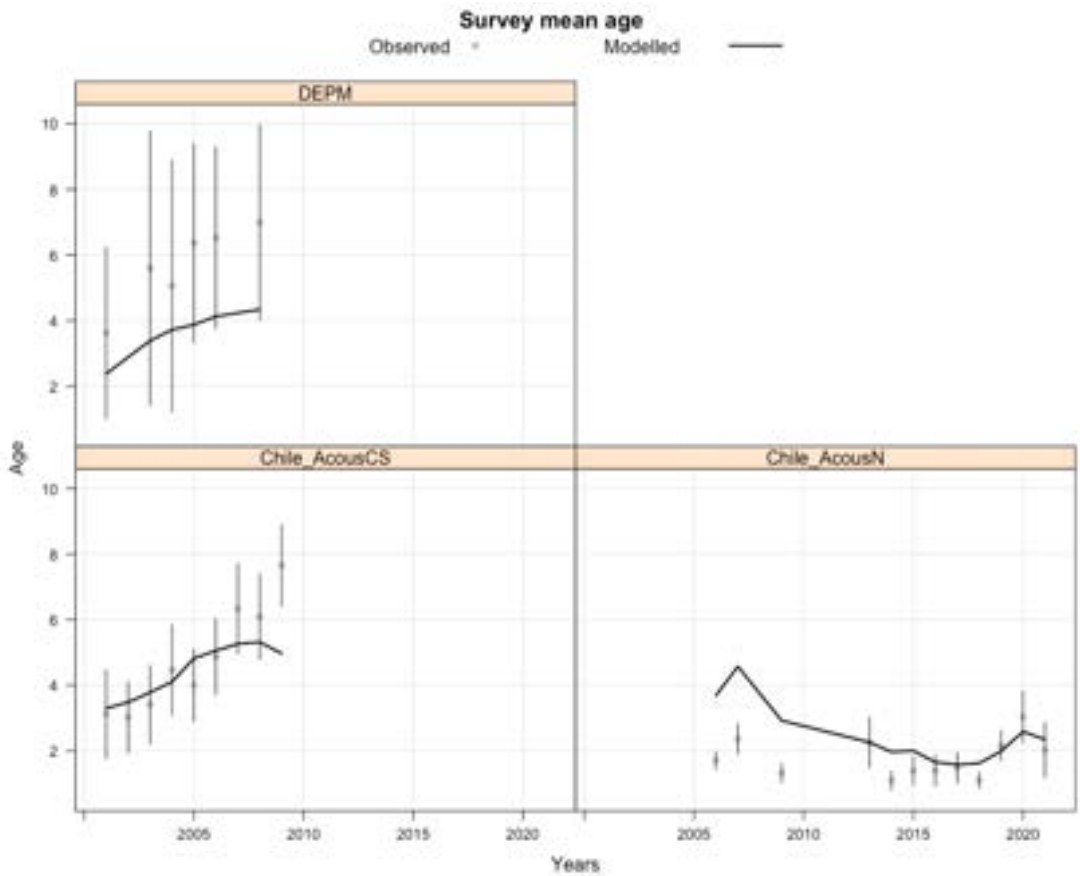


Figure A10.30: Mean age by year and survey. Line represents the Model h1_1.02 (single-stock hypothesis) predictions and dots observed values with implied input error bars.

Figure A10.31: Mean age by year and survey. Line represents the Model h2_1.02 (two-stock hypothesis) predictions and dots observed values with implied input error bars.

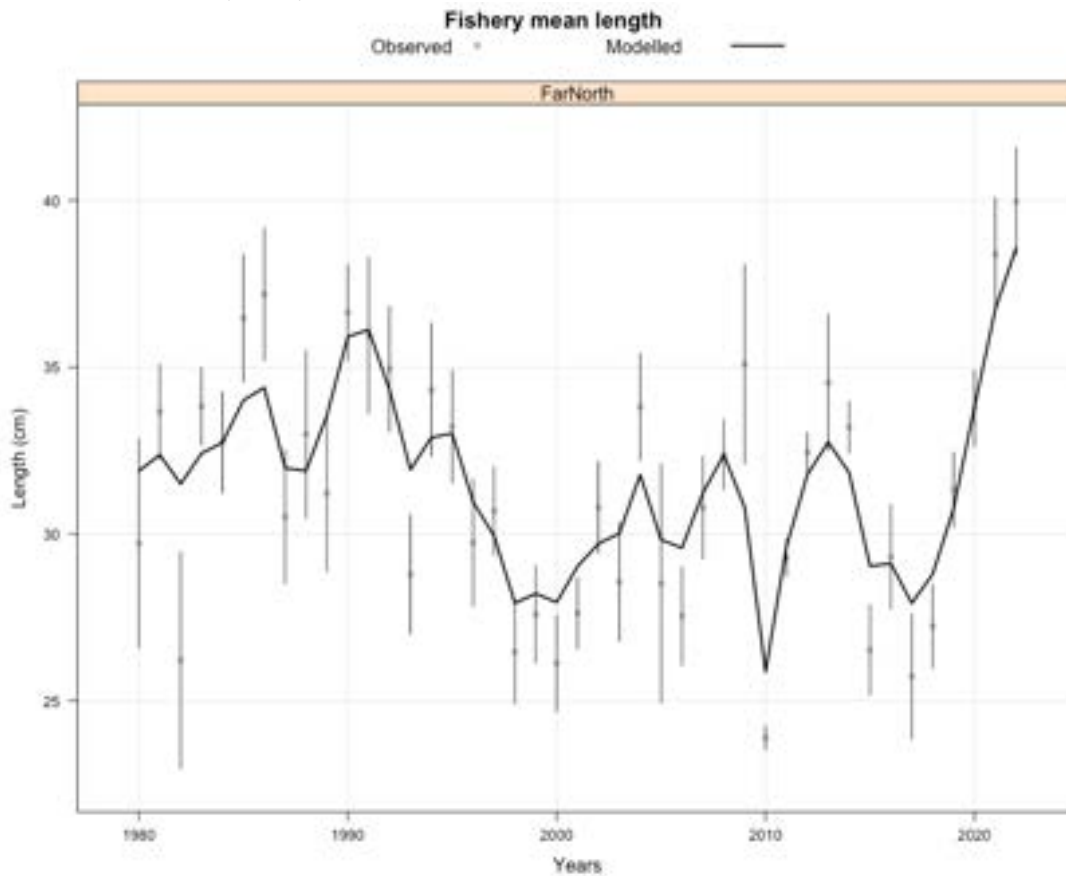


Figure A10.32: Mean length by year in Fleet 3 (Far North). Line represents the Model h1_1.02 (single-stock hypothesis) predictions and dots observed values with implied input error bars.

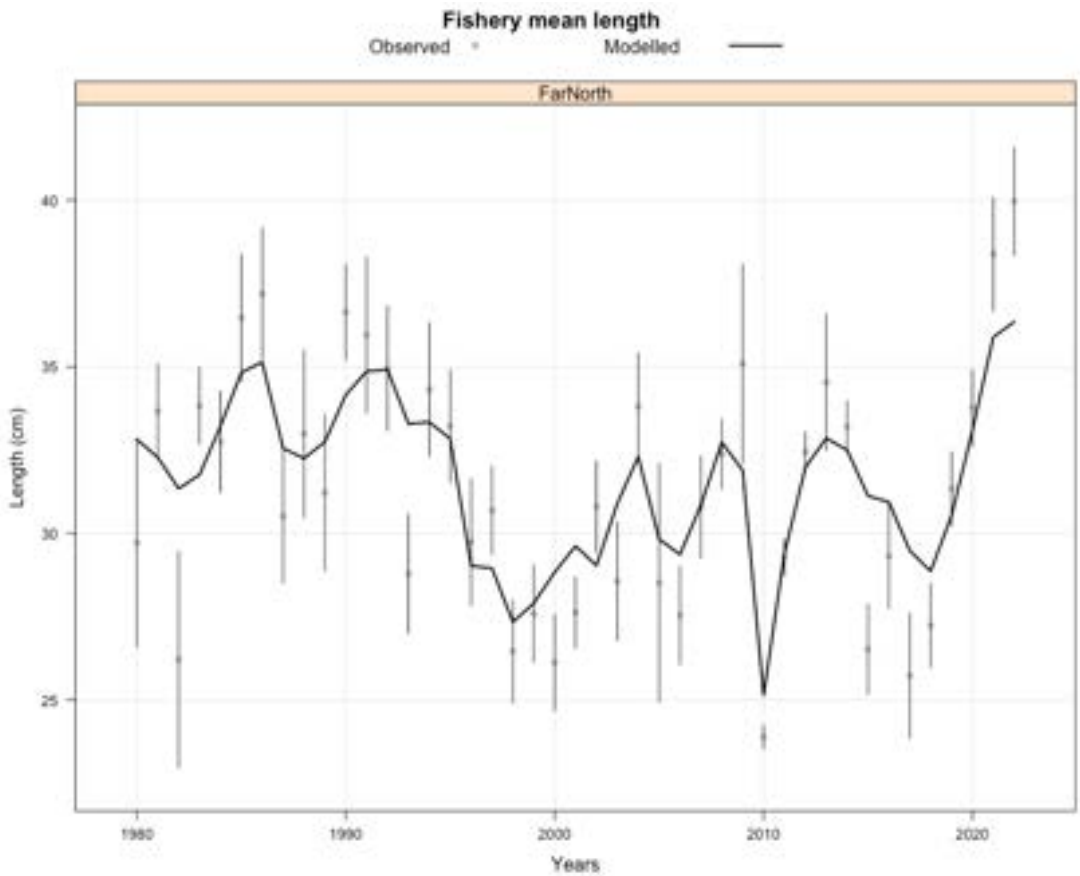


Figure A10.33: Mean length by year in Fleet 3 (Far North). Line represents the Model h2_1.02 (two-stock hypothesis) predictions and dots observed values with implied input error bars.

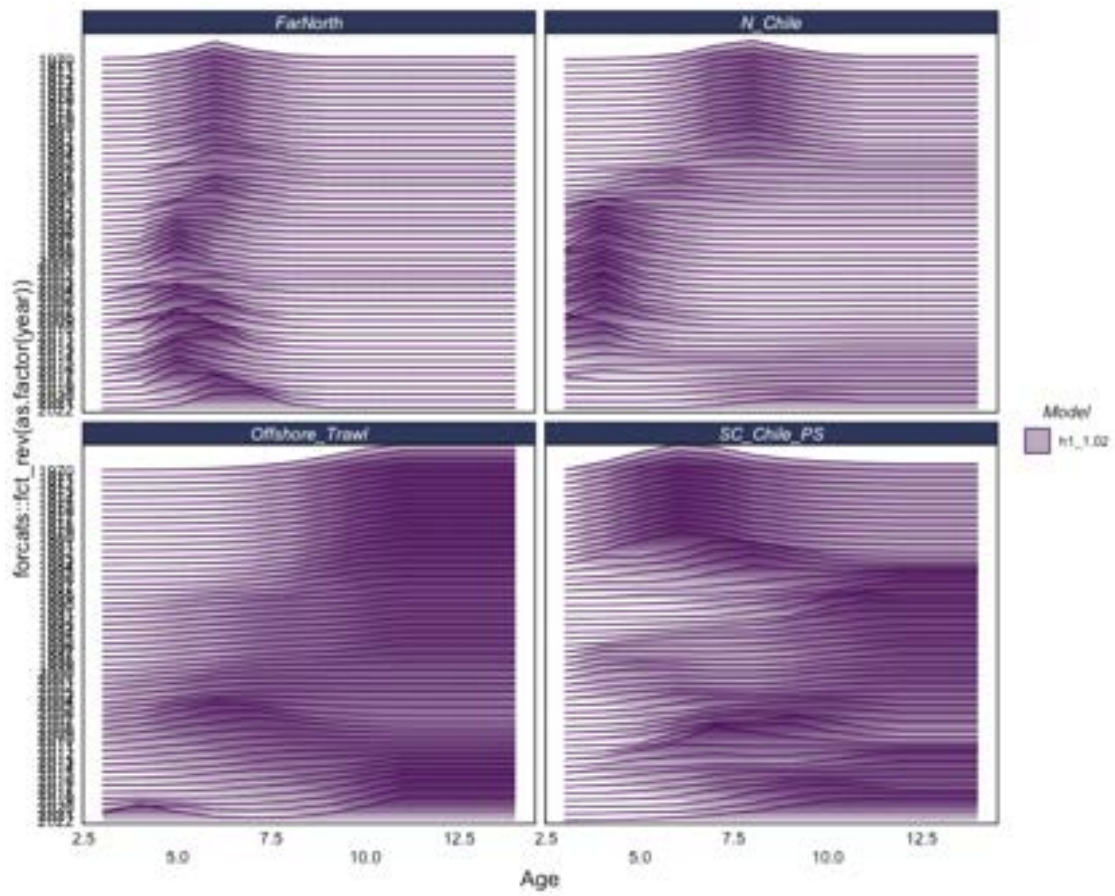


Figure A10.34: Estimates of selectivity by fishery over time for Model h1_1.02 (single-stock hypothesis).

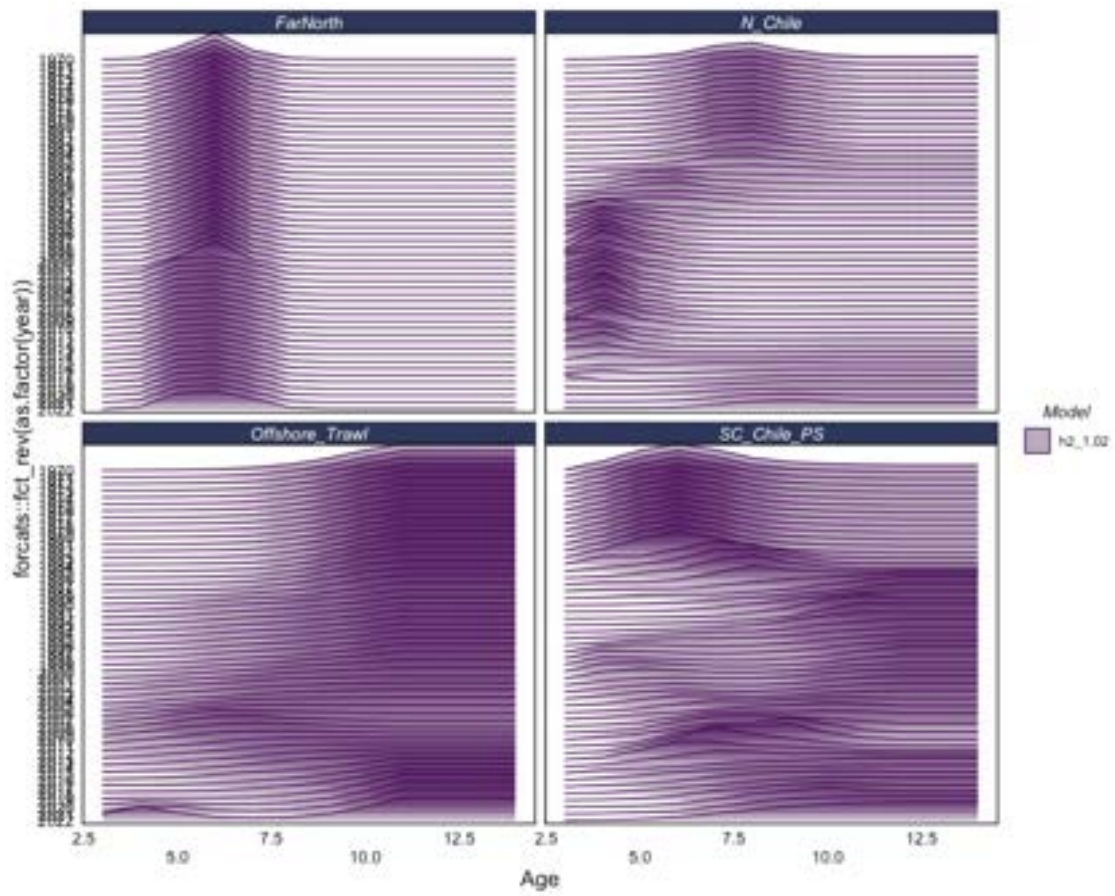


Figure A10.35: Estimates of selectivity by fishery over time for Model h2_1.02 (two-stock hypothesis).

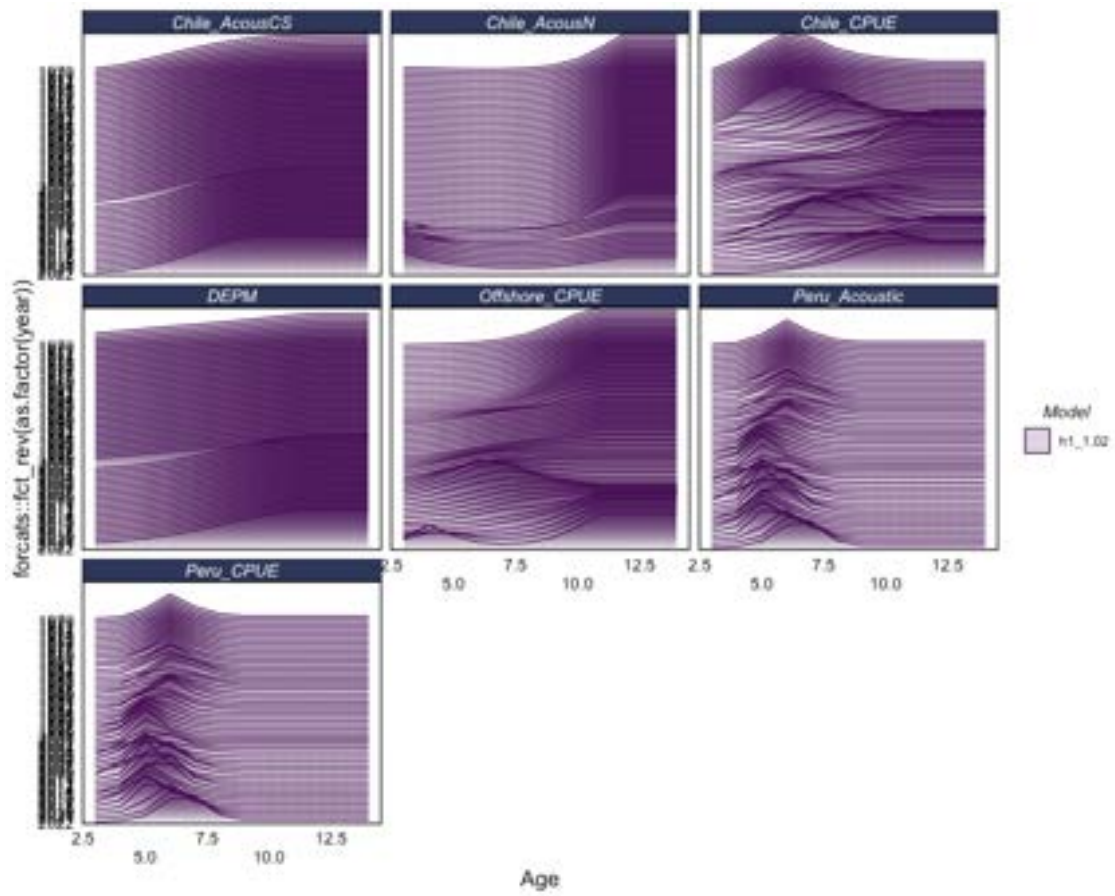


Figure A10.36: Estimates of selectivity by survey over time for Model h1_1.02 (single-stock hypothesis).

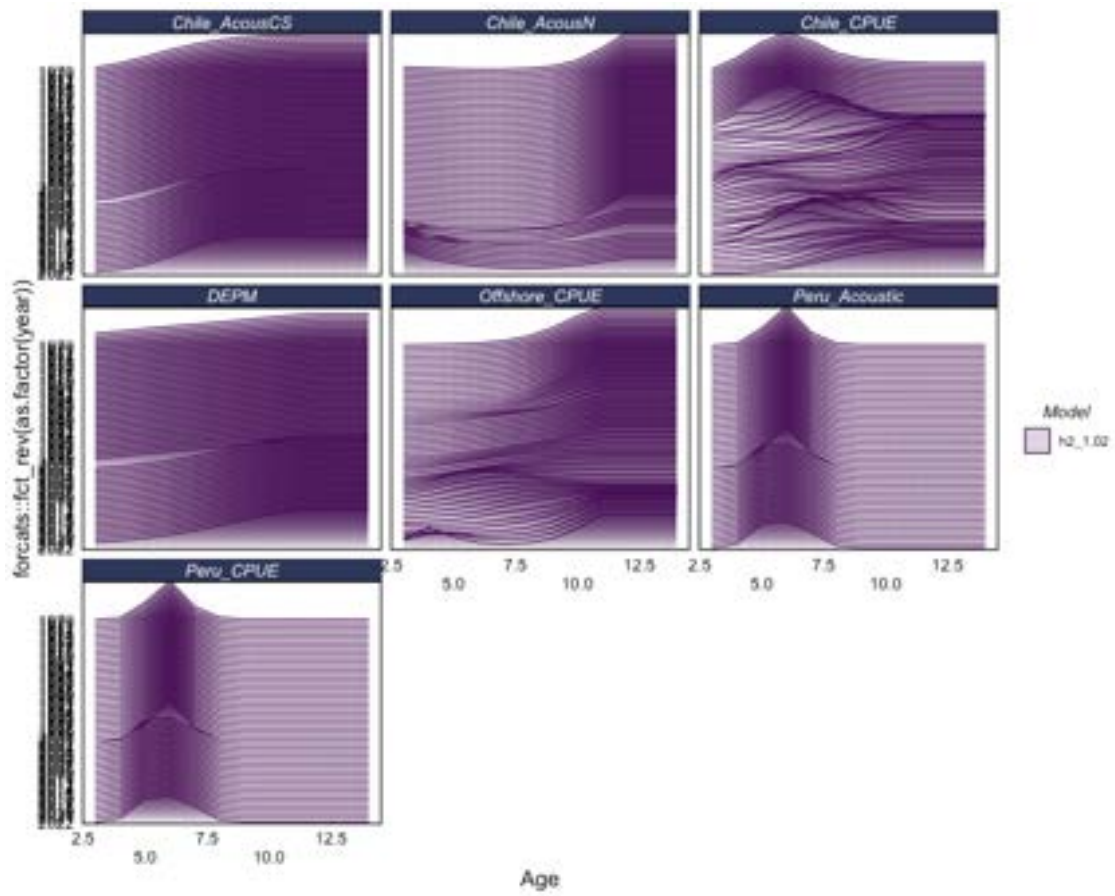


Figure A10.37: Estimates of selectivity by survey over time for Model h2_1.02 (two-stock hypothesis).

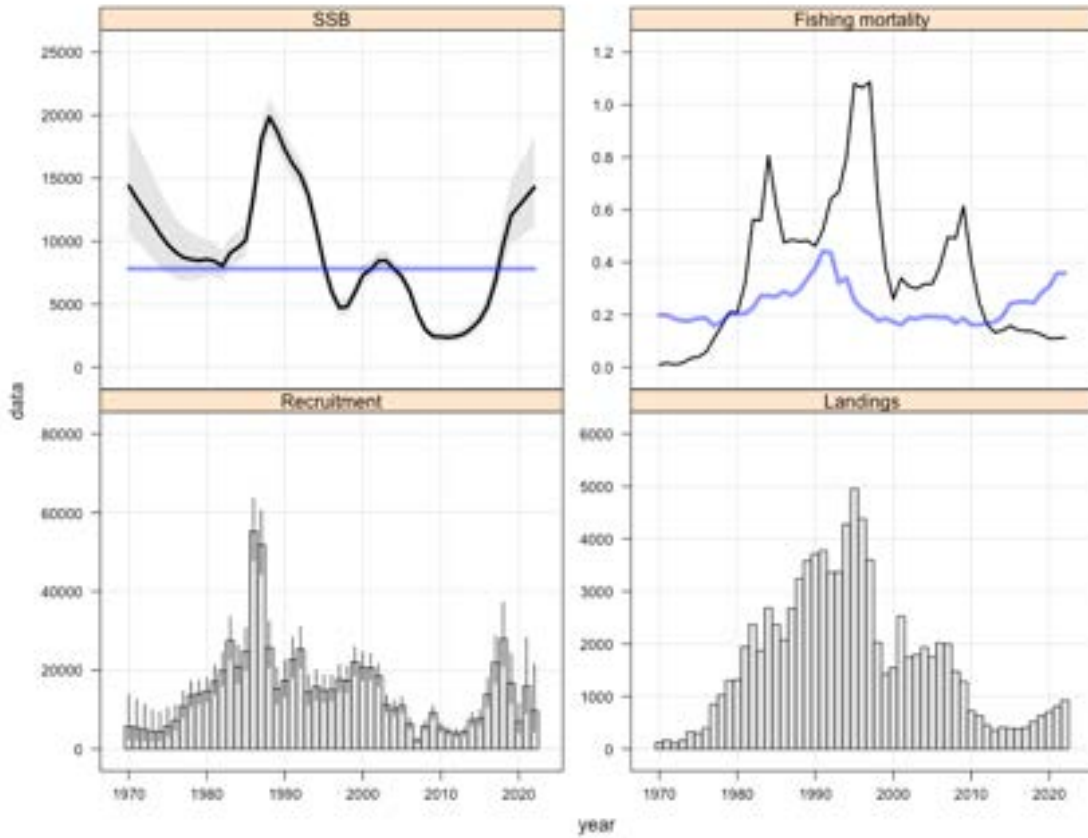


Figure A10.38: Model h1_1.02 (single-stock hypothesis) summary estimates over time showing spawning biomass (kt; top left), recruitment at age 1 (millions; lower left), total fishing mortality (top right), and total catch (kt; bottom right). Blue lines represent the average B_{MSY} over the most recent ten years (upper left) and dynamic estimates of F_{MSY} (upper right).

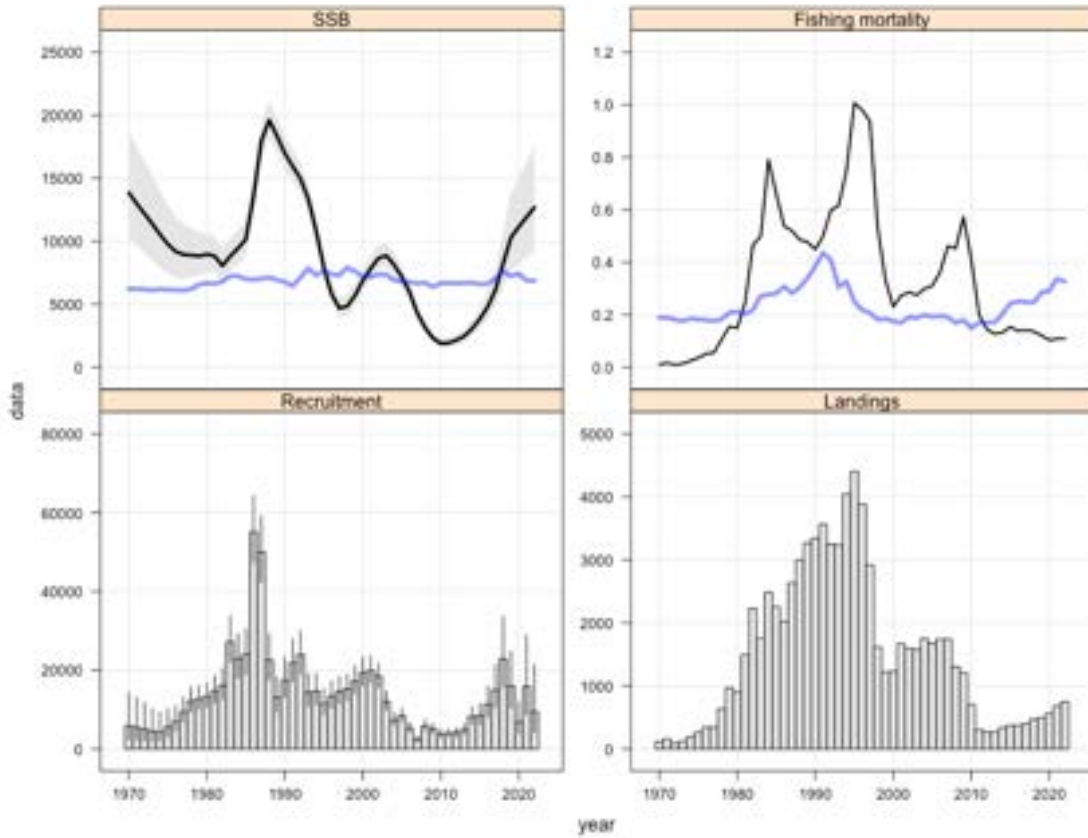


Figure A10.39: Model h2_1.02 (two-stock hypothesis) summary estimates over time showing spawning biomass (kt; top left), recruitment at age 1 (millions; lower left), total fishing mortality (top right), and total catch (kt; bottom right) for the south stock. Blue lines represent dynamic estimates of B_{MSY} (upper left) and of F_{MSY} (upper right).

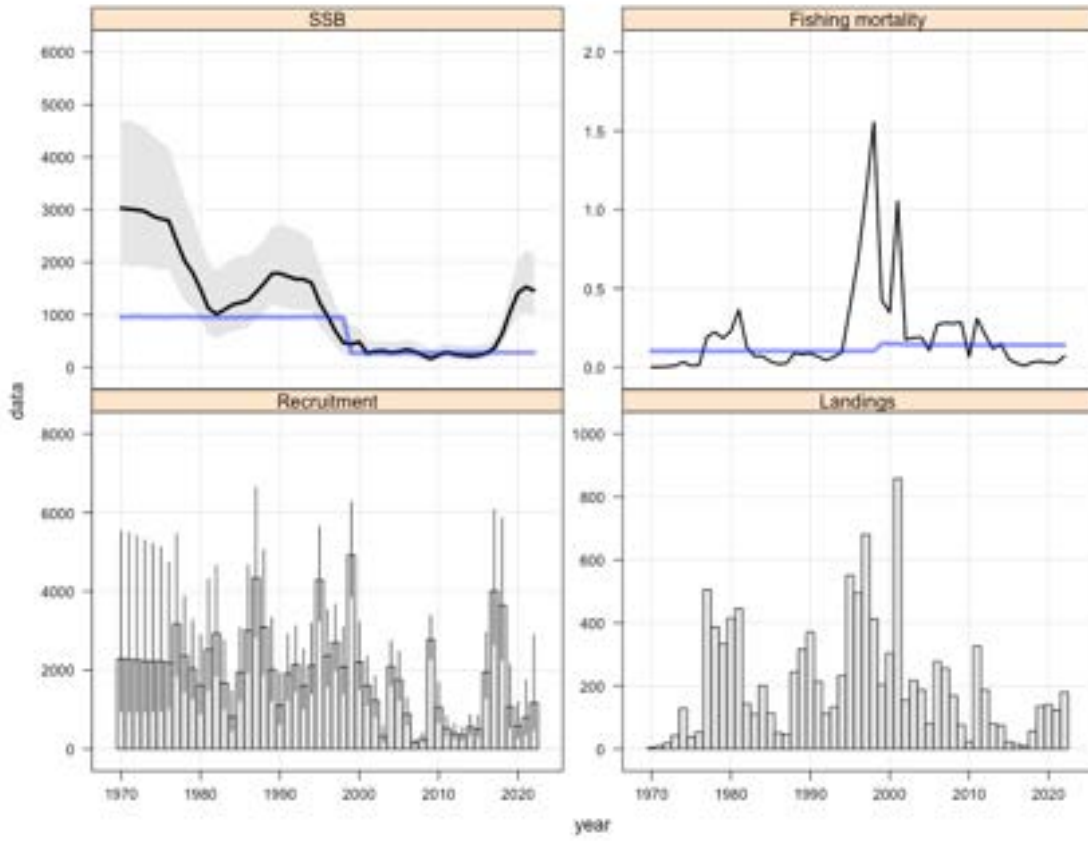


Figure A10.40: Model h2_1.02 (two-stock hypothesis) summary estimates over time showing spawning biomass (kt; top left), recruitment at age 1 (millions; lower left), total fishing mortality (top right), and total catch (kt; bottom right) for the far north stock. Blue lines represent dynamic estimates of B_{MSY} (upper left) and of F_{MSY} (upper right).

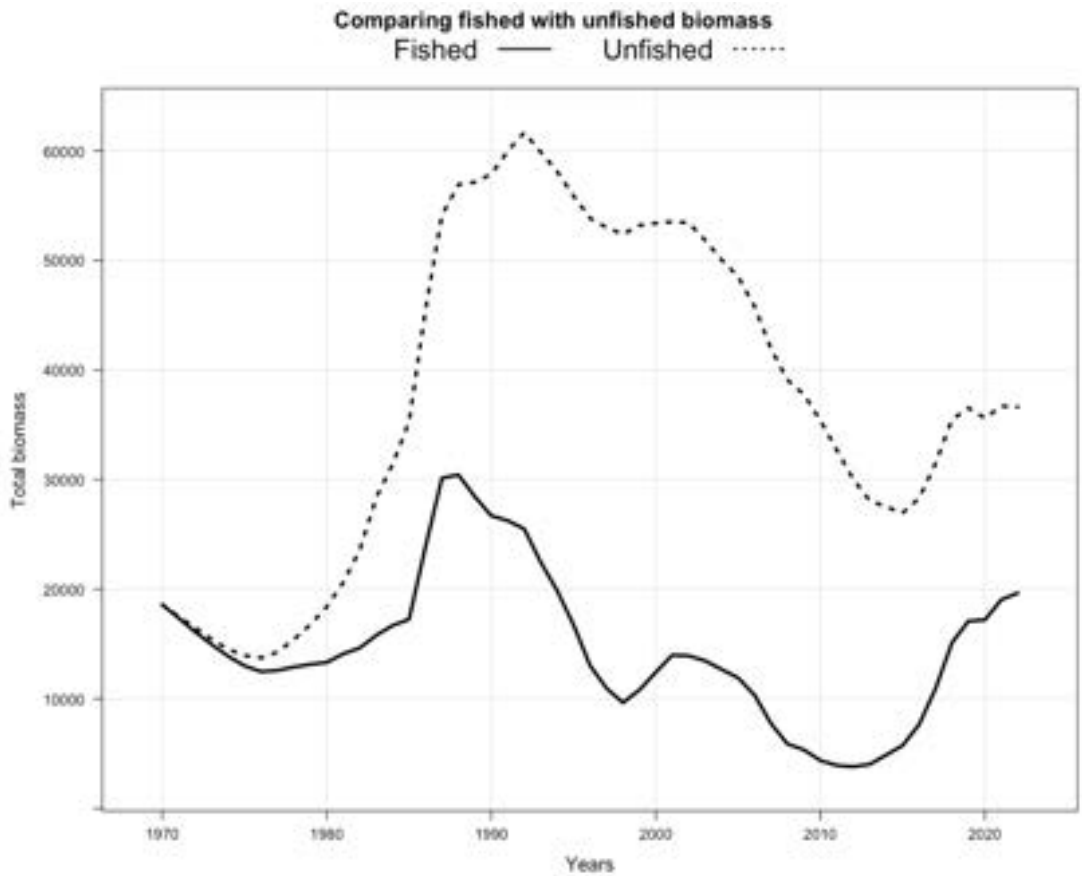


Figure A10.41: Model h1_1.02 (single-stock hypothesis) results for the estimated total biomass (solid line) and the estimated total biomass that would have occurred if no fishing had taken place (dotted line), beginning in 1970.

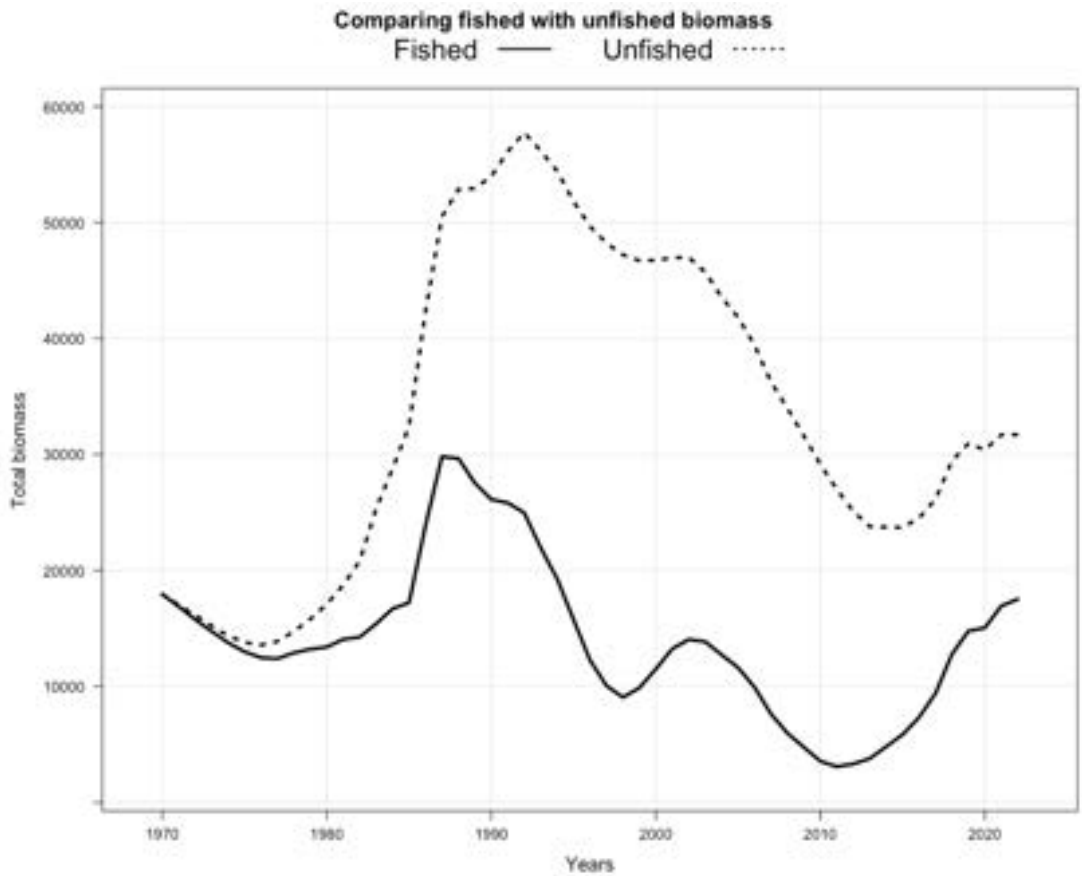


Figure A10.42: Model h2_1.02 (two-stock hypothesis) results for the estimated total biomass (solid line) and the estimated total biomass that would have occurred if no fishing had taken place (dotted line) for the south stock, beginning in 1970.

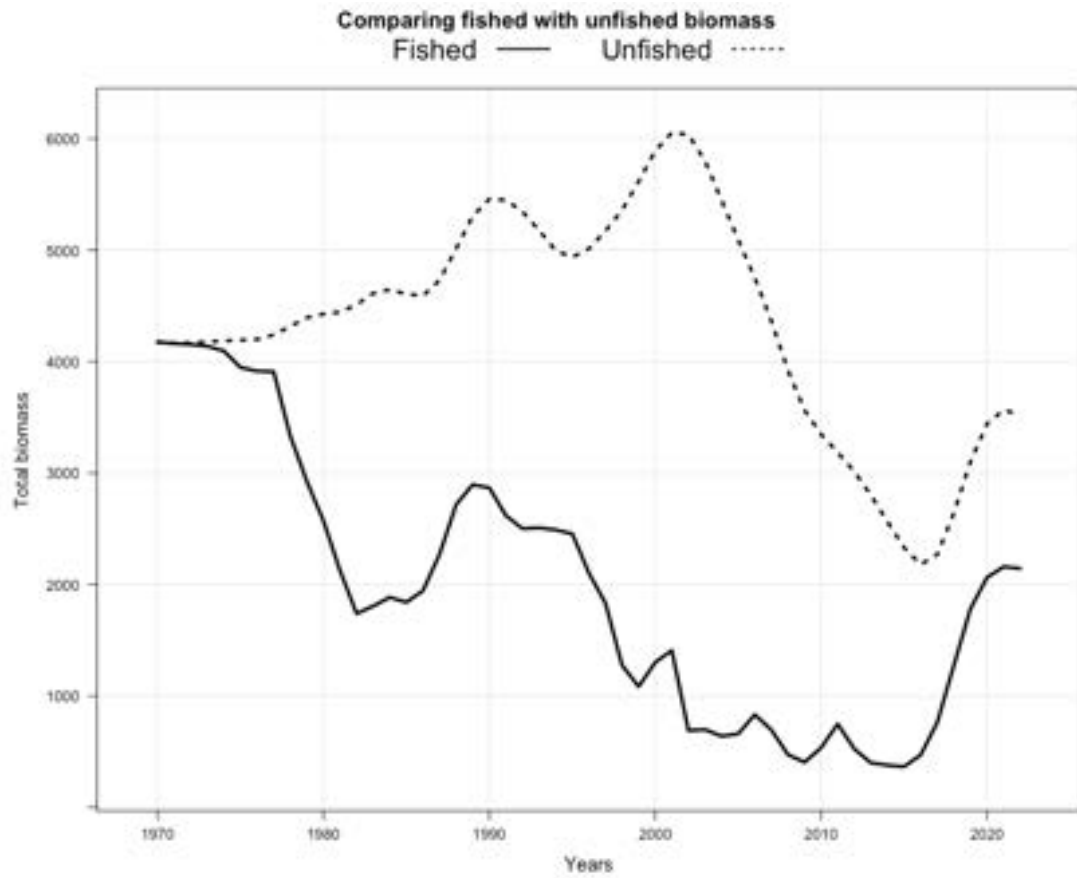


Figure A10.43: Model h2_1.02 (two-stock hypothesis) results for the estimated total biomass (solid line) and the estimated total biomass that would have occurred if no fishing had taken place (dotted line) for the far north stock, beginning in 1970.

**5th Meeting of the Commission
Adelaide, Australia, 18 to 22 January 2017**

COMM 5 – Report

1. OPENING OF MEETING

Senator Anne Ruston, Assistant Minister for Agriculture and Water Resources (Australia) welcomed delegates to Adelaide (ANNEX 11a) and explained the interest and involvement of Australia in international fisheries matters. The Assistant Minister commended the Commission on its important work to date and encouraged cooperation to ensure the conservation and sustainable management of fisheries resources under the Convention, including the importance of good science and a robust legal framework, and the need for implementing state of the art technology in fisheries management, such as electronic monitoring of fishing activities and catches.

The Chairperson of the Commission then opened the meeting and highlighted the priorities and challenges that the Commission would address during this meeting (ANNEX 11b). The Secretariat informed delegates about the meeting facilities, safety procedures and other logistical matters.

a. Adoption of Agenda

The Commission adopted the provisional agenda (ANNEX 1) without any changes. Delegates also agreed to the tentative time table introduced by the Chairperson with the understanding that it would be adjusted as required during the meeting.

2. MEMBERSHIP

a. Status of the Convention

The Depositary (New Zealand) provided an update of the status of the Convention (COMM5-Doc09) and reported that with the withdrawal of Belize, which became effective on 1 May 2016, the Commission currently had 14 Members.

b. Participation in the taking of decisions by the Commission

In accordance with Article 15.9 of the Convention, the Executive Secretary informed the Commission that no Members were in arrears by more than two years. She also reported that no representatives from Ecuador were registered for this meeting and that therefore the quorum for the decision-making of the Commission, in accordance with Rule of Procedure 7.2, was seven.

3. SCIENTIFIC COMMITTEE (SC)

a. Report of the Committee

The Chairperson of the SC presented the report and scientific advice of the 4th SC meeting that was held 10 to 15 October 2016 in The Hague, Kingdom of the Netherlands (SC4-Report) (and the preceding Jack mackerel stock assessment workshop). Regarding Jack mackerel, the SC recommended that the Commission should aim to maintain 2017 and 2018 catches for the entire Jack mackerel range in the southeast Pacific at or below 493 000 tonnes. However, should indicators of recruitment continue to be positive (as will be evaluated at SC05), increasing the TAC in 2018 may be appropriate. The SC also noted that further progress has been made on the development of stock assessment models for the eight stocks of orange roughy in the SPRFMO Area; the SC anticipates that more comprehensive advice may be available in the coming year. Furthermore, the SC

recognised progress in the prediction and mapping of VMEs and supports moving towards spatial management. With regard to squid, the SC advised that the information specified in Annexes 1 to 6 of CMM 4.02 is the minimum necessary for it to undertake effective monitoring and assessments for stocks in the Convention Area and commented on a number of other requirements for squid data recording and reporting. In addition, the SC took note of new methods of fishery observation, such as electronic monitoring, studying fishing fleets with trained captains and crew and vessel self-sampling, none of which are currently addressed in CMM 4.02.

Members stated that there was a need to review the observer coverage of all fisheries. Regarding squid, it was noted that squid is a straddling species and that squid assessment will require data from the EEZ of coastal States. Members also commented the need to clarify the detail and format of squid data for scientific purposes.

Members discussed the need to provide sufficient funding for the work of the SC, including the provision of contracted experts to scientific meetings, convening scientific workshops or carrying out specific projects to address SPRFMO requirements and priorities. In some cases, funding could be provided by Members and CNCPs, in others the Commission should ensure to include such activities in its budget. In addition, the Commission requested that the SC provide a consolidated list of recommendations at the end of its report.

The Commission adopted the report of the SC and in so doing, agreed the following:

- that activities such as Jack mackerel age-determination workshops and age validation work continue to be pursued;
- to maintain 2017 catches for the entire Jack mackerel range in the southeast Pacific at or below 493 kt;
- to remind all Members and CNCPs that issues of data confidentiality are provided for in CMM 4.02 and this may not be used as a reason for failure to submit data to the Secretariat;
- to commence a data recovery initiative for historical squid fishing. The data recovery should provide data that is consistent with the specifications of Annex 4 of CMM 4.02 to the extent possible;
- to acknowledge the ongoing work to provide verification of fisheries vessel data;
- to request the SC to explore whether electronic monitoring, studying fleets and self-sampling or a combination thereof can provide for collection and verification of fisheries vessel data as part of a wider observer programme;
- that SPRFMO continues providing technical support to the Jack mackerel assessment and that members continue to commit resources toward assessment activities and capacity building.

The Commission deferred a decision on the following recommendations (addressed further under item 6 below):

- that the Commission discuss and consider amending the list of “other species of concern” in Annex 14 of CMM 4.02 to include deep-sea sharks in the SPRFMO Convention Area categorized as critically endangered, endangered, vulnerable, or near threatened on the IUCN Red List. Annex 5 of SCO4-Report contains the current IUCN red-listed deepwater shark species and CITES appendix II relevant species;
- that the Commission amend CMM 4.02 to:
 - avoid confusion for Members and CNCPs regarding the use of the same templates for data recording and reporting;
 - allow for an extension in the timing of data submission in those cases where the Members and CNCPs do not yet hold this info for all vessels in their fleets and that an anticipated submission date is provided.

The Commission requested that the Scientific Committee Chairperson coordinate the drafting of the 2017 Workplan for the Scientific Committee. The Commission requested that this and future workplans also include medium-term activities, e.g. specific research projects. The Commission adopted the workplan of the Scientific Committee (ANNEX 3).

4. FINANCE AND ADMINISTRATION COMMITTEE (FAC)

a. Report of the Committee

The report of the FAC was considered (FAC4-Report) and the recommendations of the FAC were adopted, except that it was decided to reduce the amount allocated to the contingency fund to 25 000 NZD.

b. Budget Contribution Formula

The Commission noted the discussion held in FAC and decided that the issue be considered again at the 2018 Annual Meeting.

c. Budget

The Commission amended the budget to include 225 000 NZD for costs associated to the recruitment procedure of the position of Executive Secretary. The adopted budget thus was 1 169 000 NZD (ANNEX 4). It was decided to use part of the accumulated surplus account to cover the additional costs. With this, the Commission adopted the financial contributions for the year 2017-18 as recommended by the FAC, except that the “other funding” referred to in the contributions table was increased to 292 803 NZD (ANNEX 4).

d. Date and Venue of the next meeting of the Commission

The Commission welcomed the offer by Peru to host the next Annual Meeting in Lima. The date for the Sixth Commission Meeting was agreed to be 30 January to 3 February 2018 and for the CTC 26 to 28 January 2018.

5. COMPLIANCE AND TECHNICAL COMMITTEE (CTC)

a. Report of the Committee

The Chairperson of the CTC presented the CTC report (CTC4-Report) and recommendations of the CTC Meeting held from 14-16 January 2017 in Adelaide, Australia. In addition to the items reported below, the CTC elected a new Chairperson, Ms. Jihyun Kim (Korea). The Commission also noted that the Vice-Chairperson elected by the CTC was unexpectedly no longer available for the position. Therefore, the Commission endorsed the election of Mr. Luis Molledo (EU) as Vice-Chairperson of the CTC.

In summary, the recommendations by the CTC to the Commission were the following:

- VMS. The CTC recommended adopting the advice provided by the VMS WG in relation to issues of polling, hosting, and a VMS service provider (Annex 5 of the CTC4-Report).
- OPWG. The CTC recommended that the OPWG continue its work intersessionally under the Terms of Reference specified in Annex 6 of the CTC Report.
- CMM 4.02. Some Members questioned whether transshipment data for squid had to be reported in accordance with CMM 4.02. The CTC concluded that paragraph 1(e) was unclear and recommended to clarify this paragraph.
- CMM 4.04. The CTC agreed to recommend the addition of the term “/or” in paragraph 4, first line after “and”, so that the first sentence of that paragraph would read “*On the basis of the information received pursuant to paragraph 2 and/or any other suitably documented information at his/her disposal, ...*”. In addition, the CTC recommended that the deadlines for submission of information in paragraphs 2, 4 and 7 be revised.
- CMM 3.05. The CTC recommends to review the time requirement of 36 hours advance notification for transshipment of Jack mackerel or demersal resources.

- Collaboration with other RFMOs. The CTC agreed that participation in the meetings of other organisations or other activities that could incur costs should be decided on a case-by-case basis and would be facilitated by the existence of an Arrangement or MoU. The CTC recommended referral of the matter to the Commission for further consideration.

The Commission adopted these recommendations from the CTC and proceeded to discuss the open items under appropriate agenda items below. The Commission recognised the generous contribution of EUR 100 000 from the EU for the development of a SPRFMO VMS.

b. Final Compliance Report

The Commission considered the Provisional Compliance Report provided by the CTC (CTC4-Doc07) and adopted the Final 2017 Compliance Report (ANNEX 5).

c. 2017 Final IUU List

In accordance with CMM 4.04, paragraph 11, the Commission reviewed the Provisional IUU List developed by the CTC (CTC4-Doc09).

The Commission took note of the CTC's recommendation to request the Secretariat to include the vessel PAMYAT KIROVA on the Draft IUU List 2018, in the understanding that the Russian Federation will undertake a thorough investigation and apply appropriate sanctions to the vessel. The Russian Federation also expressed its strong commitment to report within 180 days after the end of the annual Commission Meeting.

With regard to the vessel TAVRIDA, Members encouraged the Russian Federation to explore the possibility of removing the vessel from the IUU List during the intersessional period in accordance with CMM 4.04, subject to sufficient information being provided to the Commission.

The Commission acknowledged the progress made by Peru regarding the sanctioning process with respect to the vessel DAMANZAIHAO. The Commission expressed a willingness to engage constructively with Peru regarding an intersessional request under paragraph 18 of CMM 4.04 following the conclusion of this process and effective action taken by Peru in respect of this vessel.

The 2017 Final IUU list was adopted retaining all vessels on the 2016 IUU List without any additions (ANNEX 6).

On related matters, the Commission discussed information from the CTC on the case of the vessel TRONIO (not included in the 2017 Draft IUU List). Some Members noted that an investigation report had not yet been provided by the flag State, and regarded the fine of €30 000 as inadequate. In light of this, some Members indicated an intention to include the vessel TRONIO in the 2018 Draft IUU List.

d. Status of Cooperating non-Contracting Parties (CNCPs)

Applications for status of CNCP are compiled in CTC4-Doc11-Rev.1. The Commission reviewed the recommendations made by the CTC and agreed to renew the CNCP status for Liberia and the USA. The Commission also decided to renew the CNCP status of Panama one more time, noting with deep concern the serious issue of non-compliance by Panama and its absence from the current Commission meeting. The Commission agreed that, in deciding to approve Panama's application for CNCP status in 2017, an application by Panama for CNCP status in 2018 should meet the expectations in ANNEX 7 to this Report if it is to be approved.

6. CONSERVATION AND MANAGEMENT MEASURES (CMMs)

- CMM 4.01 (Jack mackerel)

- **Jack mackerel allocations (ANNEX 8a).** The Commission convened a WG, chaired by Mr. Frank Meere (Australia) to address the allocation of the additional 33,000 tonnes of catch recommended by the Scientific Committee and endorsed by the Commission. The Chairperson reported on the discussions to the Commission and stated that participants considered Ecuador and Peru's existing allocations and requests for additional quota to reflect their new status as Commission Members. In addition, the WG addressed a request from Cuba for an allocation in 2017 and a request from Cook Islands to record their interest for a future allocation.

The Working Group noted that changes to paragraph 4 of CMM 4.01 were needed, as two Members who have now been allocated quota in 2017 are not included in Table 1 of CMM 1.01. The Chairperson of the JMWG highlighted that the results were only possible because of the considerable goodwill of the participants.

The Commission thanked the Working Group and adopted by consensus the amendments to CMM 4.01.

- **COMM5-Prop01.** The Jack mackerel WG also addressed a proposal submitted by Vanuatu, seeking to encourage greater utilization of the available quota. The meeting agreed that the proposal had merit but that more consideration needed to be given to its possible interaction with existing decisions. Members were encouraged to work intersessionally to address these issues and the Secretariat was asked to assist with models which illustrated the implementation of the proposal.

- **CMM 4.02 (data standards)**

- **COMM5-Prop02 (ANNEX 8b).** The Commission discussed and adopted revision 1 of this proposal. The EU explained that it added Porbeagle sharks to the list of species in Annex 14, and that work would continue on the basis of Annex 5 of the SC-04 Report.
- **SC Report (ANNEX 8c).** Members addressed the issue of squid data submission for scientific assessment purposes, based on the drafting suggestion from the Scientific Committee to paragraph 1(e) (COMM5-WP03). The Commission agreed to amend paragraph 1(e) as follows:

(e) compile data on fishing activities and the impacts of fishing and provide these in a timely manner to the Secretariat of the South Pacific Regional Fisheries Management Organization (SPRFMO) using the SPRFMO data submission templates. The data under this subparagraph will be used for the assessment and monitoring of stocks. Members and CNCPs will provide by the 30th June, their previous (January to December) year's data on fishing activities and the impacts of fishing described in sections 1b) – 1d) above.

Also in relation to paragraph 1(e) of CMM 4.02, the question was raised during the CTC meeting regarding whether transshipment data for squid had to be reported in accordance with this paragraph. The CTC recommended that the Commission clarify this paragraph in the presence of the SC Chair. The SC Chair responded that squid transshipment data should be provided in as much detail as possible for the purpose of analysis and the verification of data from other sources.

The Commission requested that the SC clarifies and defines the parameters of the “exceptional circumstances” and provides more explicit guidance to the Commission regarding the provision of data under such circumstances.

- **CMM 2.06 (VMS) (COMM5-Prop03).** See agenda item 7.
- **CMM 4.03 (bottom fishing).** New Zealand introduced the COMM5-Info5 which reports on progress towards the development of a revised bottom fishing CMM. The Commission welcomed the initiative taken by New Zealand and Australia in this regard and encouraged the involvement of other interested Members and observers. DSCC noted the agreement of the SC that a more prescriptive bottom-fishing CMM for all Members may be easier to implement and control, more consistent, and more likely to work effectively. Australia offered to host a scientific workshop in 2017 to aid the development of a revised bottom fishing measure. It was recommended to exchange information with other RFMOs and projects addressing similar issues to develop a consistent approach for the assessment and management of demersal fisheries. The Commission agreed to extend the application of CMM 4.03 until the close of the Annual Meeting 2018 (ANNEX 8e).
- **CMM 4.04 (IUU).** The Commission adopted the CTC's recommendation to insert “/or” in paragraph 4 as reported under item 5 above. The Commission also adopted amendments to paragraph 8 and subsequent amendments regarding “*additional information*” proposed in CTC4-WP06 (ANNEX 8f). However, the Commission at this meeting did not agree to amend the deadlines for submission as proposed in CTC-WP06.
- **CMM 3.05 (transshipment).** The Commission considered COMM5-WP01 to revise the 36 hour time requirement for the advance notification of transshipments of Jack mackerel and demersal species and adopted Revision 2 of this document (ANNEX 8g).
- **CMM 2.07 (port inspections).** The Commission considered Revision 4 of CTC4-WP01 and agreed to the proposed amendments (ANNEX 8h).
- **CMM 4.09 (seabirds).** The Commission considered CTC4-WP02 and adopted Revision 3 of this document (ANNEX 8i).
- **CMM 4.10 (CMS).** The Commission considered CTC4-WP03 and adopted Revision 2 (ANNEX 8j).

7. VESSEL MONITORING SYSTEM

The VMS WG, chaired by Ms. Kerrie Robertson (Australia) continued its work during the Commission meeting, focusing on COMM5-Prop03 which addresses revisions of CMM 2.06.

The Commission noted the good progress made by the VMS working group through the intersessional period, the CTC and the Commission Meeting. The Commission adopted a revised CMM (ANNEX 8d) which allowed the Secretariat to enter into contractual arrangements to establish the Commission VMS, as well as requirements for manual reporting and security and confidentiality requirements. The CMM included the key information to allow the Commission VMS to be established but the working group could not resolve all issues relating to the establishment of the Commission VMS.

Many Members reiterated the importance of developing requirements for access to VMS data as a fundamental element of an effective VMS. The Commission requested that, as a priority, the VMS Working Group continue to work intersessionally with a view to finalising the outstanding issues related to the implementation and operation of the Commission VMS and adopting improvements to CMM 2.06 in 2018. Using the seventh revision of COMM5-Prop03 (square bracketed text see ANNEX 9b) as the basis for discussions, the Commission agreed that the intersessional work programme for the VMS Working Group include, *inter alia*, data access arrangements and measures to prevent tampering. In support of this, the Commission also agreed to seek advice from the Scientific Committee in relation to the use of VMS data for scientific purposes.

To facilitate smooth implementation of the Commission VMS, the Commission requests that all Members and CNCPs continue to cooperate with the Secretariat and the VMS vendor throughout the intersessional period to address any practical and/or technical work to ensure that vessels flying

their flag are successfully reporting to the Commission VMS. The Commission noted that the confidentiality requirements in CMM 2.06 also apply to the VMS vendor.

The Commission tasked the Executive Secretary with developing and implementing the contract with CLS, taking into account the guidance provided by the CTC and FAC, and further requested that the Secretariat seek legal advice prior to entering into any contractual arrangements with CLS. In addition to the CTC's advice, the Commission requested that the Secretariat and vendor explore cost effective solutions to training, including for example the use of web-based technologies.

The Commission provided the following guidance for the contract; that all satellite airtime costs in 2017 will be responsibility of the flag State (or flagged vessels) for their flagged vessels in accordance with the CTC recommendation. The Commission asked the VMS WG to address the matter of who bears the cost for satellite airtime as matter of priority.

The Commission also agreed to extend the VMS Working Group for one more year (ANNEX 9a).

8. SPRFMO OBSERVER PROGRAMME

The Commission recognised the intersessional work of the Observer Programme Working Group. It was agreed that there were still several outstanding issues that needed to be addressed before adopting a conservation and management measure for this purpose. Therefore, the Commission renewed the mandate of the OPWG under the leadership of Mr. Michael Tosatto (USA) to continue the work during 2017 under the Terms of Reference included in Annex 6 of the CTC4-Report.

9. SPRFMO REVIEW

Article 30 of the Convention provides for a regular review of the effectiveness of the conservation and management measures adopted by the Commission in meeting the objective of the Convention and the consistency of such measures with the principles and approaches in Article 3. Such reviews may include examination of the effectiveness of the provisions of the Convention itself and shall be undertaken at least every five years.

The Convention entered into force in August 2012 and the first Commission Meeting was in January 2013. The Secretariat briefly introduced COMM5-Doc03 as a background document on review processes and approaches recommended by FAO and applied by other RFMOs. The European Union offered to work intersessionally on Draft Terms of Reference for the Review. The Commission agreed that while SPRFMO is a young organisation, it is timely to undertake a "health check" and that this should be independent, transparent and inclusive. The Commission agreed to discuss this matter at the next Commission Meeting and encouraged an intersessional collaboration on the Terms of Reference for the Review and noted the requirement to include an independent expert and the associated budgetary implications.

10. FUTURE WORK PROGRAMME OF THE COMMISSION

No matters were raised under this agenda item.

11. ANNUAL REPORT OF THE COMMISSION (Article 29)

The Executive Secretary presented the draft Annual Report (COMM5-Doc04) for adoption by the Commission. This report addressed relevant decisions by the SPRFMO in 2016 for the purpose of informing the UN and FAO. The Commission agreed to adopt the report (ANNEX 10).

12. OTHER MATTERS

- Collaboration with other Organisations. At its 2016 meeting, the Commission requested that the Secretariat assess and advise the Commission on options for MoUs with neighbouring or overlapping RFMOs. The Commission took note of COMM5-Doc05, which was presented to the CTC, and voiced general support of the comments on this item in the CTC report.

The Commission invited attending observers from other organisations to address the Commission. The Executive Secretaries of CCAMLR and SIOFA took the floor as well as the representative of WMO. These interventions are in ANNEX 11.

- The USA delegation announced that the process of ratification of the SPRFMO Convention by the USA had just been concluded and that the instrument was deposited with the Depositary, New Zealand, on 19 January 2017 in accordance with Article 38 of the Convention. The Commission welcomed this announcement with enthusiasm.

13. OFFICE HOLDERS

- The first terms of the Chairperson, Mr. Gordon Neil (Australia), and the Vice-Chairperson, Mr. Osvaldo Urrutia (Chile), of the Commission are concluded at the close of the 5th Commission Meeting. The Commission elected Mr. Osvaldo Urrutia (Chile) as new Chairperson of the Commission and Mr. Hector Soldi (Peru) as Vice-Chairperson.

The Commission thanked the outgoing Chairperson for his dedication and leadership during his two years in the position.

- The Executive Secretary, Ms. Johanne Fischer, informed the Commission that at this time she could not confirm her availability for a second term of her appointment (ANNEX 11c). She added that her contract ends in June 2018 and that it was her intention to fulfil this term. The Commission tasked the Chairperson to develop Terms of Reference for the selection procedure of a new Executive Secretary to be agreed intersessionally.

14. MEETING REPORT

The draft meeting report was prepared during the meeting by the Chairperson, assisted by the Secretariat, and presented to the Commission on the last day of the meeting for its consideration.

The report was adopted on 22 January 2017 at 17:55 hrs.

15. CLOSE OF MEETING

The meeting was closed on 22 January 2017 at 18:10 hrs.

COMM 5 - Report - ANNEX 1

AGENDA

(COMM5-Doc01)

1. OPENING OF MEETING

- a. Adoption of agenda

2. MEMBERSHIP

- a. Status of the Convention
- b. Participation in the taking of decisions by the Commission (Article 15.9)

3. SCIENTIFIC COMMITTEE

- a. Report of the Committee
- b. 2017 Workplan for the Scientific Committee

4. FINANCE AND ADMINISTRATION COMMITTEE

- a. Report of the Committee
- b. Budget contribution formula
- c. Budget
- d. Date and Venue of the next meeting of the Commission

5. COMPLIANCE AND TECHNICAL COMMITTEE

- a. Report of the Committee
- b. Final Compliance Report
- c. 2017 IUU List
- d. Status of Cooperating non-Contracting Parties

6. CONSERVATION AND MANAGEMENT MEASURES

7. VESSEL MONITORING SYSTEM

8. SPRFMO OBSERVER PROGRAMME

9. SPRFMO REVIEW

10. ANNUAL REPORT OF THE COMMISSION (Convention Article 29)

11. FUTURE WORK PROGRAMME OF THE COMMISSION

12. OTHER MATTERS

- a. Collaboration with other organisations

13. OFFICE HOLDERS

- a. Chairperson and Vice-Chairperson
- b. Executive Secretary

14. MEETING REPORT

15. CLOSE OF MEETING

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COMM 5 - Report - ANNEX 3

SC Workplan (2017)

(COMM5 – WP04)

The focus of the SC's work plan are guided by Article 10 of the SPRFMO Convention. In summary, SC functions are to:

- (a) *plan, conduct and review scientific assessments of the status of fishery resources;*
- (b) *provide advice and recommendations to the Commission and its subsidiary bodies based on such assessments;*
- (c) *provide advice and recommendations to the Commission and its subsidiary bodies on the impact of fishing on the marine ecosystems in the Convention Area;*
- (d) *encourage and promote cooperation in scientific research; and*
- (e) *provide such other scientific advice to the Commission and its subsidiary bodies as it considers appropriate.*

Jack mackerel

Regarding the scientific advice for 2018 on Jack mackerel stock status, the Commission endorses the research priorities outlined in SC-04 and specifically requests the Scientific Committee undertake the following tasks.

Task	Objectives
Jack mackerel assessment Intersessional work including data call in May with follow-up in July; update finalized at the SC	Conduct an “update” of the jack mackerel stock assessment. Advice from these results should be based on application of SCO2’s proposed variant of the rebuilding plan adopted by the 2nd Meeting of the Commission. Details include: <ul style="list-style-type: none"> • An evaluation of alternative stock structure hypotheses • Provide progress update on age determination protocols for jack mackerel • Determine if TAC advice should be revised from 493kt maximum recommended for 2018 (perhaps by creating an ensemble model of projection scenarios provided; e.g., in Table 1 of SCO4 report). • Evaluate the applicability of acoustics data collected from fishing vessels with a view towards including in the next “full” assessment (e.g., including agreed target strength estimates). • Further developments of oceanographic data and modelling to characterize jack mackerel habitat.

Squid

Since the SCO4 appointed a squid working group (Dr Gang Li as chairperson) this was broken out as a separate activity.

Task	Objectives
Squid assessment and data requirements Intersessional China, Peru, Chile	<ul style="list-style-type: none"> • Further develop assessment approaches • Identify data needs to achieve spatially integrated assessment • Historical catch data recovery is required • Consider impact of incomplete spatial coverage (e.g., in-zone and SPRFMO area) and/or spatially disaggregated approaches

Deepwater stocks

Task	Objectives
Toothfish review Intersessional, NZ	<ul style="list-style-type: none"> Review data from year 2 of project on exploratory demersal longline fishing for toothfish outside its footprint. Note linkages with CCAMLR research and tagging.
Orange roughy assessment Intersessional NZ, Australia	<ul style="list-style-type: none"> Ensure that catch series are updated to include all catch for orange roughy from study areas and finalise estimates of initial biomass, productivity, and stock status for relevant orange roughy sub-stocks. Consider the recent global review report of ORH biology, stock assessment, and approaches to management.
Modelling VME taxa Intersessional, NZ	<ul style="list-style-type: none"> Report on relevant data and model developments to predict VME indicator taxa
Fishing impact on VME Intersessional, NZ, Chile and Australia	<ul style="list-style-type: none"> Update data available and evaluate the impact of fishing activities on VMEs and EBSAs in the convention area and evaluate spatial management options, including using stakeholder workshops.
CMM 4.03, bottom fishing measure Intersessional, NZ, Chile and Australia	<ul style="list-style-type: none"> Review and recommend modifications, if necessary, to CMM 4.03, the bottom fishing measure based on results of stock assessments, VME modelling and spatial management options.
Demersal Species Assessment Framework Intersessional, Australia, NZ, DWWG	<ul style="list-style-type: none"> Draft a tiered assessment framework for demersal species based on estimable parameters and available information for potential TAC guidance in a CMM. Work towards developing limit and target reference points not inconsistent with the variety of domestic policies and international guidelines / best practices. Develop data collection proposals for increasing information available for different areas/stocks
Ecological Risk of deep water fisheries on deep water sharks Intersessional Australia	<ul style="list-style-type: none"> Draft risk assessment of the impact of deep water fishing on deep water sharks Include fishing mortality or Productivity Susceptibility Analysis Refer to the SPRFMO list of species of concern and proposed provisional additions to help rank species for ID and sampling purposes.

General Issues / reporting

Task	Objectives
Assessment requirements To be done for SC05	<ul style="list-style-type: none"> Review scientific appropriateness of observer coverage by fishery (also consider whether transshipment data would be useful for scientific purposes)
CMM 4.02, data standards Intersessional, NZ, Chile and Australia	<ul style="list-style-type: none"> Review whether the data standards are appropriate for achieving the assessment goals
Seabird monitoring	<ul style="list-style-type: none"> Evaluate the practicality of data collection programs for better understanding fishery and bird interactions in the SPRFMO convention area. This should include considerations of whether estimates of interactions or abundance can be reasonably obtained. For example, in night vs day squid fishing.
EM reporting, Intersessional EU, Australia, NZ, secretariat	<ul style="list-style-type: none"> Review electronic at-sea, study fleet, and “self-sampling” monitoring approaches and consider how each may meet or supplement information in SPRFMO’s data standard Consider practices being developed in other RFMOs

Longer term considerations

The Commission suggested (COMM4, 2016) it would be helpful if the SC develop a rolling multi-annual work plan of research priorities and associated funding needs to assist with future planning and budgeting.

The Commission recognized the following timeline identifying actions and research priorities for the period 2018-2019

2018

- Full benchmark assessment for Jack mackerel including recommendations for data weighting, model alternatives, relative spatial distribution of jack mackerel by regions, and ensemble approaches
- Further development of data limited approaches and assessment models for squid and orange roughy
- Conduct and report on simulation tests to evaluate observer coverage and management objectives.

2019

- Evaluate potential application of VMS data for assessment purposes
- Develop and execute a focussed International fishery-independent survey

COMM 5 - Report - ANNEX 4

Adopted budget and contributions for the financial year 2017-18 and forecasted budget for the financial year 2018-19

(FAC4-WP01 and FAC4-WP01 Suppl.)

Table 1: Proposed budget for the financial year 2017-18 and forecasted budget for the financial year 2018-19

Budget Items (including detailed cost estimates) ¹	Original Proposal for 2017-18	Revised Proposal 2017-18	2017 Forecast for 2018-19
Personnel Salaries (P5, P3, P2, 1.5 GS): \$550 000 ES changeover: \$200 000 ES recruitment: \$ 25 000 Insurances: \$22 000 Temporary personnel: \$25 000 Training and other: \$13 000	\$650 000	\$835 000	\$635 000
Premises and Equipment Premises: \$46 000 IT hardware: \$12 000 Other: \$10 000	\$70 000	\$70 000	\$72 000
Meetings and Travel SPRFMO SC/Annual meetings: \$70 000 Home leave: \$10 000 Other meetings: \$10 000	\$90 000	\$90 000	\$95 000
Information and Communication Telephone, internet & other IT: \$10 000 Website expenses: \$5 000 Database regular costs: \$15 000 <i>Database development: \$50 000 (2018-19)</i>	\$30 000	\$30 000	\$80 000
Other Operational Expenses Auditors: \$7 000 Printing: \$5 000 Bank and post services: \$4 000 Hospitality: \$4 000 Other: \$10 000	\$30 000	\$30 000	\$31 000
SPRFMO VMS 2017-18 only: Development: \$175 000 – \$148 000 = \$27 000 Legal Fees: \$5 000 Regular expenses Contingency (10% of annual fee): \$10 000 VMS Contractor at Secretariat: \$25 000 Annual Fee (from 2018/19): \$98 000		\$67 000	\$133 000
Regular Review		\$15 000	\$15 000
Subtotal	\$870 000	\$1 137 000	\$1 061 000
Scientific Support (see FR2 para 3)	\$12 000	\$12 000	\$20 000
Developing States (see FR2 para 3)	\$20 000	\$15 000	\$20 000
Total	\$902 000	\$1 164 000	\$1 101 000

¹ Costs estimates for sub-items are approximate and preliminary; they may be subject to changes depending on actual cost developments, emerging requirements and unforeseen circumstances.

Table 2: Contributions for the financial year 2017-18

NZD\$	Contributions	% of Total
Australia	\$68,474	5.9%
Chile	\$89,684	7.7%
China	\$225,752	19.4%
Cook Islands	\$12,060	1.0%
Cuba	\$8,657	0.7%
Ecuador	\$8,356	0.7%
European Union	\$125,399	10.8%
Faroe Islands	\$26,950	2.3%
Korea	\$43,890	3.8%
New Zealand	\$132,824	11.4%
Peru	\$29,923	2.6%
Russian Federation	\$28,221	2.4%
Chinese Taipei	\$24,674	2.1%
Vanuatu	\$46,333	4.0%
<i>Other Funding</i>	\$292,803	25.2%
Total	\$1,164,000	100%

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Final Compliance Report

(COMM5-Doc08)

The Commission adopted the CTC's Provisional Compliance report (CTC4-Doc07) without amendments.

Reporting period to which this report refers: 2015/16 (1 November 2015 – 31 October 2016)

The Conservation and Management Measures which have been assessed include:

- CMM 4.01 (Trachurus murphyi; 2016)
- CMM 4.02 (Data Standards; 2016)
- CMM 4.03 (Bottom Fishing; 2016)
- CMM 4.04 (IUU List; 2016)
- CMM 4.05 (Record of Vessels; 2016)
- CMM 2.06 (Commission VMS; 2014)
- CMM 2.07 (Port Inspection; 2014)
- CMM 1.02 (Gillnetting; 2013)
- CMM 4.09 (Seabirds; 2016)
- CMM 4.10 (Compliance Monitoring Scheme; 2016)
- CMM 3.04 (Boarding and Inspection; 2015)
- CMM 3.05 (Transshipment; 2015) – effective 1 March 2016
- CMM 4.13 (Exploratory Fisheries; 2016)
- CMM 4.14 (Exploratory Toothfish fishing; 2016)
- CMM 4.15 (Stateless Vessels; 2016)

Table 1: CTC Assessments of CMM 4.01 *Trachurus murphyi*

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Chile	Non-Compliant	Compliant	
China	Non-Compliant	Compliant	
European Union	Non-Compliant	<p>Secretariat Assessment: The April 2016 report was received 5 days late (Para 11 and 16).</p> <p>Comment by Member/CNCP: No comment</p> <p>Discussion and recommendations:</p>	Non-compliant with paragraphs 11 and 16. No further action
Korea	Non-Compliant	<p>Secretariat Assessment: The August 2016 report was received 6 days late (Para 11 and 16). Korea's annual report was received 3 weeks late (7 days prior to SC-04) (Para 18).</p> <p>Comment by Member/CNCP: No comment</p> <p>Discussion and recommendations:</p>	Non-compliant with paragraphs 11, 16 and 18. No further action
Peru	Non-Compliant	Compliant	
Russian Federation	Non-Compliant	<p>Secretariat Assessment: The 2016 Annual report was received on the 4th of October 2016 (24 days late) (Para 18).</p> <p>Comment by Member/CNCP:</p> <p>Discussion and recommendations:</p>	Non-compliant with relevant paragraph 18. No further action
Vanuatu	Non-Compliant	Compliant	
Liberia	Non-Compliant	<p>Secretariat Assessment: The implementation report suggests that Liberian reefers have conducted Jack mackerel transshipping activities during the period November 2015 – October 2016; However, the Secretariat has not received any monthly reports for that period (Para 11 and 16).</p> <p>Comment by Member/CNCP: Liberia's Implement Report previously submitted inadvertently covered the period January to December 2015, instead of 1 November 2015 – 31 October 2016. Liberia submitted her Annual Transshipment Report in June 2016; that Report detailed transshipment operations for four (4) vessels which were carried out from January to December 2015. Moreover, monthly reports for those same vessels were submitted in 2015. As of 1 December 2016, Liberia provided transshipment data for two (2) vessels (WATER PHOENIX and PRINCE OF TIDES) which transshipped squid in blocks, not <i>Trachurus Murphyi</i>.</p> <p>Discussion and recommendations:</p>	Compliant
Panama	Priority non-Compliant	<p>Secretariat Assessment: Based upon received transshipment notifications, Panama reefers were active in the Jack mackerel fishery during April, May & June. However, the June monthly report has not yet been received (Para 11 and 16) Panama has not submitted any VMS data for its reefer vessels operating during 2016 in the Jack mackerel fishery (Para 15).</p> <p>Comment by Member/CNCP: No comments</p> <p>Discussion and recommendations:</p>	Priority non-Compliant with paragraphs 11, 15 and 16. Develop a compliance action plan within 6 months.

Table 2: CTC Assessments of CMM 4.02 Data Standards

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Chile	Non-Compliant	Compliant	
China	Non-Compliant	<p>Secretariat Assessment: 2015 Pelagic Trawl data do not contain information on bycatch species (para 1e) 2015 Transshipment data do not contain information on GIS transshipments (para 1e)</p> <p>Comment by Member/CNCP: China Overseas Fisheries Association (COFA) and SHOU were authorized by the Chinese government to jointly undertake the CJM and GIS fishing activities data collection. The CJM fishing activities data were submitted to DIWG in accordance with requirements of CMM3.02. The catch recorded in logbook is by set, it is very few catch of MAS in per set (143 340kg MAS in 614 sets, average 233kg/set). Due to very few catch of non-target species, China CJM fishing vessels recorded the catch without classification in fishing log in 2015. China has already advised the vessel owner to record by-catch species in 2016.</p> <p>China requires all fishing vessels to notify the Chinese government of each transshipment of CMJ and GIS caught in the Convention area. For CMJ transshipment, China submits transshipment notification and data as required by CMM 3.05. For GIS transshipment, after receiving the transshipment request, we always check whether the unloading and receiving vessels were both included in the Record of Vessels. But it needs time for all Chinese squid jigging vessels to fully carry out the transshipment requirement. As our understanding to CMM 3.05, items 4, 5, 6, 7 and 8 under the sentence "Transshipments of <i>Trachurus murphyi</i> and demersal species caught in the Convention Area" are only applicable to transshipment of <i>Trachurus murphyi</i> and demersal species, but China will continue working on the improvement of the squid data collection.</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 1e. No further action required</p> <p>Not assessed. CTC will ask Commission to clarify ambiguity of relevant obligations</p>
European Union	Non-Compliant	Compliant	
Korea	Non-Compliant	Compliant	
Peru	Non-Compliant	Compliant	
Russian Federation	Non-Compliant	<p>Secretariat Assessment: 2015 Annual Catch Totals were extracted from the 2016 National report provided on 4 October 2016 (4 days late) (Para 1a). The 2015 Fishing activity data has not been submitted to the Secretariat yet (Para 1e). The 2015 observer data has not been submitted to the Secretariat yet (Para 2d).</p> <p>Comment by Member/CNCP: The Russian Federation agrees to provide the outstanding information within 6 months.</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 1a. No further action</p> <p>Non-compliant with paragraph 1e. Provide the outstanding information within 6 months.</p> <p>Non-compliant with paragraph 2d. No further action</p>
Vanuatu	Non-Compliant	Compliant	

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Liberia	Non-Compliant	<p>Secretariat Assessment: 2015 Transshipment data does not separate out each individual species (Para 1e).</p> <p>Comment by Member/CNCP: Corrected Transshipment Data has been provided to the Secretariat as of 1 December 2016</p> <p>Discussion and recommendations:</p>	Non-compliant with relevant paragraph 1e. Undertake a Compliance review to identify reason for non-compliance including gaps in implementation
Panama	Non-Compliant	<p>Secretariat Assessment: Panama has not provided a final compilation of its 2015 Transshipment data (Para 1e)</p> <p>Comment by Member/CNCP: No comment</p> <p>Discussion and recommendations:</p>	Non-compliant with paragraph 1e. Undertake a Compliance review to identify reason for non-compliance including gaps in implementation

Table 3: CTC Assessments of CMM 4.03 Bottom Fishing

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
European Union	Priority Non-Compliant	Compliant	
Russian Federation	Priority Non-Compliant	Compliant	

Table 4: CTC Assessment of CMM 4.04 Vessels presumed to have carried out IUU activities

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Russian Federation	Priority Non-Compliant	Compliant	

Table 5: CTC Assessment of CMM 4.05 Commission Record of Vessels Authorised to Fish in the Convention Area

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Chile	Non-Compliant	<p>Secretariat Assessment: All 37 of the revoked authorisations were received by the Secretariat between 2 & 10 days late (Para 8).</p> <p>Comment by Member/CNCP: Chile recognizes the late submission of 37 revoked authorizations. Additional efforts will be made to avoid this kind of situations in the future. It is important to highlight that none of those 37 vessels has been actively fishing in the SPRFMO Area since 2010, thus the aim of the Convention and CMMs were not compromised.</p> <p>Discussion and recommendations:</p>	Non-compliant with paragraph 8. No further action
China	Non-Compliant	<p>Secretariat Assessment: China has provided images for 34% of its authorised fleet (reflecting an increase from 40 to 130 vessel images) and submission of IMO numbers in accordance with Annex 1 is currently incomplete (Para 5). Failure of the flag state to provide information regarding updating the authorisation of one vessel in accordance with paragraph 7.</p> <p>Comment by Member/CNCP: Because of the big number of Chinese authorised vessels in SPRFMO Convention Area, it needs time to collect images of all the vessels, and many of them are fishing on sea throughout the year and there is not possibility to take photo of them on sea. We always update images of vessels when the images are available. China will try the best to collect all the images of the China flagged vessels in SPRFMO records as soon as we can. All Chinese Trawlers have already obtained IMO number, but squid jigging vessels almost do not have IMO number. Due to the big number of Chinese squid jigging vessels, it needs time to apply for IMO number for all the vessels. All Chinese authorised vessels in SPRFMO Convention area are advised to get IMO number, and China will urge the vessel owner to apply for IMO number as soon as possible.</p> <p>China domestic authorisation procedure is as follows: Chinese government examines the vessel and issues the Fishing License on High Sea for the vessel for permission to fish in a certain area (in this case, the SPRFMO Convention Area). The validity period of the Fishing License is usually three years, starting from the permission date. After obtaining the Fishing License the vessel is permitted to set out to sea and then it will submit the SPRFMO registration application. The authorisation period in the registration form conforms to the validity period on the Fishing License, but it doesn't mean that the vessel is fishing before registration. We require all the newly authorised vessels to enter the SPRFMO Convention Area 15 days after their registration.</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 7. Undertake a Compliance review within 180 days to update CTC and Commission regarding progress intersessionally.</p> <p>Non-compliant with paragraph 5. Undertake a Compliance review within 180 days to update CTC and Commission regarding progress intersessionally.</p>

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Cook Islands	Compliant	Secretariat Assessment: The Secretariat is unable assess whether there may be a compliance issue against paras 2,3,4 because the Cook Islands have not submitted an implementation report. Comment by Member/CNCP: No comment Discussion and recommendations:	Non-compliant with paragraphs 2,3 and 4. Refer to executive summary
European Union	Non-Compliant	Compliant	
Korea	Non-Compliant	Secretariat Assessment: The Secretariat has received images for 10 out of the 23 authorised vessels (includes the 6 active vessels) (para 5). Comment by Member/CNCP: Submitted outstanding images (last submission was 6 Dec) Discussion and recommendations:	Non-compliant with paragraph 5. No further action
Peru	Non-Compliant	Secretariat Assessment: The Secretariat has received images for 74 of Peru's authorised vessels (an increase of 70 vessels) and submission of IMO numbers in accordance with Annex 1 is currently incomplete (para 5). Comment by Member/CNCP: <i>Vessels with IMO (>100t):</i> With respect to vessels with IMO numbers, we sent IMO numbers of 69 vessels, representing 79% of the total. It is being carried out the necessary coordination for that the IMO numbers of 18 vessels can be sent as soon as possible. <i>Authorised Vessels with Images:</i> Regarding the images, it has been sent images of 70 vessels; though, it should be mentioned that the SPRFMO already had images of 303 vessels (Westella of registration number CO-29381-PM, Don Ole of registration number CO-50608-PM and Ocean Star of registration number CO-51118-PM). Attached to this document are the images of 01 vessels (Caracol of registration number CO-15313-PM). Therefore, the SPRFMO would already have 74 vessels with its images, representing Discussion and recommendations:	Non-compliant with paragraph 5. Undertake a Compliance review within 180 days to update CTC and Commission regarding progress intersessionally.
Russian Federation	Compliant	Secretariat Assessment: On 2 April the PAMYAT KIROVA undertook transfer of supplies within the Convention Area without being on the SPRFMO Record of Vessels (para 11). Comment by Member/CNCP: Refer to additional information supplied for the Draft IUU List. Discussion and recommendations:	Priority Non-Compliant with paragraph 11. Develop a compliance action plan.
Liberia	Compliant	Secretariat Assessment: 8 currently authorised vessels are missing the required images (para 5). Comment by Member/CNCP: Images for the aforementioned vessels have been submitted to the Secretariat as of 29 November 2016 Discussion and recommendations:	Non-compliant with paragraph 5. No further action
Panama	Compliant	Secretariat Assessment: The Secretariat is unable assess whether there may be a compliance issue against paras 2,3,4 because Panama has not submitted an implementation report. 3 of Panama's currently authorised vessels are missing images and submission of IMO numbers in accordance with Annex 1 is currently incomplete (para 5). Comment by Member/CNCP: No comment Discussion and recommendations:	Non-compliant with paragraphs 2,3 and 4. Refer to executive summary Non-compliant with paragraph 5. Undertake a Compliance review within 180 days to update CTC and Commission regarding progress intersessionally.

CMM 2.06 Establishment of the SPRFMO Vessel Monitoring System

At this time, this CMM does not have readily measurable implementation requirements.

Table 6: CTC assessment of CMM 2.07 Minimum standards of Inspection in Port

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Cook Islands	Non-Compliant	Secretariat Assessment: The Secretariat is unable assess whether there may be a compliance issue against because the Cook Islands have not submitted an implementation report. Comment by Member/CNCP: No comment Discussion and recommendations:	Non-compliant with CMM 2.07. Refer to executive summary
Cuba	Non-Compliant	Secretariat Assessment: The Secretariat is unable assess whether there may be a compliance issue against because Cuba has not submitted an implementation report. Comment by Member/CNCP: No comment Discussion and recommendations:	Non-compliant with CMM 2.07. Refer to executive summary
Ecuador	Non-compliant	Secretariat Assessment: At this time, the Secretariat has not received any summaries for the 26 port inspections conducted by Ecuador. Comment by Member/CNCP: No Comment Discussion and recommendations:	Priority Non-Compliant with paragraph 21. Develop a compliance action plan.
Faroe Islands	Non-Compliant	Compliant	
Korea	Compliant	Secretariat Assessment: Korea's implementation report records that 93 inspections have been carried out but the Secretariat has only received 1 inspection report summary ~ 3% (note a similar report was received last year and Korea clarified that the number referred to the number of inspectors and not the number of inspections). Comment by Member/CNCP: Korea confirmed that that 31 was the number of ports and that 93 was the number of inspectors. Discussion and recommendations:	Compliant.
Russian Federation	Compliant	Secretariat Assessment: The Russian Federation Implementation Report indicates that the Russian Federation does expect to receive SPRFMO-managed species in its ports – but so far the information required under Paragraphs 5 and 9 has not been submitted. Comment by Member/CNCP: Russian Federation agreed to send the required information. Discussion and recommendations:	Non-compliant with paragraphs 5 and 9. Provide outstanding information within 180 days.
Chinese Taipei	Non-Compliant	Compliant	

CMM 1.02 Gillnets in the SPRFMO Area

This CMM did not have any identified compliance issues during either 2014/15 nor in 2015/16.

Table7: CTC assessment of CMM 4.09 Minimising bycatch of Seabirds

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
China	Non-Compliant	Compliant	
Korea	Non-Compliant	Secretariat Assessment: Korea's annual national report did not report specifically on seabird mitigation measures nor observed seabird interaction data Comment by Member/CNCP: Outstanding information has been provided during the CTC meeting. Discussion and recommendations:	Non-complaint with paragraph 8. No further action
New Zealand	Non-Compliant	Compliant	
Peru	Non-Compliant	Compliant	
Russian Federation	Non-Compliant	Compliant	
Vanuatu	Non-Compliant	Secretariat Assessment: Annual national report did not report specifically on seabird mitigation measures nor observed seabird interaction data Comment by Member/CNCP: The most recent Vanuatu annual report covered the 2015 fishing year. During this season there were no observers on the vessels as a result of public servants being redeployed to assist in the reconstruction work following Cyclone Pam. Consequently, there were no seabird observations carried out on the vessels during 2015. I would also note that because the vessels do not discharge biological material they are exempt from applying the seabird mitigation measures described in the CMM. However, tori lines were trialled on the vessels in 2016 Discussion and recommendations:	Non-compliant with paragraph 8. No further action.

Table 8: CTC Assessment of CMM 4.10 Compliance and Monitoring Scheme

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
Cook Islands	Priority Non-Compliant	Secretariat Assessment: The Cook Islands have not submitted a 2015/16 Implementation report so far (para 5) Comment by Member/CNCP: No comment Discussion and recommendations:	Priority Non-complaint with paragraph 5. Develop a compliance action plan (also see executive summary)
Cuba	Priority Non-Compliant	Secretariat Assessment: Cuba has not submitted a 2015/16 implementation report so far (para 5). Comment by Member/CNCP: No comment Discussion and recommendations:	Priority Non-complaint with paragraph 5. Develop a compliance action plan (also see executive summary)
Ecuador	Priority Non-Compliant	Compliant	
Faroe Islands	Priority Non-Compliant	Compliant	
Korea	Non-Compliant	Secretariat Assessment: Korea submitted its 2015/16 implementation report on 14 December 2016 (60 days late) (para 5). Comment by Member/CNCP: This significant delay is due to the personnel changes and the shift in responsibilities within our Division. Discussion and recommendations:	Non-compliant with paragraph 5. No further action
Russian Federation	Priority Non-Compliant	Compliant	
Colombia	Non-Compliant	Secretariat Assessment: Colombia has not submitted a 2015/16 implementation report so far (Para 5). Comment by Member/CNCP: No comment Discussion and recommendations:	Priority Non-complaint with paragraph 5. Develop a compliance action plan (also see executive summary)
Panama	Priority Non-Compliant	Secretariat Assessment: Panama has not submitted a 2015/16 implementation report so far (Para 5) Comment by Member/CNCP: No comment Discussion and recommendations:	Priority Non-complaint with paragraph 5. Develop a compliance action plan (also see executive summary)

CTC Assessment of CMM 3.04 Boarding and Inspection Procedures

This CMM did not have any secretariat identified compliance issues during 2015/16.

Table 9: CTC assessment of CMM 3.05 Regulation of Transshipment and Other Transfer Activities
(only assessed for the period after 1 March 2016)

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
China	n/a	<p>Secretariat Assessment: On 7 March 2016 the RONG ZHOU conducted transshipment activities in the SPRFMO Area without being on the SPRFMO record of Vessels. The RONG ZHOU was later included into the Record by China as per an email received on 11 October 2016 where China also asserted that at the time of the Transshipment the RHOU ZHOU had been authorised (Para 2) None of the notifications related to the 15 Jack mackerel Transshipments have been received with in the timeframe required under paragraph 6 (i.e. [36] hrs prior to transshipment) (para 4) According to China's Implementation Report 7 Jack mackerel Transshipments were observed, but China has not submitted any Annex B logsheets to the Secretariat (Para 6)</p> <p>Comment by Member/CNCP: The fishing vessel RONG ZHOU had been registered in SPRFMO Record of Vessels since 2014, its period of validity expired on 31 March 2015. After that due to the carelessness of the ship-owner, the updated registration information of this vessel did not be submitted in a timely manner. However, the vessel RONG ZHOU is authorized by Chinese government to fish in south-east Pacific from 20th March 2014 to 31st March 2017 according to its latest Fishing License. The updated registration information of RONG ZHOU has been submitted to this Secretariat on 11th October 2016. We confirm that HUA YING 205 and RONG ZHOU are both authorized vessels to operate in the SPRFMO Convention Area. In view of this, we would like to request this Secretariat to move the above mentioned two vessels from the Draft IUU List in 2017. From now on China will update the vessel registration information in a timely manner if any.</p> <p>Sometimes the carrier vessel adjusts the transshipment date temporarily because of the bad weather. In this case, the notification cannot be received 36 hours before transshipment. We emphasize to the vessel operator that they shall notify the Secretariat of each transshipment of CMJ at least 36 hours before the estimated time of such activities.</p> <p>According to CMM 3.05 para 6, China shall submit the transshipment logsheets to the Secretariat no later than 15 days from debarkation of the observer. But the observer of KAIFU is also steward of this vessel, he is still working on-board KAIFU. China would like to submit the transshipment logsheets if needed.</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 2. Undertake a compliance review within 6 months</p> <p>Non-compliant with paragraph 4. No further action, refer to executive summary</p> <p>Compliant with paragraph 6.</p>
European Union	n/a	<p>Secretariat Assessment: None of the Transshipment notifications were been received within the required timeframe of [36] hours (Para 4)</p> <p>Comment by Member/CNCP: The actual date of transshipments occurred later than the date foreseen in the initial notifications. SPRFMO was duly informed.</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 4. No further action, refer to executive summary</p>
Korea	n/a	<p>Secretariat Assessment: Three of the Transshipment notifications have not been received within the required timeframe of [36] hours (Para 4)</p> <p>Comment by Member/CNCP: No comment</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 4. No further action, refer to executive summary</p>
Russian Federation	n/a	<p>Secretariat Assessment: On 2 April the PAMYAT KIROVA undertook transfer of supplies within the Convention Area without being on the SPRFMO Record of Vessels (Para 3).</p>	<p>Priority Non-compliant with paragraph 3. Develop a compliance action plan</p>

Member/ CNCP	2014/15 Compliance Status	2015/16 Assessments	2015/16 Compliance Status
		<p>Comment by Member/CNCP: Please refer to additional information provided as part of the Draft IUU List.</p> <p>Discussion and recommendations: Russian Federation offered to prepare a report within 6 months.</p>	(including an investigation report) to be provided within 6 months
Vanuatu	n/a	<p>Secretariat Assessment: On 2 April 2016, the vessel FRIGG engaged in transfer of supplies with the Russian Federation flagged PAMYAT KIROVA (a vessel that is not included in the SPRFMO Record of Vessels) (Para 3). Two of the Transshipment notifications were not received within the required timeframe of [36] hours (Para 4)</p> <p>Comment by Member/CNCP: A detailed investigation report of this incident was provided by Vanuatu to the SPRFMO Secretariat on 22 September 2016. During Commission discussion of the (then) proposed CMM, Vanuatu expressed concerns about the practicality of the measures particularly with regard to the need to provide pre-transshipment reports 36 hours in advance of the activity, advising the Commission that captains of fishing vessels sometimes decide to undertake transshipments at short notice because of operational considerations. On 5 May 2016 I wrote to the Secretariat to advise of the occurrence of such an event, stating, "Here is an updated transshipment report that illustrates the difficulties of applying the 36hr rule in practice. Odin experienced poor fishing conditions and took the opportunity to top up the carrier with 300t of fish at short notice." The initial pre-transshipment report was for the vessel 'Frigg' only for a scheduled unload. Rigid compliance with the 36hr pre-transshipment reporting rule would at times lead to costly inefficiencies in the operation of the vessels. This rule should be reviewed</p> <p>Discussion and recommendations:</p>	<p>Priority Non-compliant with paragraph 3. No further action</p> <p>Non-compliant with paragraph 4. No further action, refer to executive summary</p>
Liberia	n/a	<p>Secretariat Assessment: Liberia's implementation report suggests that Liberian reefers have conducted transshipping activities during the period Nov 2015 – Oct 2016; however, the Secretariat has not received any Transshipment reports for that period (Para 8).</p> <p>Comment by Member/CNCP: A revised Implementation Report has been provided to the Secretariat as of 1 December 2016.</p> <p>Discussion and recommendations:</p>	Compliant
Panama	n/a	<p>Secretariat Assessment: 12 of the 21 Transshipment notifications were received outside the timeframe of [36] hrs. (Para 4) 7 of the 13 Transshipment details files were received outside the timeframe of 7 days (Para 8)</p> <p>Comment by Member/CNCP: No comment</p> <p>Discussion and recommendations:</p>	<p>Non-compliant with paragraph 4. No further action, refer to executive summary</p> <p>Non-complaint paragraph 8. No further action</p>

CMM 4.13 Exploratory Fisheries

This CMM did not have any secretariat identified compliance issues during 2015/16.

CMM 4.14 Exploratory Toothfish fishing (New Zealand only)

This CMM did not have any Secretariat identified compliance issues during 2015/16.

CMM 4.15 Stateless Vessels

This CMM did not have any Secretariat identified compliance issues during 2015/16.

Executive Summary of the 2017 Final Compliance Report (assessing 2015/16)**CMM 4.10 (CMS) paragraph 15**

“The Commission shall consider the Provisional Compliance Report provided by the CTC, and adopt a Final Compliance Report at its annual meeting, which shall include:

- a. A compliance status for each Member and CNCP with respect to the implementation of their obligations under the Convention and CMMs, and recommendations for any corrective action needed, based on compliance issues identified with respect to that Member or CNCP;*
- b. Suggestions for possible amendments or improvements to existing CMMs to address implementation or compliance difficulties experienced by Members and CNCPs;*
- c. Obstacles to implementation identified by Members and CNCPs including capacity building requirements;*
- d. Additional obligations that should be reviewed under the CMS;*
- e. Any other action the Commission shall deem appropriate to address non-compliance noted in the Final Compliance Report or to promote compliance with the Convention, CMMs and other obligations reviewed in the CMS.”*

CMM 4.10 (CMS) paragraph 16

“The final Compliance Report shall also contain an executive summary setting out any recommendations or observations from the Commission regarding the issues listed in paragraph 15 of this measure”.

The Commission adopted the CTC’s Provisional Executive Summary without amendments.

The CTC was pleased to see the considerable improvements that Members and CNCPs made with regard to their obligations compared with last year. However, there was general disappointment about consistent lack of representation at the CTC meeting which made the assessment task more difficult.

Proposals to amend or improve existing CMMs:

The CTC agreed that the rules for transshipment notification period (paragraph 4) contained in CMM 3.05 should be revised in order to facilitate the operational aspects of the fleets fishing in the Convention Area. A proposal to improve the text of the transshipment measure (CMM 3.05) was deferred to the Commission for further consideration.

Identified obstacles to implementation and recommendations:

- a. At the 2016 Meeting, the Commission recognised that CMM 4.09 (seabirds) is unclear in terms of its application to squid jigging and recommend that this measure should be revised in order to clarify this issue. The CTC recognised this as an outstanding issue.*
- b. China queried how transshipment data that has been collected under para 1d of CMM 4.02 (Data standards) could be provided in sufficient detail to facilitate effective stock assessment (as required under para 1e). The CTC agreed to recommend that the Commission revise this measure in order to reconsider the scope of the obligation.*
- c. The CTC identified a source of confusion in the template for the implementation report regarding port inspections. The CTC agreed to recommend that the Secretariat improves the relevant text to avoid future confusion.*

- d. The CTC identified possible issues of capacity and agreed that the CTC should consider ways to include provision of technical assistance or capacity building in preparation of implementation reports and appropriate follow-up actions including compliance action plans. The CTC recommends that the Commission ask the Chairperson of the Commission and the CTC Chairperson to engage bilaterally and intersessionally with the corresponding Members and CNCPs in order to identify possible shortcomings, ascertain possible solutions and courses of action. The Secretariat will facilitate this process.
- e. The CTC discussed that in future CMS exercises, cases involving non-compliance with certain deadlines may be treated together as a different category than those currently listed in Annex 1. The CTC also agreed that in certain situations, these cases of non-compliance may be minor in nature and would not compromise the effectiveness of SPRFMO CMMs. The CTC agreed to treat each case on its merits.

Provision of CMMs and other Commission decisions that are a priority to be monitored and reviewed:

The CTC strongly encouraged the submission of implementation reports from all Members and CNCPs. Failing to report any information compromises the effectiveness of CMMs and the ability for the Commission to meet its objectives under the Convention. The CTC agreed to recommend that the Commission task the Commission Chairperson to communicate bilaterally with those Members and CNCPs that have continually failed to engaged in the CMS process.

In addition, the CTC agreed to provide the following recommendations to the Commission:

- a. Members and CNCPs that were asked by the CTC to prepare a Compliance Review, shall transmit to the Secretariat any missing information, if the relevant information has not yet been provided, within 90 days after the end of the Commission Meeting 2017.
- b. Members and CNCPs that were asked by the CTC to prepare a Compliance Action Plan shall provide the Secretariat with detailed information on the steps taken to respond to and rectify the non-compliance and/or improve the implementation of the relevant obligations, within six months after the end of the Commission Meeting 2017.

Summary Table for the 2017 Final Compliance Report (*which assessed 2015/16*)

The following table shows overall compliance and provides a simple comparison between each Members/CNCPs “Compliance Status” compared with last year’s final compliance assessment. It can be seen that there has been an improvement in compliance across all but one measure (49 non-compliant instances last year reducing to 33 this year). Measures for which compliance has significantly improved include CMMs 4.01 (*T. murphyi*), 4.02 (Data standards) and 4.09 (Seabird mitigation).




Assessed CMM	4.01	4.02	4.03	4.04	4.05	2.06	2.07	1.02	4.09	4.10	3.04	3.05	4.13	4.14	4.15
Australia	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Chile	Compliant	Non-compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
China	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant
Cook Islands	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Non-compliant	Compliant	Compliant	Priority non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Cuba	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Priority non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Ecuador	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Priority non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
European Union	Non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant
Faroe Islands	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Korea	Non-compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Non-compliant	Non-compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant
New Zealand	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Peru	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Russian Federation	Non-compliant	Non-compliant	Compliant	Compliant	Priority non-compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Compliant	Priority non-compliant	Compliant	Compliant	Compliant
Chinese Taipei	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Vanuatu	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Priority non-compliant	Compliant	Compliant	Compliant
Colombia	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Priority non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Liberia	Compliant	Non-compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Panama	Priority non-compliant	Non-compliant	Compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant	Compliant	Priority non-compliant	Compliant	Non-compliant	Compliant	Compliant	Compliant
USA	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant
Non-compliant 2017 Final CMS	4	4	0	0	8	n/a	4	0	2	5	0	6	0	0	0
<i>Non-compliant 2016 Final CMS</i>	<i>9</i>	<i>9</i>	<i>2</i>	<i>1</i>	<i>8</i>	<i>n/a</i>	<i>6</i>	<i>0</i>	<i>6</i>	<i>8</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

KEY: Compliant, Non-compliant, Priority non-compliant, Seriously/Persistently non-compliant

COMM 5 - Report - ANNEX 6

Final IUU List

(COMM5 - Doc 07)

Name of vessel	TAVRIDA (AURORA) (PACIFIC CONQUEROR)	DAMANZAIHAO (LAFAYETTE)	MYS MARI
Flag of vessel	Russian Federation (Peru)	Peru (Russian Federation)	Russian Federation
Owner Name & Address	Albatros Company Limited, ul. Portovaya 8, Korsakov 694020, Russian Federation (Sustainable Fishing Resources S.A.C.Calle Amador Merino Reyna No. 307 Piso 9 San Isidro, Lima, Peru)	Sustainable Fishing resources S.A.C.Calle Amador Merino Reyna No. 307 Piso 9 San Isidro, Lima, Peru (Investment Company KREDO LLC)	LLC Transit DV (Company details unknown)
Vessel Operator			LLC Transit DV
Call sign vessel	UBR16	UDFI	UIBA
IMO number	9179359	7913622	9009918
Other vessel identifier			
Photograph of vessel			
Date the vessel was first included in the IUU List	6 February 2015	6 February 2015	29 January 2016
Summary of activities that justifies the inclusion of the vessel on the List, together with reference to all relevant documents informing of and evidencing those activities	Fishing in the SPRFMO Convention Area without authorisation (air photographs from New Zealand) and prolonged unauthorised presence in the SPRFMO Area (evidence from Chile).	Prolonged presence in the SPRFMO Area without authorisation and providing support to five authorised Peruvian trawlers according to evidence provided by Chile and Peru.	In response to information received through AIS data, the New Zealand Government deployed a surveillance aircraft on 21/2/2015 to the approximate location of the MYS MARI in the SPRFMO Convention Area to the east of the New Zealand EEZ. Photographic evidence was gathered which showed that the MYS MARI was fishing at the time. The MYS MARI had not been authorised to fish in the SPRFMO Convention Area by its flag state.

(Indicates former details)

COMM 5 - Report - ANNEX 7

Guidance to Panama Regarding its Future CNCP Status

Members expressed serious concerns about Panama's record of non-compliance with SPRFMO Conservation and Management Measures (CMMs) and failure to inform the Commission of the measures it has taken to ensure compliance by its vessels with the CMMs.

The Commission approved Panama's application for CNCP status in 2017, but advised that Panama should not expect its CNCP application to be approved in 2018 unless Panama takes steps to improve its cooperation with the Commission, including:

1. Undertake the corrective actions requested of Panama by the Commission in the Final Compliance Report 2017, including:
 - a. Developing a Compliance Action Plan regarding CMM 4.01 (*Trachurus murphyi*) within six months after the end of the Commission Meeting 2017;
 - b. Undertaking a Compliance Review regarding CMM 4.02 (*Data Standards*) within 90 days after the end of the Commission Meeting 2017;
 - c. Undertake a Compliance Review regarding CMM 4.05 (*Commission Record of Vessels Authorised to fish*) within 90 days after the end of the Commission Meeting 2017;
 - d. Develop a Compliance Action Plan regarding CMM 4.10 (*Establishment of a Compliance and Monitoring Scheme*) within six months after the end of the Commission Meeting 2017.
2. Demonstrate considerable improvements with regard to their obligations as a CNCP compared to last year, including a commitment to participate in the effective operation of the Commission;
3. Submit its Implementation Report for the 2018 Compliance Report in accordance with paragraph 5 of CMM 4.10 (*Compliance and Monitoring Scheme; 2016*); and
4. Address all requirements for a non-member seeking the status of CNCP, as listed in paragraph 3 of Decision 1.02 (*Rules for Cooperating Non-Contracting Parties; 2016*).

The Commission notes that the Chairperson of the Commission will engage bilaterally with Panama in relation to this decision during the intersessional period.

COMM 5 - Report - ANNEX 8

Amendments to Conservation and Management Measures

The Commission amended the following Conservation and Management Measures (CMMs):

Old (2016) Name	New Name
------------------------	-----------------

- | | |
|-------------|---------------|
| a. CMM 4.01 | – CMM 01-2017 |
| b. CMM 4.02 | – CMM 02-2017 |
| c. CMM 4.02 | – CMM 02-2017 |
| d. CMM 2.06 | – CMM 06-2017 |
| e. CMM 4.03 | – CMM 03-2017 |
| f. CMM 4.04 | – CMM 04-2017 |
| g. CMM 3.05 | – CMM 12-2017 |
| h. CMM 2.07 | – CMM 07-2017 |
| i. CMM 4.09 | – CMM 09-2017 |
| j. CMM 4.10 | – CMM 10-2017 |

COMM 5 – Report – ANNEX 8a

CMM 4.01 (new: CMM 01-2017). Conservation and Management Measure for *Trachurus murphyi*

(COMM5-WP06)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 29 September to 3 October of 2016 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCPS) included on the Commission Record of Vessels (CMM 4.05; 2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *Trachurus murphyi* undertaken by Chile in areas under its national jurisdiction.
2. Only fishing vessels duly authorized pursuant to Article 25 of the Convention and in accordance with CMM 4.05 (Record of Vessels; 2016) that are flagged to Members and Cooperating Non-Contracting Parties (CNCPS) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

Effort management

4. Relevant Members and CNCPS shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention

¹ In the event that GT is not available, Members and CNCPS shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

5. In 2017 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to 443 000 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the Flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2017 throughout the range of the stock should not exceed 493 000 tonnes.

Data collection and reporting

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 4.02 (Data Standards; 2016) and using templates prepared by the Secretariat and available on the SPRFMO website.
12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
13. Except as described in paragraph 11 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 4.02 (Data Standards; 2016) and the templates available on the SPRFMO website, including an annual catch report.
14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
15. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 4.02 (Data Standards; 2016) and other relevant CMMs adopted by the Commission. These VMS data shall be provided to the Executive

Secretary within 10 days of each quarter in the format prescribed by the SPRFMO Data Standards and using the templates on the SPRFMO website.

16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorized to fish in the fishery in accordance with Article 25 of the Convention and CMM 4.05 (Record of Vessels; 2016) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 4.02 (Data Standards; 2016).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2017 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2017 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2017 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
19. In accordance with Article 24(2), all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 4.10 (Compliance Monitoring Scheme; 2016). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its Workplan (2017) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - (a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - (b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for vessels flying their flag and ensure that such observers collect and report data as described in CMM 4.02 (Data Standards; 2016). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.

in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in respect of fisheries in adjacent areas under national jurisdiction

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

Special requirements of developing States

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

25. This Measure shall be reviewed by the Commission in 2018. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015) and CMM 4.01 (*Trachurus murphyi*, 2016) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20 paragraph 4(c) of the Convention and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.

Table 1: Tonnages in 2017 fishery as referred to in paragraph 5

Member / CNCP	Tonnage
Chile	317 300
China	31 294
Cook Islands	0
Cuba	1 100
Ecuador (HS)	1 179
European Union	30 115
Faroe Islands	5 466
Korea	7 321
Peru (HS)	10 000
Russian Federation	16 183
Vanuatu	23 042
Total	443 000

Table 2: Percentages³ related to the catches referred to in paragraph 10

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive.

COMM 5 - Report - ANNEX 8b

Proposal to amend Annex 14 of CMM 4.02 (new: CMM 02-2017) Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data

(COMM5-Prop02-rev1)

Background

Currently, Annex 14 of CMM 4.02 contains a list of 6 species reflecting South Pacific Ocean high seas species which are listed in Appendix 1¹ of the Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) and Appendix 1² of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

However, according to the International Union for Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species³ and Appendix 2 of CITES, there are other endangered, vulnerable and near threatened species found in the SPRFMO Convention area which so far have not been listed in Annex 14 of the CMM 4.02.

In order to better take into account ecosystem considerations, SPRFMO data standards should align with the Ecosystem Approach to Fisheries Management⁴ guidelines where the ecological relationships between harvested, dependent and associated species should be maintained.

The proposed amendment seeks, as advised by the SPRFMO Scientific Committee (SC) on its 4th meeting held in October 2016, to include Porbeagle shark under the definition of "other species of concern".

¹ http://www.cms.int/sites/default/files/document/Appendices_COP11_E_version5June2015.pdf

² <https://cites.org/sites/default/files/eng/app/2016/E-Appendices-2016-03-10.pdf>

³ IUCN 2016. *The IUCN Red List of Threatened Species. Version 2016-2*. <http://www.iucnredlist.org>. Downloaded on 17 October 2016.

⁴ <http://www.fao.org/3/a-u4470e.pdf>

Proposal to amend Annex 14 of CMM 4.02 Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data

The Commission of the South Pacific Regional Fisheries Management Organisation,

Having regard to the International Union for Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species and Appendix 2 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);

Recalling the FAO Ecosystem Approach to Fisheries Management⁵ guidelines where the ecological relationships between harvested, dependent and associated species should be maintained;

Taking into account the recommendation of the 4th SPRFMO Scientific Committee meeting of October 2016;

Adopts the following amendment:

Article 1.

Annex 14 of CMM 4.02 Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data is replaced by the following text:

Annex 14

Definition of “other species of concern”

As advised by the Scientific Committee and informed by Appendix 1 of the Convention on the Conservation of Migratory Species of Wild Animals (a.k.a. CMS or Bonn Convention), the international Union for Conservation of Nature and Natural Resources (IUCN) red List of Threatened Species, Appendix 1 and 2 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), “other species of concern” are defined, as of January 2017, as:

Scientific name	English name	3-alfa code ⁶
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	OCS
<i>Carcharodon carcharias</i>	Great white shark	WSH
<i>Cetorhinus maximus</i>	Basking shark	BSK
<i>Lamna nasus</i>	Porbeagle shark	POR
<i>Manta spp.</i>	Manta rays	MNT
<i>Mobula spp.</i>	Mobula nei	RMU
<i>Rhincodon typus</i>	Whale shark	RHN

Other species may be added by agreement of the Members based on the advice of the Scientific Committee⁷.

⁵ <http://www.fao.org/3/a-u4470e.pdf>

⁶ 2016 ASFIS List of Species for Fishery Statistics Purposes

⁷ The species listed in Annex 5 of SCO4 will be considered for further assessment during SCO5 in order to provide a full recommendation on “other species of concern” for the consideration of the 6th SPRFMO Commission meeting.

COMM 5 - Report - ANNEX 8c

REVISION OF CMM 4.02 (new: CMM 02-2017). Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data

(COMM5-WP03)

Based on suggested amendments provided by the 4th SC meeting:

1. Section 7.3 of the fourth SC meeting report also provides a suggested amendment to paragraph 1(e) of CMM 4.02 (Data Standards; 2016):
 - compile data on fishing activities and the impacts of fishing and provide these in a timely manner to the Secretariat of the South Pacific Regional Fisheries Management Organization (SPRFMO) using the SPRFMO data submission templates. ~~Such~~ [The] data under this subparagraph will be used for the assessment and monitoring of stocks. Members and CNCs will provide by the 30th June, their previous (January to December) year's data on fishing activities and the impacts of fishing described in sections 1b) – 1d) above.

COMM 5 - Report - ANNEX 8d

CMM 2.06 (new: CMM 06-2017) Conservation and Management Measure for the Establishment of the Vessel Monitoring System in the SPRFMO Convention Area

(COMM5-Prop03-rev7)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING the relevant provisions of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, in particular Articles 25 (1)(c) and 27 (1)(a);

NOTING the importance of the vessel monitoring system as a tool to effectively support the principles and measures for the conservation and management of fisheries resources within the Convention Area;

MINDFUL of the rights and obligations of Commission Members and Cooperating Non-Contracting Parties (CNCPS) in promoting the effective implementation of Conservation and Management Measures (CMMs) adopted by the Commission;

FURTHER MINDFUL of the key principles upon which the vessel monitoring system is based, including the confidentiality and security of information handled by the system, and its efficiency, cost-effectiveness and flexibility;

ADOPTS the following CMM to provide for the implementation of the SPRFMO Vessel Monitoring System:

A Commission Vessel Monitoring System

1. The Commission Vessel Monitoring System (Commission VMS) shall be activated on the date agreed in the contract between SPRFMO and its chosen provider.
2. The Commission VMS shall cover the area as defined in Article 5 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean and have a buffer zone of 100 nautical miles outside the Convention Area.

Definitions

3. For the purposes of interpreting and implementing these procedures, the following definitions shall apply:
 - (a) "Convention" means the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean;
 - (b) "Convention Area" means the Area to which this Convention applies in accordance with Article 5 of the Convention;
 - (c) "Commission" means the Commission of the South Pacific Regional Fisheries Management Organisation established by Article 6 of the Convention;
 - (d) "Automatic Satellite Position Device/Automatic Location Communicator" (ALC) means a near real-time satellite position fixing transceiver;
 - (e) "Commission VMS" means the SPRFMO Vessel Monitoring System that is established under this CMM;
 - (f) "Member/CNCP VMS" means the domestic Vessel Monitoring Systems that each Member and CNCP are obliged to develop in accordance with this CMM;
 - (g) "Fisheries Monitoring Centre" (FMC) means the government authority or agency responsible for managing VMS for its flagged fishing vessels.

Purpose

4. The purpose of the Commission VMS is to continuously monitor the movements and activity of fishing vessels that are on the Commission Record of Vessels and are authorised by flag States to fish for fisheries resources in the SPRFMO Convention Area in a cost-effective manner in order to, inter alia, support the implementation of SPRFMO CMMs.

Applicability

5. The Commission VMS shall apply to all fishing vessels as defined in Article 1 (1)(h) of the Convention. The system shall operate on a permanent basis or until decided otherwise by the Commission.
6. Any Member or CNCP may request, for the Commission's consideration and approval that waters under its national jurisdiction be included within the area covered by the Commission VMS. Necessary expenses incurred in the inclusion of such area into the Commission VMS shall be borne by the Member or CNCP that made the request.

Nature and Specification of the Commission VMS

7. The Commission VMS shall be administered by the SPRFMO Secretariat under the guidance of the Commission.
8. Data collected by the Commission VMS shall be securely stored by the Secretariat for at least three years and for a period to be determined by the Commission, and shall be used by the Members and CNCPs to achieve compliance with CMMs. VMS data may also be used by the Scientific Committee for analysis to support specific scientific advice requested by the Commission for sound fisheries management decision-making in the Convention Area.
9. Without prejudice to the principle of flag State responsibility, each Member and CNCP shall require vessels flying its flag to report VMS data automatically either:
 - a) to the Secretariat via their flag State's FMC; or
 - b) simultaneously to both the Secretariat and its FMC.
10. Each Member and CNCP shall notify the Executive Secretary of its chosen means of reporting (option (a) or (b) under paragraph 9) before the Commission VMS is activated.
11. The Commission shall develop rules and procedures for the operation of the Commission VMS taking into account the provisions of Annex 1, including, inter alia:
 - a) measures to prevent tampering; and
 - b) use and release of data for purposes within scope of the Convention.
12. Security standards of the SPRFMO Commission VMS data shall be developed by the Commission, consistent with confidentiality provisions of the Data Standards CMM 4.02 (Data Standards; 2017).
13. All Member and CNCP fishing vessels required to report to the SPRFMO Commission VMS shall use a functioning ALC that complies with the Commission's minimum standards for ALCs in Annex 1.
14. The Commission shall, as soon as practicable, agree on the roles and responsibilities of fishing vessels, Members, CNCPs and the Commission Secretariat for the operation of the Commission VMS.

All Members, CNCPs and the Secretariat shall manage VMS data in accordance with the Security and Confidentiality Requirements in Annex 2.14 bis. The Commission shall review the requirements for accessing VMS data for inclusion in this CMM at its annual meeting in 2018.

Procedure in case of Manual Reporting

15. In the event of failure of automatic reporting, the procedure outlined in Annex 3 of this measure shall apply.

Review

16. At each annual meeting, the Secretariat shall provide the Commission with a report on the implementation and operation of the Commission VMS.
17. The Commission shall conduct a review of the implementation of the Commission VMS at its annual meeting in 2019 and shall consider its efficiency and effectiveness and consider further improvements to the system as required.

Annex 1

Minimum Standards for Automatic Location Communicators (ALCs) used in the Commission Vessel Monitoring System

1. The ALC shall automatically and independently of any intervention on the vessel communicate the following data:
 - (a) ALC static unique identifier;
 - (b) the current geographical position (latitude and longitude) of the vessel;
 - (c) the date and time (expressed in Coordinated Universal Time [UTC]) corresponding to the position of the vessel in paragraph 1 b);
2. The data referred to in paragraphs 1 b), c) and d) shall be obtained from a satellite-based positioning system.
3. ALCs fitted to fishing vessels must be capable of transmitting data at least every 15 minutes.
4. The data referred to in paragraph 1 shall be received by the Commission within an interval determined by the Commission.
5. ALCs fitted to fishing vessels must be protected so as to preserve the security and integrity of data referred to in paragraph 1.
6. Storage of information within the ALC must be safe, secure and integrated under normal operating conditions.
7. The flag State shall ensure that its FMC receives VMS positions at least with the frequency adopted according to this CMM and shall be able to request the VMS information at a higher frequency.
8. It shall be prohibited to destroy, damage, render inoperative or otherwise interfere with the ALC unless the competent authorities of the Flag State have authorised its repair or replacement.
9. Any features built into the ALC or terminal software to assist with servicing shall not allow unauthorised access to any areas of the ALC that could potentially compromise the operation of the VMS.
10. All ALCs shall be installed on vessels in accordance with their manufacturer's specifications and applicable standards.
11. Under normal satellite navigation operating conditions, positions derived from the data forwarded must be accurate to within 100 square metres.
12. The ALC and/or forwarding service provider must be able to support the ability for data to be sent to multiple independent destinations.
13. The satellite navigation decoder and transmitter shall be fully integrated and housed in the same tamper-proof physical enclosure.

Annex 2

Security and Confidentiality Requirements

1. The provisions set out below shall apply to all VMS data received pursuant to CMM 2.06.
2. VMS data from vessels operating within the SPRFMO Convention Area shall be treated as confidential information.
3. All Members, CNCPs and the Secretariat¹ shall ensure the secure treatment of VMS data in their respective electronic data processing facilities, in particular where the processing involves transmission over a network. All Members, CNCPs and the Secretariat shall implement appropriate technical and organisational measures to protect reports and messages against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, and against all inappropriate forms of processing.
4. The Secretariat shall take all the necessary steps to ensure that the requirements pertaining to the deletion of VMS data handled by the Secretariat are complied with.
5. Each Member and CNCP shall designate a Point of Contact for the purposes of any communication regarding the VMS system (VMS Point of Contact). It shall transmit the name of the individual or office holder, email and any other contact information for its Points of Contact to the SPRFMO Executive Secretary no later than 180 days after the conclusion of the annual Commission meeting in 2017. Any subsequent changes to the contact information shall be notified to the SPRFMO Executive Secretary within 21 days after such changes take effect. The SPRFMO Executive Secretary shall promptly notify Members and CNCPs of any such changes.
6. The SPRFMO Executive Secretary shall establish and maintain a register of Points of Contact based on the information submitted by the Members and CNCPs. The register and any subsequent changes shall be published promptly on the Members only area of the SPRFMO website.
7. The Secretariat shall inform all Members and CNCPs of the measures taken by the Secretariat to comply with these security and confidentiality requirement provisions at the annual meeting following the establishment of the Commission VMS. Such measures shall ensure a level of security appropriate to the risks represented by the processing of VMS data.
8. All requests for VMS data must be made to the Secretariat by electronic means. Requests for VMS data must be made by a VMS Point of Contact, or an alternative contact nominated by the VMS Point of Contact. The Secretariat shall only provide VMS data to a requesting Member or CNCP where the VMS data relates to vessels flagged to other Members or CNCPs and all relevant Members and CNCPs have provided written consent through their VMS Point of Contacts for the data to be shared. The Secretariat shall only provide VMS data where it will be downloaded from a secure server by the relevant VMS Point of Contact.
9. The Commission VMS shall have the following security features as a minimum:
 - (a) The system shall be able to withstand a break-in attempt from unauthorised persons.
 - (b) The system shall be capable of limiting the access of authorised persons to a predefined set of data only.
 - (c) The system shall be capable of ensuring that VMS data are securely communicated and that all VMS data that enter the system are securely stored for the required time and that they will not be tampered with.
10. Security procedures shall be designed addressing access to the system (both hardware and software).

¹ And the Commission's VMS vendor

11. The following features are the mandatory requirements for the Secretariat's staff use of the Commission VMS:
 - (a) Each user shall be assigned a unique user identification and associated password. Each time the user logs on to the system he/she has to provide the correct password. Even when successfully logged on, the user only has access to those and only those functions and data that he/she is configured to have access to.
 - (b) System security issues/events must be auditable by a third party at any time at the request of the Commission.

The Executive Secretary shall develop a process for authorising users who are not Secretariat staff, to be reviewed by the Commission at its 2018 meeting.

12. Submission of VMS data for the purpose of CMM 2.06 shall use cryptographic protocols to ensure secure communications.
13. The Secretariat shall nominate a Security System Administrator. The Security System Administrator shall review the log files generated by the software, properly maintain the system security, and restrict access to the system as deemed necessary. The Security System Administrator shall also act as a liaison between the VMS Point of Contact and the Secretariat in order to resolve security matters.

Annex 3

SPRFMO Rules on the manual reporting in the SPRFMO Convention Area.

1. In the event of non-reception of four consecutive, programmed VMS positions, and where the Secretariat has exhausted all reasonable steps² to re-establish normal automatic reception of VMS positions, the Secretariat shall notify the Member or CNCP whose flag the vessel is flying. That Member or CNCP shall then direct the vessel Master to begin manual reporting.
2. The manual report shall either be sent by the vessel to the Secretariat via their Fisheries Monitoring Centre (FMC) or directly to the Secretariat.
3. Following the receipt of a direction from a Member or CNCP in accordance with paragraph 1, the vessel Master shall ensure the vessel manually reports its position every 4 hours. If automatic reporting to the SPRFMO VMS has not been re-established within 60 days of the commencement of manual reporting that Member or CNCP shall order the vessel to cease fishing, stow all fishing gear and return immediately to port in order to undertake repairs.
4. The vessel may recommence fishing in the SPRFMO Convention Area only when the ALC has been confirmed as operational by the Secretariat. Four consecutive, programmed VMS positions must have been received by the Secretariat to confirm that the ALC/MTU is fully operational.
5. The format for manual reports to be used is as below. Vessels are encouraged to use email as the primary means of communication and shall send these messages to secretariat@sprfmo.int.
6. The standard format for manual position reporting in the event of ALC malfunction or failure shall be as follows:
 - (a) IMO number (if applicable)
 - (b) International Radio Call Sign
 - (c) Vessel Name
 - (d) Vessel Master's name
 - (e) Position Date (UTC)
 - (f) Position Time (UTC)
 - (g) Latitude (decimal degrees, to the nearest 0.01 degrees)
 - (h) Longitude (decimal degrees, to the nearest 0.01 degrees)
 - (i) Activity (Fishing/Transit/Transshipping)
7. Members are also encouraged to carry more than one ALC when operating in the SPRFMO Convention Area in order to avoid the need to manually report if the primary ALC fails.
8. The Secretariat shall publicise vessels that are reporting in accordance with this Annex in the SPRFMO Website.

² The Member or CNCP, in coordination with the Secretariat and through communication with the vessel master as appropriate, will endeavour to re-establish normal automatic reception of VMS positions. If such efforts reveal that the vessel is successfully reporting to the Member or CNCP's VMS (indicating that the vessel's ALC hardware is functional), the Secretariat, in coordination with the Member or CNCP will take additional steps to re-establish automatic reporting to the Commission VMS.

COMM 5 - Report - ANNEX 8e

Review Date for CMM 4.03 (new CMM 03-2017). Conservation and Management Measure for the Management of Bottom Fishing in the SPRFMO Convention Area

(COMM5-Inf05)

The Commission agreed to extend the application of CMM 4.03 until the close of the Annual Meeting 2018.

Review

27. This CMM shall apply until the close of the annual Commission meeting in ~~2017~~ 2018 unless determined otherwise by the Commission. It shall be reviewed at the regular meeting of the Commission in ~~2017~~-2018. Such review shall take into account, *inter alia*, the latest advice of the Scientific Committee, including with respect to appropriate catch levels for principal target species and/or appropriate reference periods, in accordance with the objectives described in paragraph 1 of this CMM.

COMM 5 - Report - ANNEX 8f

CMM 4.04 (new: CMM 04-2017). Conservation and Management Measure Establishing a List of Vessels Presumed to Have Carried Out Illegal, Unreported and Unregulated Fishing activities in the SPRFMO Convention Area

(CTC-WP06)

The Commission of the South Pacific Regional Fisheries Management Organisation,

RECALLING that the FAO Council adopted on 23 June 2001 an International Plan of Action to prevent, to deter and eliminate illegal, unreported and unregulated fishing (IPOA-IUU). This plan stipulates that the identification of the vessels carrying out illegal, unreported and unregulated (IUU) activities should follow agreed procedures and be applied in an equitable, transparent and non-discriminatory way;

CONCERNED by the fact that IUU fishing activities in the Convention Area diminish the effectiveness of SPRFMO Conservation and Management Measures (CMMs);

DETERMINED to address the challenge of an increase in IUU fishing activities by way of counter-measures to be applied in respect to the vessels, without prejudice to further measures adopted in respect of flag States under the relevant SPRFMO instruments;

NOTING that efforts to prevent, deter and eliminate IUU fishing must be addressed in the light of all relevant international fisheries instruments and in accordance with other relevant international obligations, including the rights and obligations established under the World Trade Organization (WTO) Agreement;

RECALLING Article 27 of the Convention, which calls on Members to address IUU fishing activities and to establish appropriate cooperative procedures for effective monitoring, control and surveillance of fishing and to ensure compliance with the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 20 of the Convention:

Definition of IUU Activities

1. For the purposes of this CMM, the fishing vessels flying the flag of a non-Member, or a Member or a Cooperating non-Contracting Party (hereafter CNCP), are presumed to have carried out IUU activities in the Convention Area, inter alia, when a Member or a CNCP presents evidence that such vessels:
 - (a) engage in fishing for fishery resources and are not registered on the SPRFMO list of vessels authorised to fish in the Convention Area;
 - (b) engage in fishing for fishery resources whose flag State has exhausted or has no quotas, catch limit or effort allocation, including, if applicable, those received from another Member or CNCP under relevant SPRFMO CMMs;
 - (c) do not record and/or report their catches or catch related data made in the Convention Area, or make false reports;
 - (d) take on board, tranship or land undersized fish in a way that undermines SPRFMO CMMs;
 - (e) engage in fishing during closed fishing periods or in closed areas, without or after exhaustion of a quota or beyond a closed depth, in contravention of SPRFMO CMMs;
 - (f) use prohibited or non-compliant fishing gear in a way that undermines SPRFMO CMMs;
 - (g) tranship with, or participate in joint operations such as re-supply or re-fuelling vessels included in the IUU vessels list;

- (h) are without nationality and engage in fishing for fisheries resources in the Convention Area; and/or
- (i) engage in fishing activities contrary to any other SPRFMO CMMs.

Information on alleged IUU activities

2. Members and CNCPs shall transmit every year to the Executive Secretary at least 90 days before the annual meeting, their list of vessels presumed to be carrying out IUU fishing activities in the Convention Area over the past two years¹, accompanied by suitably documented evidence concerning the presumption of IUU fishing activity.

This list shall be based, *inter alia*, on reports by Members and CNCPs relating to SPRFMO CMMs in force, trade information obtained on the basis of relevant trade statistics such as Food and Agriculture Organization of the United Nations (FAO) data, statistical documents and other national and international verifiable statistics, as well as any other information obtained from port States and/or gathered from the fishing grounds that is suitably documented. Information from Members and CNCPs should be provided in the SPRFMO Reporting Form of Illegal Activity (Annex I).

3. Before or at the same time as transmitting a list of presumed IUU vessels to the Executive Secretary, the Member or CNCP shall notify, either directly or through the Executive Secretary using the Reporting Form in Annex I, the relevant flag State of a vessel's inclusion on this list and provide a copy of the pertinent suitably documented information. The flag State shall promptly acknowledge receipt of the notification.

Draft IUU List

4. On the basis of the information received pursuant to paragraph 2 and/or any other suitably documented information at his/her disposal, the SPRFMO Executive Secretary shall draw up a Draft IUU List. This list shall be drawn up in conformity with Annex II. The Secretary shall transmit it together with the current IUU List, including any inter-sessional amendments, as well as all the supporting evidence provided, to Members and CNCPs whose vessels are included on these lists at least 90 days before the annual meeting.
5. Members and CNCPs, shall transmit their comments, as appropriate, including evidence showing that the listed vessels have neither fished in contravention to SPRFMO CMMs, nor had the possibility of fishing for fishery resources in the Convention Area, at least 30 days before the annual meeting of SPRFMO.
6. The Commission shall request the flag State to notify the owner of the vessel of its inclusion in the Draft IUU List and of the consequences that may result from its inclusion being confirmed in the IUU List adopted by the Commission.

Upon receipt of the Draft IUU List, Members and CNCPs shall closely monitor these vessels included in the Draft IUU List in order to determine their activities and possible changes of name, flag and/or registered owner.

Provisional and current IUU List

7. On the basis of the information received pursuant to paragraph 4 and 5, the Executive Secretary shall re-circulate to the Members and CNCPs two weeks in advance of the Commission meeting the Draft IUU list and the current IUU List, including any intersessional modifications to the current IUU List in the sense of paragraphs 18-20, together with all suitably documented information provided pursuant to paragraph 5.
8. Members and CNCPs may at any time submit to the Executive Secretary any additional information which might be relevant for the CTC to discuss the Draft IUU List. The Executive Secretary shall circulate the information to the official contacts together with all the evidence provided.

¹ Beginning with the entry into force of this CMM

9. The Compliance and Technical Committee of the SPRFMO (CTC) shall examine each year the Draft IUU List and current IUU List.
10. The CTC shall remove a vessel from the Draft IUU List if the flag State demonstrates that:
 - (a) the vessel did not take part in any IUU fishing activities described in paragraph 1, or
 - (b) effective action has been taken in response to the IUU fishing activities in question, including, *inter alia*, prosecution and/or imposition of sanctions of adequate severity. Members and CNCPs will report any actions and measures taken to promote compliance by their flagged vessels with SPRFMO CMMs.
11. Following this examination of the Draft and current IUU List, the CTC shall:
 - (a) Adopt a Provisional IUU List in conformity with **Annex II** following consideration of the Draft IUU List. The Provisional IUU List shall be submitted to the Commission for approval.
 - (b) Recommend to the Commission which, if any, vessels should be removed from the current IUU List adopted at the previous SPRFMO annual meeting, following consideration of that List and after assessing whether the requirements of paragraph 19 are met.

IUU List

12. At its annual meeting the Commission shall review the Provisional IUU List, taking into account any new suitably documented information related to vessels on the Provisional IUU list, and any recommendations to amend the current IUU list made by CTC pursuant to paragraph 10 above, and adopt a new IUU list.
13. On adoption of the list, the Commission shall request Members, CNCPs and non-Members, whose vessels appear on the IUU List:
 - to notify the owner of the vessel identified on the IUU List of its inclusion on the List and the consequences which result from being included on the List, as referred to in paragraph 13;
 - to take all the necessary measures to eliminate these IUU fishing activities, including if necessary, the withdrawal of the registration or of the fishing licenses of these vessels, and to inform the Commission of the measures taken in this respect.
14. Members and CNCPs shall take all necessary non-discriminatory measures, under their applicable legislation and international law:
 - to remove or withdraw any fishing authorisations for fisheries resources under the competence of SPRFMO granted to vessels on the IUU List and not to grant fishing licenses, permits or licenses to those vessels;
 - so that the fishing vessels, support vessels, refueling vessels, the mother-ships and the cargo vessels flying their flag do not assist in any way, engage in fishing processing operations or participate in any transshipment or joint fishing operations with vessels included on the IUU Vessels List;
 - so that vessels on the IUU List are not authorised to land, tranship, re-fuel, re-supply, or engage in other commercial transactions in their ports, except in case of *force majeure*;
 - to prohibit the entry into their ports of vessels included on the IUU List, except in case of *force majeure*;
 - to prohibit the chartering of a vessel included on the IUU List;
 - to refuse to grant their flag to vessels included in the IUU List, except if the vessel has changed owner and the new owner has provided sufficient evidence demonstrating the previous owner or operator has no further legal, beneficial or financial interest in, or control of, the vessel, or having taken into account all relevant facts, the flag Member or CNCP determines that granting the vessel its flag will not result in IUU fishing;
 - to prohibit the imports, or landing and/or transshipment, of species covered by the Convention from vessels included in the IUU List;

- to encourage the importers, transporters and other sectors concerned, to refrain from transaction, transshipment and processing of species covered by the Convention caught by vessels included in the IUU List;
 - to collect and exchange with other Members and CNCPs any appropriate information with the aim of searching for, controlling and preventing false import/export certificates regarding species covered by the Convention from vessels included in the IUU List.
15. The Executive Secretary will take any necessary measure to ensure publicity of the IUU List adopted by SPRFMO, in a manner consistent with any applicable confidentiality requirements, and through electronic means, by placing it on the SPRFMO web site. Furthermore, the Executive Secretary will transmit the IUU List to the FAO and to appropriate regional fisheries organisations for the purposes of enhanced co-operation between SPRFMO and these organisations in order to prevent, deter and eliminate IUU fishing.
 16. Upon receipt of the final IUU vessel list established by another Regional Fisheries Management Organisation (RFMO), and any other information regarding the list, including its modification, the Executive Secretary shall circulate it to the Members and CNCPs and shall place it on the SPRFMO web site.
 17. Measures referred to in paragraph 13 shall apply *mutatis mutandis* to fishing vessels included in the final IUU list established by another RFMO and operating in the SPRFMO Convention Area.
 18. Without prejudice to the rights of flag States and coastal States to take proper action consistent with international law, including applicable WTO obligations, Members and CNCPs shall not take any unilateral trade measures or other sanctions against vessels provisionally included in the Draft and Provisional IUU List, pursuant to paragraph 4 and 10, or which have been already removed from the IUU List, pursuant to paragraph 11 or paragraphs 18-20, on the grounds that such vessels are involved in IUU fishing activities.

Modification of the IUU List

19. A Member, CNCP or non-Member whose vessel appears on the IUU List may request the removal of this vessel from the list during the intersessional period by providing to the Executive Secretary suitably documented information demonstrating that:
 - it has adopted measures so that this vessel conforms with SPRFMO CMMs; and
 - it is and will continue to assume effectively its responsibilities with respect to this vessel in particular as regards the monitoring and control of the fishing activities executed by this vessel in the SPRFMO Convention Area; and
 - it has taken effective action in response to the IUU fishing activities in question including prosecution and/or imposition of sanctions of adequate severity; and/or
 - the vessel has changed ownership and that the new owner can establish the previous owner no longer has any legal, financial or real interests in the vessel or exercises control over it and that the new owner has not participated in IUU fishing.
20. On the basis of the information received in accordance with paragraph 18, the SPRFMO Executive Secretary will transmit electronically the removal request, with all the supporting information to the official contacts of each member within 15 days following the notification of the removal request. The intersessional decision on the request to remove the vessel shall be made electronically in accordance with Rule 7, paragraphs 8 to 11 of the Rules of Procedure. In the event that a member objects to the removal request, the decision will be taken at the subsequent annual meeting of the Commission.
21. The Executive Secretary will communicate the result of the decision to all Members and CNCPs.
22. The Executive Secretary will take the necessary measures to remove the vessel concerned from the IUU List, as published on the SPRFMO web site. Moreover, the Executive Secretary will forward the decision of removal of the vessel to the FAO and appropriate regional fisheries organisations.

Information indicating a change of circumstances of vessels appearing on the current IUU list

23. A Member or CNCP with information indicating a change of name and/or an International Radio Call Sign (IRCS) of a vessel appearing on the SPRFMO IUU List shall, as soon as practicable, transmit such information to the Executive Secretary. The Executive Secretary shall communicate such information to all Members and CNCPs and, after verification², update the current IUU list on the SPRFMO website to reflect such information.
-

NOTE by Secretariat: The annexes remained unchanged and therefore are not reproduced here (refer to CMM 04-2017):

ANNEX I. SPRFMO Reporting Form for Illegal Activity

ANNEX II. Information to be included in all IUU Lists (Draft, Provisional and Final)

² If the Secretariat, after reasonable efforts, is unable to verify the information submitted by the Member or CNCP the vessel name or identifying number will not be updated.

COMM 5 - Report - ANNEX 8g

CMM 3.05 (new: CMM 12-2017). Conservation and Management Measure for the Regulation of Transshipment and Other Transfer Activities

(COMM5-WP01-Rev2)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING that Article 1(1)(o) of the Convention defines "transshipment" as the unloading of all or any of the fishery resources or fishery resource products derived from fishing in the Convention Area on board a fishing vessel to another fishing vessel either at sea or in port;

RECOGNISING that transshipment at sea is a common global practice, but that unregulated and unreported transshipment of catches of fishery resources, in particular on the high seas, contributes to distorted reporting of catches of such stocks and supports illegal, unreported and unregulated (IUU) fishing in the Convention Area;

RECOGNISING the importance of adequately regulating, monitoring and controlling transshipment at sea to contribute to combating IUU fishing activities, and that States should take all necessary measures to ensure that vessels flying their flag do not engage in transshipment of fish caught by fishing vessels engaged in IUU fishing through adequate regulation, monitoring and control of such transshipment of fish;

NOTING that Article 18 (3)(f) and (h) of the *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* requires flag States to adopt measures to regulate transshipment on the high seas to ensure that the effectiveness of conservation and management measures is not undermined, and port States to adopt regulations to prohibit landings and transshipments where the catch has been taken in a manner which undermines the effectiveness of regional conservation and management measures on the high seas;

RECALLING Articles 25(1)(d), 26(2)(a) and 27(1)(c) of the Convention, which prescribe, *inter alia*, that Members of the Commission shall take all necessary measures to ensure that fishing vessels flying its flag land or tranship fishery resources caught in the Convention Area in accordance with standards and procedures adopted by the Commission;

ADOPTS the following Conservation and Management Measure (CMM) in accordance with Article 8 of the Convention:

GENERAL PROVISIONS FOR ALL VESSELS ENGAGED IN FISHING IN THE CONVENTION AREA

1. For the purposes of this CMM, "competent authorities" means the authorities of the Member or CNCP under whose flag the vessel is operating.
2. Transshipments at sea and in port shall only be undertaken between vessels included in the Commission Record of Vessels.
3. At sea transfer of fuel, crew, gear or any other supplies between two vessels in the Convention Area shall only be undertaken between vessels included in the Commission Record of Vessels.

TRANSHIPMENTS OF *TRACHURUS MURPHYI* AND DEMERSAL SPECIES CAUGHT IN THE CONVENTION AREA

4. The competent authorities of the receiving fishing vessel (carrier vessel) shall notify the Secretariat, at least 7 days in advance, of a 14 day period during which transshipments of *Trachurus murphyi* or demersal species caught in the Convention Area, regardless of where the transshipment takes place, are scheduled to occur. The receiving vessel notification shall include the relevant information available regarding the transshipment operation, including the estimated date and time, anticipated location, fishery, and information about the vessels intending to tranship, in accordance with Annex A as much as practicable. The competent authorities of both the unloading and receiving vessels shall notify the Secretariat of an intention to tranship at least 12 hours before the estimated time of such activity. The notification shall include the estimated date and time, anticipated location, fishery, and information about the vessels intending to tranship, in accordance with Annex A. The competent authorities may authorise the vessel operator to provide notification directly to the Secretariat. The Secretariat shall make this information available on the Members' section of the Commission website as soon as possible.
5. If, in accordance with the applicable CMMs an observer¹ is on board the unloading or receiving vessel, the observer shall monitor the transshipment activities.
6. An observer monitoring transshipment under paragraph 5 shall complete a transshipment logsheet, as set out in Annex B, to verify the quantity and species of the fishery resources being transhipped, and shall provide a copy of the logsheet to the competent authorities of the observed vessel. The competent authorities of the observed vessel shall submit the observer data of the transshipment logsheet to the Secretariat, no later than 15 days from debarkation of the observer.
7. For the purpose of verifying the quantity and species of the fishery resources being transhipped, and in order to ensure that proper verification can occur, the observer on board shall have full access to the observed vessel, including crew, gear, equipment, records² and fish holds.
8. The competent authorities of the unloading fishing vessel and the receiving fishing vessel shall notify all the operational details to the Secretariat, as specified in Annex C, no later than 7 days after the transshipment is carried out. The competent authorities may authorise the vessel operator to provide this information directly to the Secretariat by email; should the Secretariat require any clarification; those requests shall be directed to the competent authorities of the relevant vessel. The Secretariat shall make a summary of this information available on the Members' section of the Commission website.

REVIEW

9. This CMM shall enter into force 30 days after the conclusion of the annual Commission meeting in 2016.
10. This CMM shall be reviewed at the regular meeting of the Commission in 2018. Such review shall take into account, inter alia, the latest advice of the Compliance and Technical Committee with respect to the effectiveness of this CMM in providing the Commission with information about transshipments and other transfer activities and supporting monitoring, control, and surveillance activities; appropriate levels of observer coverage; and the scope of this CMM.

¹ Until such time as the Commission implements an observer programme, the term "observer" means a suitably qualified person with training in specialised sampling techniques and environmental observations who has been designated as a fisheries observer under a Member's or CNCP's observer programme.

² This includes electronic records.

COMM 5 - Report - ANNEX 8h

CMM 2.07 (new: CMM 07-2017). Conservation and Management Measure on Minimum Standards of Inspection in Port

(CTC4-WP01-Rev4)

The Commission of the South Pacific Regional Fisheries Management Organisation;

DEEPLY CONCERNED about illegal, unreported and unregulated fishing in the SPRFMO Area and its detrimental effect upon fish stocks, marine ecosystems and the livelihoods of legitimate fishers in particular in developing States;

CONSCIOUS of the role of the port State in the adoption of effective measures to promote the sustainable use and the long-term conservation of living marine resources;

RECOGNISING that measures to combat illegal, unreported and unregulated fishing should build on the primary responsibility of flag States and use all available jurisdiction in accordance with international law, including port State measures, coastal State measures, market related measures and measures to ensure that nationals do not support or engage in illegal, unreported and unregulated fishing;

RECOGNISING that port State measures provide a powerful and cost-effective means of preventing, deterring and eliminating illegal, unreported and unregulated fishing;

AWARE OF the need for increasing coordination at the regional and interregional levels to combat illegal, unreported and unregulated fishing through port State measures;

BEARING IN MIND that, in the exercise of their sovereignty over ports located in their territory, Member and Cooperating Non-Contracting Parties (CNCs) may adopt more stringent measures, in accordance with international law;

RECALLING the relevant provisions of the United Nations Convention on the Law of the Sea of 10 December 1982;

RECALLING the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 December 1995, the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas of 24 November 1993 and the 1995 FAO Code of Conduct for Responsible Fisheries;

RECALLING Article 27 of the SPRFMO Convention, which calls on Members to address IUU fishing activities and to establish appropriate cooperative procedures for effective monitoring, control and surveillance of fishing and to ensure compliance with the Convention;

BEARING IN MIND Article 12 of the FAO Agreement on Port States Measure and the need to take into account the specifics of the fleets operating in the SPRFMO Convention, the number of catches, the frequency and mode of port landings, and the status of the stocks, amongst others, in order to determine the level of port inspections sufficient to achieve the objective of preventing, deterring and eliminating IUU fishing;

ADOPTS the following Conservation and Management Measure (CMM) in accordance with Articles 8 and 20 of the Convention:

Scope

1. With a view to monitor compliance with SPRFMO CMMs, each Member and Cooperating Non-Contracting Party (CNCP), in its capacity as a port State, shall apply this CMM for an effective scheme of port inspections in respect of foreign fishing vessels carrying SPRFMO-managed species caught in the SPRFMO Convention Area and/or fish products originating from such species that have not been previously landed or transhipped at port, or at sea following the applicable SPRFMO procedures, hereinafter referred to as "foreign fishing vessels".
2. Without prejudice to specifically applicable provisions of other SPRFMO CMMs, and except as otherwise provided in this CMM, this CMM shall apply to all foreign fishing vessels.
3. Each Member and CNCP may, in its capacity as a port State, decide not to apply this CMM to:
 - (a) foreign fishing vessels chartered by its nationals operating under its authority. Chartered fishing vessels shall be subject to measures by the port State which are as effective as measures applied in relation to vessels entitled to fly its flag.
 - (b) vessels of a neighboring State that are engaged in artisanal fishing for subsistence, provided that the port State and the flag State cooperate to ensure that such vessels do not engage in IUU fishing or fishing related activities in support of such fishing.
 - (c) container vessels that are not carrying fish or, if carrying fish, only fish that have been previously landed, provided that there are no clear grounds for suspecting that such vessels have engaged in fishing related activities in support of IUU fishing.
4. Members and CNCPs shall take necessary action to inform fishing vessels entitled to fly their flag of this and other relevant SPRFMO CMMs.

Points Of Contact

5. Each Member and CNCP shall designate a point of contact for the purposes of receiving notifications pursuant to paragraph 11. Each Member and CNCP shall designate a point of contact for the purpose of receiving inspection reports pursuant to paragraph 24(b) of this CMM. It shall transmit the name and contact information for its points of contact to the SPRFMO Executive Secretary no later than 30 days following the entry into force of this CMM. Any subsequent changes shall be notified to the SPRFMO Executive Secretary at least 14 days before such changes take effect. The SPRFMO Executive Secretary shall promptly notify Members and CNCPs of any such change.
6. The SPRFMO Executive Secretary shall establish and maintain a register of points of contact based on the lists submitted by the Members and CNCPs. The register and any subsequent changes shall be published promptly on the SPRFMO website.

Designated Ports

7. Each Member and CNCP shall designate its ports to which foreign fishing vessels may request entry pursuant to this CMM.
8. Each Member and CNCP shall, to the greatest extent possible, ensure that it has sufficient capacity to conduct inspections in every designated port pursuant to this CMM.
9. Each Member and CNCP shall provide to the SPRFMO Executive Secretary within 30 days from the date of entry into force of this CMM list of designated ports. Any subsequent changes to this list shall be notified to the SPRFMO Executive Secretary at least 30 days before the change takes effect.
10. The SPRFMO Executive Secretary shall establish and maintain a register of designated ports based on the lists submitted by the port Members and CNCPs. The register and any subsequent change shall be published promptly on the SPRFMO website.

Prior Notification

11. Each Member and CNCP, in its capacity as a port State shall, except as provided for under paragraph 12 of this CMM, require foreign fishing vessels seeking to use its ports for the purpose of landing and/or transhipment to submit the information in the Port Call Request Template

located in Annex I to its point of contact identified in paragraph 5, at least 48 hours before the estimated time of arrival at the port. Each Member and CNCP, in its capacity as a port State may also request additional information as it may require to determine whether the vessel has engaged in IUU fishing, or related activities.

12. Each Member and CNCP, in its capacity as a port State may prescribe a longer or shorter notification period than specified in paragraph 11, taking into account, *inter alia*, the type of fishery product, the distance between the fishing grounds and its ports. In such a case, the port State shall inform the SPRFMO Executive Secretary, who shall publish the information promptly on the SPRFMO website.
13. After receiving the relevant information pursuant to paragraph 11, as well as such other information as it may require to determine whether the foreign fishing vessel requesting entry into its port has engaged in IUU fishing, the Member or CNCP, in its capacity as a port State shall decide whether to authorise or deny the entry of the vessel into its port. In case the port State decides to authorise the entry of the vessel into its port, the following provisions on port inspection shall apply. Where a vessel has been denied entry, the port State shall report this to the Members and CNCPs.

Port Inspections

14. Inspections shall be carried out by the competent authority of the port Members and CNCPs.
15. Each year Members and CNCPs shall inspect at least 5% of landing and transshipment operations in their designated ports as are made by foreign fishing vessels.
16. Port Members and CNCPs shall, in accordance with their domestic law, inspect foreign fishing when:
 - (a) there is a request from other Members and CNCPs or relevant regional fisheries management organisations that a particular vessel be inspected, particularly where such requests are supported by evidence of IUU fishing by the vessel in question, and there are clear grounds for suspecting that a vessel has engaged in IUU fishing;
 - (b) a vessel has failed to provide complete information as required in paragraph 11;
 - (c) the vessel has been denied entry or use of a port in accordance with this or other RFMO's provisions.
17. Consistent with CMM 4.04 (IUU List;2016), except for the purposes of inspection, enforcement action or emergency, port Members and CNCPs shall take all necessary measures, subject to, and in accordance with, their applicable laws and regulations and international law, to deny port access to fishing vessels included in the list of SPRFMO IUU vessels.

Inspection Procedure

18. Each Member and CNCP shall ensure that as a minimum standard its inspectors carry out the functions set forth in the Port State Inspection Standards in Annex II.
19. Each inspector shall carry a document of identity issued by Members and CNCPs, in their quality of port States. In accordance with domestic laws, port States inspectors may examine all relevant areas, decks and rooms of the fishing vessel, catches processed or otherwise, nets or other fishing gears, equipment both technical and electronic, records of transmissions and any relevant documents, including fishing logbooks, cargo manifests and mate's receipts and landing declarations in case of transshipment, which they deem necessary to ensure compliance with the SPRFMO CMMs. They may take copies of any documents considered relevant, and they may also question the master and any other person on the vessel being inspected.
20. Inspections shall involve the monitoring of the landing or transshipment and include a cross-check between the quantities by species notified in the prior notification message in paragraph 11 above and held on board. Inspections shall be carried out in such a way that the fishing vessel suffers the minimum interference and inconvenience, and that degradation of the quality of the catch is avoided to the extent practicable.
21. On completion of the inspection, the port State inspector shall provide the master of the foreign fishing vessel with the inspection report containing the findings of the inspection, to be signed

by the inspector and the master. The master's signature shall serve only as acknowledgement of the receipt of a copy of the report. The master shall be given the opportunity to add any comments or objection to the report, and to contact the competent authority of the flag Member or CNCP. A copy of the report shall be provided to the master.

22. The port Member or CNCP, in its capacity as a port State shall transmit a copy of the inspection report to the SPRFMO Executive Secretary no later than 15¹ working days following the date of completion of the inspection using the Format for Port Inspection Reports in Annex III. If the inspection report cannot be transmitted within 15 working days, the port State shall notify the SPRFMO Executive Secretary within the 15 working day time period the reasons for the delay and when the report will be submitted.
23. Members and CNCPs shall take necessary action to ensure that masters facilitate safe access to the fishing vessel, cooperate with the competent authority of the port State, facilitate the inspection and communication and not obstruct, intimidate or interfere, or cause other persons to obstruct, intimidate or interfere with port State inspectors in the execution of their duties.

Procedure in The Event of Infringements

24. If the information collected during the inspection provides evidence that a foreign fishing vessel has committed a breach of the SPRFMO CMMs, the inspector shall:
 - (a) record the breach in the inspection report;
 - (b) transmit the inspection report, including possible subsequent measures that could be taken by the port State competent authority, to the port State competent authorities, which shall forward a copy to the SPRFMO Executive Secretary and to the flag Member or CNCP point of contact as soon as possible and no later than 5 working days;
 - (c) to the extent practicable, ensure safekeeping of the evidence pertaining to such alleged breach.
25. If the breach falls within the legal jurisdiction of the Member or CNCP, in its capacity as a port State, the port State may take action in accordance with its domestic laws. The port State shall promptly notify the action taken to the competent authority of the flag Member or CNCP and to the SPRFMO Executive Secretary, which shall promptly publish this information in a secured part of the SPRFMO website.
26. Other infringements shall be referred to the flag Member or CNCP. Upon receiving the copy of the inspection report, the flag Member or CNCP shall promptly investigate the alleged infringement and notify the SPRFMO Executive Secretary of the status of the investigation and of any enforcement action that may have been taken within 90 days of such receipt. If the flag Member or CNCP cannot provide the SPRFMO Executive Secretary this status report within 90 days of such receipt, the flag Member or CNCP should notify the SPRFMO Executive Secretary within the 90 day time period the reasons for the delay and when the status report will be submitted. The SPRFMO Executive Secretary shall promptly publish this information in a secured part of the SPRFMO website.
27. Should the inspection provide evidence that the inspected vessel has engaged in IUU activities as referred to in CMM 4.04 (IUU List;2016) the Member or CNCP, in its capacity as a port State shall promptly report the case to the flag Member or CNCP and notify as soon as possible the SPRFMO Executive Secretary, along with its supporting evidence, for the purpose of inclusion of the vessel in the draft IUU list.

¹ The time frames in paragraph 22 were amended at COMM-03 as recommended by CTC-02.

Requirements of developing Members and CNCPs

28. Members and CNCPs shall give full recognition to the special requirements of developing Members and CNCPs in relation to a port inspection scheme consistent with this CMM. Members and CNCPs shall, either directly or through the SPRFMO, provide assistance to developing Members and CNCPs in order to, *inter alia*:
- (a) Develop their capacity including by providing technical assistance and establishing an appropriate funding mechanism to support and strengthen the development and implementation of an effective system of port inspection at national, regional or international levels and to ensure that a disproportionate burden resulting from the implementation of this CMM is not unnecessarily transferred to them;
 - (b) Facilitate their participation in meetings and/or training programmes of relevant regional and international organisations that promote the effective development and implementation of a system of port inspection, including monitoring, control and surveillance, enforcement and legal proceedings for infractions and dispute settlements pursuant to this CMM; and
 - (c) Either directly or through the SPRFMO, assess the special requirements of developing Members and CNCPs concerning the implementation of this CMM.

General Provisions

29. Nothing in this CMM affects the entry of vessels to port in accordance with international law for reasons of *force majeure* or distress or prevents a port State from permitting entry into port to a vessel exclusively for the purpose of rendering assistance to persons, ships or aircraft in danger or distress.
30. Nothing in this CMM shall prejudice the rights, jurisdiction and duties of Members and CNCPs under international law. In particular, nothing in this CMM shall be construed to affect the exercise by Members and CNCPs of their authority over their ports in accordance with international law, including their right to deny entry thereto as well as to adopt more stringent measures than those provided for in this CMM.
31. This CMM shall be interpreted and applied in conformity with international law, taking into account applicable international rules and standards, including those established through the International Maritime Organization, as well as other international instruments.
32. Members and CNCPs shall fulfill in good faith the obligations assumed pursuant to this CMM and shall exercise the rights recognised herein in a manner that would not constitute an abuse of right.
33. Members and CNCPs are encouraged to enter into bilateral agreements/arrangements that allow for an inspector exchange programme designed to promote cooperation, share information, and educate each party's inspectors on inspection strategies and methodologies which promote compliance with SPRFMO CMMs. A description of such programmes should be provided to the SPRFMO Executive Secretary who should publish it on the SPRFMO website.
34. Each Member or CNCNP, in its capacity as a port State may, in accordance with its domestic laws and regulations, invite officials from the flag Member or CNCNP to observe or take part in the inspection of a vessel of that flag based on appropriate agreements or arrangements. Flag Members and CNCNs shall consider and act on reports of infringements from inspectors of a port State on a similar basis as the reports from their own inspectors, in accordance with their domestic laws. Members and CNCNs shall collaborate, in accordance with their domestic laws, in order to facilitate judicial or other proceedings arising from inspection reports as set out in this CMM.
35. The SPRFMO Commission shall review this CMM no later than 2019~~7~~ and consider revisions to improve its effectiveness and take into account developments in other RFMOs and the FAO Port State Measures Agreement. The Secretariat will report annually on the implementation of this CMM.

Annex I - PORT CALL REQUEST TEMPLATE

Vessel Identification:

Vessel Name	Vessel flag	IMO ship number	Call sign	External Identification

Port Call Details:

Intended port of call ¹	Port State	Purpose ² of port call	Estimated arrival date	Estimated arrival time	Current date

¹Should be a designated port as listed on the SPRFMO port register

² e.g. landing, transshipment, refuelling

SPRFMO managed species held on-board:

Species	FAO area of capture	Product state	Total kilograms held on board	Amount to be transhipped /landed	Recipient of transhipped /landed amount

If no SPRFMO species and/or fish products originating from such species are held on board, then enter "nil"

Relevant fishing authorisation details:

Identifier	Issued by	Validity	Fishing area(s)	Species	Gear ³

³If the authorisation is for transshipments enter "tranship" as the gear

- Is a copy of the crew list attached?

Yes	No

This form should be transmitted to the appropriate Point of Contact at least 48 hours prior to the estimated time of arrival at the port. Contact information can be found on the SPRFMO website:

[\(http://www.sprfmo.int/points-of-contact/\)](http://www.sprfmo.int/points-of-contact/)

Annex II - PORT STATE INSPECTION STANDARDS

Inspectors shall:

- (a) verify, to the extent possible, that the vessel identification documentation onboard and information relating to the owner of the vessel is true, complete and correct, including through appropriate contacts with the flag State or international records of vessels if necessary;
- (b) verify that the vessel's flag and markings (e.g. name, external registration number, International Maritime Organization (IMO) ship identification number, international radio call sign and other markings, main dimensions) are consistent with information contained in the documentation;
- (c) verify, to the extent possible, that the authorisations for fishing and fishing related activities are true, complete, correct and consistent with the information provided in the port call request;
- (d) review all other relevant documentation and records held onboard, including, to the extent possible, those in electronic format and vessel monitoring system (VMS) data from the flag State or SPRFMO Secretariat or other relevant regional fisheries management organisations (RFMOs). Relevant documentation may include logbooks, catch, transshipment and trade documents, crew lists, stowage plans and drawings, descriptions of fish holds, and documents required pursuant to the Convention on International Trade in Endangered Species of Wild Fauna and Flora;
- (e) examine, to the extent possible, all relevant fishing gear on-board, including any gear stowed out of sight as well as related devices, and to the extent possible, verify that they are in conformity with the conditions of the authorisations. The fishing gear shall, to the extent possible, also be checked to ensure that features such as the mesh and twine size, devices and attachments, dimensions and configuration of nets, pots, dredges, hook sizes and numbers are in conformity with applicable regulations and that the markings correspond to those authorised for the vessel;
- (f) determine, to the extent possible, whether the fish on board was harvested in accordance with the applicable authorisations;
- (g) examine the fish, including by sampling, to determine its quantity and composition. In doing so, inspectors may open containers where the fish has been pre-packed and move the catch or containers to ascertain the integrity of fish holds. Such examination may include inspections of product type and determination of nominal weight;
- (h) evaluate whether there is clear evidence for believing that a vessel has engaged in IUU fishing or fishing related activities in support of such fishing;
- (i) provide the master of the vessel with the report containing the result of the inspection, including possible measures that could be taken, to be signed by the inspector and the master. The master's signature on the report shall serve only as acknowledgment of the receipt of a copy of the report. The master shall be given the opportunity to add any comments or objection to the report, and, as appropriate, to contact the relevant authorities of the flag State in particular where the master has serious difficulties in understanding the content of the report. A copy of the report shall be provided to the master; and
- (j) arrange, where necessary and possible, for translation of relevant documentation.

Annex III – FORMAT FOR PORT INSPECTION REPORTS

Inspection details:

Inspection report number		Principal Inspector's name	
Port State		Inspecting authority	
Port of inspection		Purpose of call	
Inspection start date		Inspection start time	
Inspection end date		Inspection end time	
Prior notification received?		Prior notification details consistent with inspection?	

Vessel details:

Vessel name		Vessel Flag	
Vessel type		IRCS	
External identification		IMO number	
Vessel owner			
Vessel operator			
Vessel master (and nationality)			
Vessel agent			
VMS present?		VMS type	

Relevant fishing authorisations:

Authorisation identifier		Issued by	
Validity		Fishing areas	
Species		Gear ²	
Is vessel on the SPRFMO authorised vessel list?		Currently authorised?	

² If the authorisation is for transshipment enter "tranship" as the gear.

SPRFMO managed species off loaded (during this port call):

Species	FAO area of capture	Product state	Declared quantity off loaded	Quantity off loaded

SPRFMO managed species retained on-board:

Species	FAO area of capture	Product state	Declared quantity held on board	Quantity held on board

SPRFMO managed species received from transshipment (during this port call):

Species	FAO area of capture	Product state	Declared quantity received	Quantity received

Examinations and Findings:

Section	Comments
Examination of Logbooks and other documentation	
Type of gear on board	
Findings by inspector	
Apparent infringements (include reference to relevant legal instruments)	
Master's comments	
Actions taken	
Master's signature	
Inspector's signature	

Upon completion, a copy of this form shall be provided to the vessel master. Subsequently, a copy should also be transmitted to the SPRFMO Executive Secretary within 15 days. If this cannot be achieved, then the reasons for the delay and an estimated submission date shall be transmitted to the SPRFMO Executive Secretary within 15 days of the completion of the inspection.

If the information collected provides evidence that a breach of any SPRFMO CMM has occurred then this form should be transmitted to the competent Port State authorities (who shall forward a copy to the SPRFMO Executive Secretary and to the relevant point of contact as soon as possible and no later than 5 working days).

COMM 5 - Report - ANNEX 8i

CMM 4.09 (new: CMM 09-2017). Conservation and Management Measure for Minimising Bycatch of Seabirds in the SPRFMO Convention Area

(CTC4-WP02-Rev3)

The Commission of the South Pacific Regional Fisheries Management Organisation;

CONCERNED that some species of albatrosses and petrels are threatened with global extinction;

RECOGNISING the need to strengthen mechanisms to protect seabirds in the Pacific Ocean;

NOTING the overlap in the distribution of albatrosses and petrels with fishing effort in the Convention Area as shown in SWG-11-INF-02 (rev 1) and SWG-11-INF-02a;

FURTHER RECOGNISING that Article 3 (1) of the Convention requires, in giving effect to its objective, that the conservation and management of fishery resources shall take into account best international practices, that fishing shall take into account the impacts on non-target and associated or dependent species, and shall apply the Precautionary Approach;

TAKING INTO ACCOUNT the United Nations Food and Agriculture Organization (FAO) International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds);

FURTHER TAKING INTO ACCOUNT the FAO Technical Guidelines for Responsible Fisheries concerning best practices to reduce incidental catch of seabirds in capture fisheries;

NOTING the Agreement on the Conservation of Albatrosses and Petrels (ACAP) has established best practice seabird bycatch mitigation measures for trawl and demersal longline fisheries;

NOTING that best practice seabird mitigation is supported by ongoing research and improvements;

FURTHER NOTING that the Scientific Committee endorsed the ACAP best practice guidance;

ADOPTS in accordance with Article 8 and 20 of the Convention, the following Conservation and Management Measure (CMM):

1. Members and Cooperating non-Contracting Parties (CNCs) shall require vessels flying their flag and using demersal longlines, to implement seabird mitigation measures, as described in Annex 1.
2. Subject to paragraph 3, Members and CNCs shall require vessels flying their flag and using trawl gear to implement seabird mitigation measures, as described in Annex 2.
3. Vessels using trawl gear that discharge no biological material shall be exempt from applying the seabird mitigation measures described in Annex 2. This provision shall be subject to periodic review or review when new information is available.
4. Use of mitigation measures detailed in this CMM are subject to safety considerations for vessels and crew in accordance with international law.
5. Members and CNCs shall implement this CMM by July 31st 2015 unless decided otherwise by the Commission based on the results of the Scientific Committee's consideration of the issue at its 2014 meeting.
6. Members and CNCs are encouraged to adopt measures aimed at ensuring that seabirds captured or entangled alive during any fishing operations in the Convention Area are released alive and in as good condition as possible. Research into the survival of released seabirds is encouraged.
7. Members and CNCs shall record data, in accordance with CMM 4.02 (Data Standards; 2016) and through existing observer programmes, on all interactions with seabirds. In addition, Members and CNCs are encouraged to record data on seabird observations.

8. Members and CNCs shall report the information collected in paragraph 7 above annually to the Secretariat in accordance with both subparagraph 1(e) and its associated Annexes, and subparagraph 2(c) and Annex 7(G) of CMM 4.02 (Data Standards; 2016). Members and CNCs are also encouraged to report these data in their National Reports to the Scientific Committee.
 9. In their annual national science reports to the Scientific Committee, Members and CNCs shall report annually, on the seabird mitigation measures used by each vessel flying their flag and fishing in the Convention Area, as well as any observed seabird interaction data and the level of observer coverage focussed on recording seabird bycatch.
 10. The Scientific Committee will report on the number and location of seabird interactions annually and provide advice and recommendations to the Commission on possible improvements to further mitigate seabird interactions, including inter alia, the potential use of trigger limits to manage the incidental catch of seabirds in the SPRFMO Convention Area. Further, the Scientific Committee shall consider any relevant advice from the ACAP Advisory Committee.
 11. Nothing in this measure shall affect the rights of Members and CNCs to apply additional or more stringent compatible measures to their flagged vessels conducting demersal longline or trawl fishing in the Convention Area.
 12. Nothing in this measure shall affect the rights of Members and CNCs to apply higher levels of observer coverage to monitor the effectiveness of mitigation measures or collect data on seabird interactions, including mortality rates.
 13. The Scientific Committee will annually review any new information on new or existing mitigation measures and on seabird interactions from observer programmes or other research and provide advice to the Commission on the need to implement particular measures for specific gear types or fisheries, or make other amendments to this Measure
-

NOTE by Secretariat: The annexes remained unchanged and therefore are not reproduced here (refer to CMM 09-2017):

Annex 1. Seabird mitigation specifications for demersal longline fishing

Annex 2. Seabird mitigation specifications for trawl fishing

COMM 5 - Report - ANNEX 8j

CMM 4.10 (new: CMM 10-2017). Conservation and Management Measure for the Establishment of a Compliance and Monitoring Scheme in the SPRFMO Convention Area

(CTC4-WP03-Rev2)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING the relevant provisions of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, in particular Articles 24, 25 and 26;

NOTING that Article 24 of the Convention requires each Member of the Commission to implement any Conservation and Management Measures (CMMs) adopted by the Commission;

MINDFUL of the rights and obligations of Members of the Commission in promoting the effective implementation of CMMs adopted by the Commission;

NOTING that in accordance with international law, Members have responsibilities to exercise effective control over their flagged vessels and their nationals;

RECOGNISING the importance of introducing a robust compliance review mechanism by which the compliance of each Member is examined in depth on a yearly basis;

ADOPTS the following CMM to establish a SPRFMO Compliance and Monitoring Scheme (CMS):

I. Purpose

1. The purpose of the SPRFMO CMS is to ensure that Members and Cooperating Non-Contracting Parties (CNCs) implement and comply with obligations arising under the Convention and CMMs adopted by the Commission. The CMS is designed to:
 - (a) Assess compliance by Members and CNCs with their obligations under the Convention and CMMs.
 - (b) Identify areas in which technical assistance or capacity building may be needed to assist Members and CNCs to achieve compliance.
 - (c) Identify aspects of CMMs which may require improvement or amendment to facilitate or advance their implementation. These findings and subsequent actions shall not necessarily replace any review procedure established in accordance with Article 30 of the Convention.
 - (d) Take action against non-compliance through preventive and remedial options that should include a range of possible responses that take into account the reasons for and degree of non-compliance, as assigned in accordance with paragraph 15 (a).

II. Scope and application

2. At each annual meeting, with the assistance of the Compliance and Technical Committee (CTC), the Commission shall evaluate Members' and CNCs' compliance with their obligations arising from the Convention, in particular Articles 24, 25 and 26, and CMMs adopted by the Commission included in Annex II of this measure. The assessment should cover the period 1 November till 31 October of the subsequent year.
3. The Commission shall also review Compliance Action Plans and other recommendations on compliance adopted by the Commission, in accordance with this CMM, in previous years' Final Compliance Reports in order to assess how they have been implemented by the concerned Members and CNCs.
4. Each year, the Commission shall consider and identify whether compliance with additional CMMs should be evaluated annually or on another basis.

III. Implementation Reports

5.
 - (a) At least 90 days before the start of the CTC meeting Members and CNCPs should provide the Secretariat with their Implementation reports as required by Article 24 (2) of the Convention and any other relevant CMMs on the basis of the template at Annex II.
 - (b) Until the template referred to above is adopted, the provisional template in Annex II will be used. The Secretariat shall amend the template in Annex II as soon as practicable after the Commission meeting to incorporate obligations from new or amended CMMs adopted by the Commission.

IV. Draft Compliance Report

6. Prior to the annual meeting of the CTC, the SPRFMO Secretariat shall compile information received from Members and CNCPs including their Implementation reports, data collection programmes of the Commission and, where appropriate, any suitably documented information provided by other relevant sources, and shall prepare the Draft Compliance Report using the template in Annex III.
7. The SPRFMO Secretariat shall provide to each Member and CNCP its respective section of the Initial Draft Compliance Report no later than 60 days before the annual CTC meeting.
8. Each Member and CNCP shall comment on the Draft Compliance Report providing any additional information it deems suitable to the Secretariat no later than 30 days before the annual CTC meeting. This information shall, as appropriate:
 - (a) provide additional information, clarifications, amendments or corrections necessary to address the potential compliance issues identified or respond to any other request for additional information;
 - (b) identify any particular causes of the potential compliance issues or difficulties with respect to implementation of the obligation in question, or circumstances which may mitigate the potential compliance issues;
 - (c) identify technical assistance or capacity building needed to assist Members and CNCPs to address potential compliance issues.
9. The SPRFMO Secretariat shall compile a revised Draft Compliance Report which shall include all information, clarifications and comments provided by Members and CNCPs in response to the initial Draft Compliance Report, as described in paragraph 8 above.
10. The SPRFMO Secretariat shall circulate to Members and CNCPs the revised Draft Compliance Report no later than 14 days before the annual CTC meeting, by making it available on the non-public section of the Commission website. As soon as practicable after posting it, the Secretariat shall notify Members and CNCPs of its availability.

V. Provisional Compliance Report

11. At its annual meeting, the CTC shall consider the Draft Compliance Report, and may take into account any additional information provided during the meeting of the CTC by Members, CNCPs and other observers, including non-governmental organisations and other organisations concerned with matters relevant to the implementation of the Convention. CTC shall identify any potential compliance issues for each Member and CNCP.
12. On the basis of the information provided, the CTC shall develop a Provisional Compliance Report, based on the issues identified in respect of that Member or CNCP and using the criteria and considerations for assessing compliance status set out in Annex I. The Provisional Compliance Report shall include recommendations for the Commission for any follow-up corrective action needed and any preventive or remedial action taken, or proposed to be taken, by the Member or CNCP. Based on the status accorded, those recommendations may include the need for the Commission to undertake a Compliance Review, develop a Compliance Action Plan or identify a Compliance Remedy.

13. The Provisional Compliance Report will include an Executive Summary that includes recommendations regarding:
 - (a) Where appropriate, proposals to amend or improve existing CMMs;
 - (b) Identified obstacles to implementation including capacity building requirements;
 - (c) Provisions of CMMs and other Commission decisions that are a priority to be monitored and reviewed; and
 - (d) Other responsive action which may be considered by the Commission, as appropriate.
14. The Provisional Compliance Report shall be forwarded to the Commission for consideration at the annual meeting.

VI. Final Compliance Report

15. The Commission shall consider the Provisional Compliance Report provided by the CTC, and adopt a Final Compliance Report at its annual meeting, which shall include:
 - (a) A compliance status for each Member and CNCP with respect to the implementation of their obligations under the Convention and CMMs, and recommendations for any corrective action needed, based on compliance issues identified with respect to that Member or CNCP;
 - (b) Suggestions for possible amendments or improvements to existing CMMs to address implementation or compliance difficulties experienced by Members and CNCPs;
 - (c) Obstacles to implementation identified by Members and CNCPs including capacity building requirements;
 - (d) Additional obligations that should be reviewed under the CMS;
 - (e) Any other action the Commission shall deem appropriate to address non-compliance noted in the Final Compliance Report or to promote compliance with the Convention, CMMs and other obligations reviewed in the CMS.
16. The final Compliance Report shall also contain an executive summary setting out any recommendations or observations from the Commission regarding the issues listed in paragraph 15 of this measure.

VII. Other rules

17. All the relevant information arising from the SPRFMO CMS procedure shall be subjected to the relevant applicable SPRFMO rules and procedures regarding the use of information and transparency. Therefore, the Draft and Provisional Compliance Reports shall not constitute public domain data, but the Final Compliance Report and the executive summary shall be public domain data.
18. The Commission shall take a graduated response to non-compliance, taking into account the type, severity, degree and cause of the non-compliance in question. The Commission should develop, as a matter of priority, a process to complement the CMS that identifies a range of specific responses to non-compliance events that may be applied by the Commission through the implementation of the CMS. This shall include penalties and any other actions as may be necessary to promote compliance with the Convention, CMMs and other obligations included in the CMS.
19. This CMM shall be reviewed at the regular meeting of the Commission in 2018.

NOTE by Secretariat: The annexes remained unchanged and therefore are not reproduced here (refer to CMM 10-2017):

Annex I. Status of Compliance

Annex II. Template for the Implementation Report of the SPRFMO CMMs

Annex III. Draft Compliance Report

COMM 5 - Report - ANNEX 9a

Terms of Reference for the South Pacific Regional Fisheries Management Organization Working Group on VMS

(COMM5-WP07)

Background

The Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the Convention) was adopted on 14 Nov 2009 and entered into force on 24 August 2012. The objective of the Convention is the long term conservation and sustainable use of fishery resources in the South Pacific Ocean and the protection of the marine ecosystems in which the resources exist.

At SPRFMO2, recalling the relevant provisions of the Convention, in particular Articles 25(1)(c) and 27(1)(a), the Commission adopted CMM2.06 on the Establishment of the Vessel Monitoring System in the SPRFMO Convention Area. CMM2.06 sets out a framework for establishing an SPRFMO Commission Vessel Monitoring System (or VMS). Paragraph 3 of CMM2.06 provides that the purpose of the SPRFMO VMS should be to cost effectively continuously monitor the movements of fishing vessels authorized by flag States to fish in the SPRFMO Convention Area in order, inter alia, to support the implementation of SPRFMO CMMs.

Paragraph 9 of CMM2.06 provides that particular considerations shall be taken into account when developing rules and procedures for the operation of the VMS, including the draft Minimum Standards for Automatic Location Communicators (ALCs) used in the Commission VMS (as set out in Annex I) and:

a. vessel reporting, including the specifications of the data required, its format and reporting frequencies; b. Automatic Location Communicators (ALCs) minimum standards, including automation standards and the specifications of the ALCs; c. rules on polling; d. ALC failure alternates; e. cost recovery; f. cost sharing; and g. measures to prevent tampering. h. obligations and roles of fishing vessels, Members, CNCPs and the Secretariat, and i. use and release of data for purposes within the scope of the Convention.

Establishment and functions of the CTC Working Group on VMS

At SPRFMO2, the Compliance and Technical Committee (CTC) recommended to the Commission that an intersessional working group be created to develop rules and procedures for the operation of the SPRFMO VMS, in accordance with the considerations outlined at paragraph 9 of CMM 2.06. The CTC1 report was adopted by the Commission but this work has not yet commenced. The Commission agrees that the responsibilities of the VMS Working Group (VMS-WG) will be expanded to those set out below.

The VMS -WG will be chaired by the Chair of the Compliance and Technical Committee and coordinated by the SPRFMO Secretariat. The VMS-WG is open to all interested Members and CNCPs who may nominate one or more suitably qualified representatives for the VMS-WG. Interested Members and CNCPs will need to ensure that the VMS-WG has sufficient technical expertise as well as expertise in project and contract management. If agreed by the VMS-WG, the Group may also invite experts including from other intergovernmental organisations who are working on VMS matters, such as the Commission for the Conservation of Antarctic Marine Living Resources, and relevant RFMOs. The VMS-WG will undertake its work electronically

Responsibilities

1. The VMS -WG will identify the specific requirements of the SPRFMO VMS that will give effect to the objectives and considerations outlined in the Convention, and paragraph 3 of CMM 2.06.
2. The VMS-WG will continue work on the outstanding issues on the basis of the text at Annex 9(b) of the SPRFMO 5 Meeting Report.

3. The VMS-WG will develop the rules and procedures for the SPRFMO VMS according to paragraph 9 of CMM2.06. This work is to be undertaken in the intersessional period between SPRFMO-5 and SPRFMO-6.
4. The VMS-WG will consider the obligations relating to VMS in CMM 4.02 to ensure their compatibility with CMM 2.06.
5. These Terms of Reference will be reviewed at SPRFMO-6 to ensure their ongoing suitability.

COMM 5 - Report - ANNEX 9b

CMM 2.06 Conservation and Management Measure for the Establishment of the Vessel Monitoring System in the SPRFMO Convention Area

(COMM5-Prop03-rev7 [with bracketed text])

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING the relevant provisions of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, in particular Articles 25 (1)(c) and 27 (1)(a);

[REITERATED the integrity of the provisions of the Article 27, the VMS data may be used to further facilitate the Contracting Parties to implement the Article 27 (1)(b), Article 27 (3) as well as the CMM 3.04]

NOTING the importance of the vessel monitoring system as a tool to effectively support the principles and measures for the conservation and management of fisheries resources within the Convention Area;

MINDFUL of the rights and obligations of Commission Members and Cooperating Non-Contracting Parties (CNCPS) in promoting the effective implementation of Conservation and Management Measures (CMMs) adopted by the Commission;

FURTHER MINDFUL of the key principles upon which the vessel monitoring system is based, including the confidentiality and security of information handled by the system, and its efficiency, cost-effectiveness and flexibility;

ADOPTS the following CMM to provide for the implementation of the SPRFMO Vessel Monitoring System:

A COMMISSION VESSEL MONITORING SYSTEM

The Commission Vessel Monitoring System (Commission VMS) shall be activated on the date agreed in the contract between SPRFMO and its chosen provider.

The Commission VMS shall cover the area as defined in Article 5 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean and have a buffer zone of 100 nautical miles outside the Convention Area.

DEFINITIONS

1. For the purposes of interpreting and implementing these procedures, the following definitions shall apply:
 - (a) “Convention” means the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean;
 - (b) “Convention Area” means the Area to which this Convention applies in accordance with Article 5 of the Convention;
 - (c) “Commission” means the Commission of the South Pacific Regional Fisheries Management Organisation established by Article 6 of the Convention;
 - (d) “Automatic Satellite Position Device/Automatic Location Communicator” (ALC) means a near real-time satellite position fixing transceiver;
 - (e) Commission VMS“ means the SPRFMO Vessel Monitoring System that is established under this CMM;
 - (f) “Member/CNCP VMS” means the domestic Vessel Monitoring Systems that each Member and CNCP are obliged to develop in accordance with this CMM;
 - (g) “Fisheries Monitoring Centre” (FMC) means the government authority or agency responsible for managing VMS for its flagged fishing vessels.

PURPOSE

2. The purpose of the Commission VMS is to continuously monitor the movements and activity of fishing vessels that are on the Commission Record of Vessels and are authorised by flag States to fish for fisheries resources in the SPRFMO Convention Area in a cost-effective manner in order to, *inter alia*, support the implementation of SPRFMO CMMs.

APPLICABILITY

3. The Commission VMS shall apply to all fishing vessels as defined in Article 1 (1)(h) of the Convention. The system shall operate on a permanent basis or until decided otherwise by the Commission.
4. Any Member or CNCP may request, for the Commission's consideration and approval that waters under its national jurisdiction be included within the area covered by the Commission VMS. Necessary expenses incurred in the inclusion of such area into the Commission VMS shall be borne by the Member or CNCP that made the request.

NATURE AND SPECIFICATION OF THE COMMISSION VMS

5. The Commission VMS shall be administered by the SPRFMO Secretariat under the guidance of the Commission.
6. Data collected by the Commission VMS shall be securely stored by the Secretariat for at least three years and for a period to be determined by the Commission, and shall be used by the Members and CNCPs to achieve compliance with CMMs. VMS data may also be used by the Scientific Committee for analysis to support specific scientific advice requested by the Commission for sound fisheries management decision-making in the Convention Area.
7. Without prejudice to the principle of flag State responsibility, each Member and CNCP shall require vessels flying its flag to report VMS data automatically either:
 - (a) to the Secretariat via their flag State's FMC; or
 - (b) simultaneously to both the Secretariat and its FMC.
8. Each Member and CNCP shall notify the Executive Secretary of its chosen means of reporting (option (a) or (b) under paragraph 9) before the Commission VMS is activated.
9. The Commission shall develop rules and procedures for the operation of the Commission VMS taking into account the provisions of Annex 1, including, *inter alia*:
 - (a) measures to prevent tampering; and
 - (b) use and release of data for purposes within scope of the Convention.
10. Security standards of the SPRFMO Commission VMS data shall be developed by the Commission, consistent with confidentiality provisions of the Data Standards CMM 4.02 (Data Standards; 2017).
11. All Member and CNCP fishing vessels required to report to the SPRFMO Commission VMS shall use a functioning ALC that complies with the Commission's minimum standards for ALCs in Annex 1.
12. The Commission shall, as soon as practicable, agree on the roles and responsibilities of fishing vessels, Members, CNCPs and the Commission Secretariat for the operation of the Commission VMS.

All Members, CNCPs and the Secretariat shall manage VMS data in accordance with the Security and Confidentiality Requirements in Annex 2.14 bis. The Commission shall review the requirements for accessing VMS data for inclusion in this CMM at its annual meeting in 2018.

PROCEDURE IN CASE OF MANUAL REPORTING

13. In the event of failure of automatic reporting, the procedure outlined in Annex 3 of this measure shall apply.

REVIEW

14. At each annual meeting, the Secretariat shall provide the Commission with a report on the implementation and operation of the Commission VMS.
15. The Commission shall conduct a review of the implementation of the Commission VMS at its annual meeting in 2019 and shall consider its efficiency and effectiveness and consider further improvements to the system as required.

Annex 1

Minimum Standards for Automatic Location Communicators (ALCs) used in the Commission Vessel Monitoring System

1. The ALC shall automatically and independently of any intervention on the vessel communicate the following data:
 - (a) ALC static unique identifier;
 - (b) the current geographical position (latitude and longitude) of the vessel;
 - (c) the date and time (expressed in Coordinated Universal Time [UTC]) corresponding to the position of the vessel in paragraph 1 b);
2. The data referred to in paragraphs 1 b), c) and d) shall be obtained from a satellite-based positioning system.
3. ALCs fitted to fishing vessels must be capable of transmitting data at least every 15 minutes.
4. The data referred to in paragraph 1 shall be received by the Commission within an interval determined by the Commission.
5. ALCs fitted to fishing vessels must be protected so as to preserve the security and integrity of data referred to in paragraph 1.
6. Storage of information within the ALC must be safe, secure and integrated under normal operating conditions.
7. The flag State shall ensure that its FMC receives VMS positions at least with the frequency adopted according to this CMM and shall be able to request the VMS information at a higher frequency.
8. It shall be prohibited to destroy, damage, render inoperative or otherwise interfere with the ALC unless the competent authorities of the Flag State have authorised its repair or replacement.
9. Any features built into the ALC or terminal software to assist with servicing shall not allow unauthorised access to any areas of the ALC that could potentially compromise the operation of the VMS.
10. All ALCs shall be installed on vessels in accordance with their manufacturer's specifications and applicable standards.
11. Under normal satellite navigation operating conditions, positions derived from the data forwarded must be accurate to within 100 square metres.
12. The ALC and/or forwarding service provider must be able to support the ability for data to be sent to multiple independent destinations.
13. The satellite navigation decoder and transmitter shall be fully integrated and housed in the same tamper-proof physical enclosure.

Annex 2**Security and Confidentiality Requirements**

1. The provisions set out below shall apply to all VMS data received pursuant to CMM 2.06.
2. VMS data from vessels operating within the SPRFMO Convention Area shall be treated as confidential information.
3. All Members, CNCPs and the Secretariat¹ shall ensure the secure treatment of VMS data in their respective electronic data processing facilities, in particular where the processing involves transmission over a network. All Members, CNCPs and the Secretariat shall implement appropriate technical and organisational measures to protect reports and messages against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, and against all inappropriate forms of processing.
4. The Secretariat shall take all the necessary steps to ensure that the requirements pertaining to the deletion of VMS data handled by the Secretariat are complied with.
5. Each Member and CNCP shall designate a Point of Contact for the purposes of any communication regarding the VMS system (VMS Point of Contact). It shall transmit the name of the individual or office holder, email and any other contact information for its Points of Contact to the SPRFMO Executive Secretary no later than 180 days after the conclusion of the annual Commission meeting in 2017. Any subsequent changes to the contact information shall be notified to the SPRFMO Executive Secretary within 21 days after such changes take effect. The SPRFMO Executive Secretary shall promptly notify Members and CNCPs of any such changes.
6. The SPRFMO Executive Secretary shall establish and maintain a register of Points of Contact based on the information submitted by the Members and CNCPs. The register and any subsequent changes shall be published promptly on the Members only area of the SPRFMO website.
7. The Secretariat shall inform all Members and CNCPs of the measures taken by the Secretariat to comply with these security and confidentiality requirement provisions at the annual meeting following the establishment of the Commission VMS. Such measures shall ensure a level of security appropriate to the risks represented by the processing of VMS data.
8. All requests for VMS data must be made to the Secretariat by electronic means. Requests for VMS data must be made by a VMS Point of Contact, or an alternative contact nominated by the VMS Point of Contact. The Secretariat shall only provide VMS data to a requesting Member or CNCP where the VMS data relates to vessels flagged to other Members or CNCPs and all relevant Members and CNCPs have provided written consent through their VMS Point of Contacts for the data to be shared. The Secretariat shall only provide VMS data where it will be downloaded from a secure server by the relevant VMS Point of Contact.
9. [Upon request of a Contracting Party, the Secretariat shall only provide VMS data without the permission of the flag State for the purposes of:
 - a. planning for active surveillance operations and/or inspections at sea; or
 - b. active surveillance operations and/or inspections at sea
 - c. to be undertaken by Contracting Parties in the Convention Area on each others' vessels in accordance with Article 27(1)(b), Article 27 (3) and in accordance with CMM 3.04.]
10. [For the purpose of implementing paragraph 9:
 - a. each Contracting Party shall only make available such VMS data to their authorised inspectors, and any other government officials for whom it is deemed necessary to access the data;
 - b. VMS data shall be transmitted by the VMS Point of Contact of the Contracting Party to the inspectors and government officials referred to in paragraph 10(a) no more than 48 hours

¹ And the Commission's VMS vendor

prior to the commencement of any active surveillance operations and/or inspection activities.

- c. Contracting Parties shall ensure that such inspectors and government officials keep the data confidential and only use the data for the purposes described in paragraph 9. The Contracting Party that requested the data shall inform the Secretariat if that data was used no later than 15 days after the inspection procedure.
 - d. Contracting Parties may retain VMS data provided by the Secretariat for the purposes described in paragraph 9 until 24 hours after the vessels to which the VMS data pertain have departed from the SPRFMO Convention Area.]
11. [Contacting Parties requesting VMS data for the purposes of paragraph 9(a) shall provide the geographic area of the planned surveillance and/or inspection activity. In this case, the Secretariat shall provide the most recent available VMS data for the identified geographic area at a specified point in time no more than 48 hours prior to the planned commencement of each surveillance and/or inspection activity. In the event the planned surveillance/inspection activity does not proceed, the data provided shall be destroyed, and confirmation of the data destruction shall be provided in writing to the Secretariat, without delay. Regardless of whether the planned surveillance and/or inspection activity was conducted or not, the Secretariat shall notify the flag State(s) that the VMS data were provided no later than seven working days after the VMS data provision and, if applicable, that they have received confirmation that the data have been destroyed.]
 12. [For the purposes of paragraph 9(b), the Secretariat shall provide VMS data from the previous ten days, for vessel detected during surveillance, and/or inspection activity, and VMS data for all vessels within 100nm of the surveillance and/or inspection activity location. The Contacting Party/ies conducting the active surveillance and/or inspection activity shall provide the flag State(s) concerned with a report including the name of the vessel or aircraft on active surveillance and/or inspection activity and the full name(s) of the inspectors and their designated authority. This information shall be made available without undue delay after the surveillance and/or inspection activities are complete.]
 13. [Paragraphs 9 to 12 shall be reviewed by the Commission when the Commission adopts a specific SPRFMO high seas inspection regime.]
 14. [Upon the request of a Member or CNCP, the Secretariat shall also provide VMS data without the permission of the flag State for the purposes of:
 - a. supporting search and rescue activities undertaken by a competent Maritime Rescue Coordination Centre (MRCC) subject to the terms of an arrangement between the Secretariat and the competent MRCC. The Member or CNCP requesting the information shall ensure that the data will only be used only for the purposes described in this paragraph;
 - b. [maintaining situational awareness of high seas areas adjacent to and not more than 100 nautical miles from their exclusive economic zones (EEZs);] and
 - c. [maintaining situational awareness in waters under a Member or CNCP's national jurisdiction.]
 15. The Commission VMS shall have the following security features as a minimum:
 - a. The system shall be able to withstand a break-in attempt from unauthorised persons.
 - b. The system shall be capable of limiting the access of authorised persons to a predefined set of data only.
 - c. The system shall be capable of ensuring that VMS data are securely communicated and that all VMS data that enter the system are securely stored for the required time and that they will not be tampered with.
 16. Security procedures shall be designed addressing access to the system (both hardware and software).

17. The following features are the mandatory requirements for the Secretariat's staff use of the Commission VMS:
 - a. Each user shall be assigned a unique user identification and associated password. Each time the user logs on to the system he/she has to provide the correct password. Even when successfully logged on, the user only has access to those and only those functions and data that he/she is configured to have access to.
 - b. System security issues/events must be auditable by a third party at any time at the request of the Commission.

The Executive Secretary shall develop a process for authorising users who are not Secretariat staff, to be reviewed by the Commission at its 2018 meeting.

18. Submission of VMS data for the purpose of CMM 2.06 shall use cryptographic protocols to ensure secure communications.
19. The Secretariat shall nominate a Security System Administrator. The Security System Administrator shall review the log files generated by the software, properly maintain the system security, and restrict access to the system as deemed necessary. The Security System Administrator shall also act as a liaison between the VMS Point of Contact and the Secretariat in order to resolve security matters.

Annex 3**SPRFMO Rules on the manual reporting in the SPRFMO Convention Area.**

1. In the event of non-reception of four consecutive, programmed VMS positions, and where the Secretariat has exhausted all reasonable steps² to re-establish normal automatic reception of VMS positions, the Secretariat shall notify the Member or CNCP whose flag the vessel is flying. That Member or CNCP shall then direct the vessel Master to begin manual reporting.
2. The manual report shall either be sent by the vessel to the Secretariat via their Fisheries Monitoring Centre (FMC) or directly to the Secretariat.
3. Following the receipt of a direction from a Member or CNCP in accordance with paragraph 1, the vessel Master shall ensure the vessel manually reports its position every 4 hours. If automatic reporting to the SPRFMO VMS has not been re-established within 60 days of the commencement of manual reporting that Member or CNCP shall order the vessel to cease fishing, stow all fishing gear and return immediately to port in order to undertake repairs.
4. The vessel may recommence fishing in the SPRFMO Convention Area only when the ALC has been confirmed as operational by the Secretariat. Four consecutive, programmed VMS positions must have been received by the Secretariat to confirm that the ALC/MTU is fully operational.
5. The format for manual reports to be used is as below. Vessels are encouraged to use email as the primary means of communication and shall send these messages to secretariat@sprfmo.int.
6. The standard format for manual position reporting in the event of ALC malfunction or failure shall be as follows:
 - a. IMO number (if applicable)
 - b. International Radio Call Sign
 - c. Vessel Name
 - d. Vessel Master's name
 - e. Position Date (UTC)
 - f. Position Time (UTC)
 - g. Latitude (decimal degrees, to the nearest 0.01 degrees)
 - h. Longitude (decimal degrees, to the nearest 0.01 degrees)
 - i. Activity (Fishing/Transit/Transshipping)
7. Members are also encouraged to carry more than one ALC when operating in the SPRFMO Convention Area in order to avoid the need to manually report if the primary ALC fails.
8. The Secretariat shall publicise vessels that are reporting in accordance with this Annex in the SPRFMO Website.

² The Member or CNCP, in coordination with the Secretariat and through communication with the vessel master as appropriate, will endeavour to re-establish normal automatic reception of VMS positions. If such efforts reveal that the vessel is successfully reporting to the Member or CNCP's VMS (indicating that the vessel's ALC hardware is functional), the Secretariat, in coordination with the Member or CNCP will take additional steps to re-establish automatic reporting to the Commission VMS.

COMM 5 - Report - ANNEX 10.

Annual Report of the Commission

(COMM5-Doc04)

Paragraph 1 of Article 29 of the Convention provides that the “*Commission shall publish an annual report, which shall include details of decisions taken by the Commission to achieve the objective of this Convention. The report shall also provide information on actions taken by the Commission in response to any recommendations from the General Assembly of the United Nations or the FAO.*”

MEMBERSHIP

In December 2016 the Commission had fourteen members: Australia, Republic of Chile, People's Republic of China, Cook Islands, Republic of Cuba, Republic of Ecuador, European Union, Kingdom of Denmark in respect of the Faroe Islands, Republic of Korea, New Zealand, Republic of Peru, Russian Federation, Chinese Taipei, and the Republic of Vanuatu.

In December 2016 four countries had the status of Cooperating Non-Contracting Parties (CNCs): Republic of Colombia, Republic of Liberia, Republic of Panama and the United States of America.

DECISIONS TAKEN BY THE COMMISSION IN 2016

The fourth Commission Meeting was held in Valdivia, Chile, from 25 to 29 January 2016.

The Commission adopted the following three new Conservation and Management Measures (CMMs):

CMM 4.13. Management of New and Exploratory Fisheries in the SPRFMO Convention Area

CMM 4.14. Exploratory Fishing for Toothfish in the SPRFMO Convention Area

CMM 4.15. Vessels without Nationality in the SPRFMO Convention Area

The Commission adopted the following seven amended CMMs:

CMM 4.01 (revision of CMM 3.01). *Trachurus murphyi*. The revision sets the total allowable catch for 2016 at 410 000 t in accordance with the scientific advice.

CMM 4.02 (revision of CMM 3.02). Standards for the collection, reporting, verification and exchange of data. The revision relates to the inclusion of standards for observer data collected during a landing or while a vessel is in port (including a new Annex 7.O).

CMM 4.03 (revision of CMM 2.03) Management of Bottom Fishing in the SPRFMO Convention Area). The revision relates to the extension of application of the CMM until the close of the annual Commission Meeting in 2017.

CMM 4.04 (revision of CMM 1.04). Establishing a List of Vessels Presumed to Have Carried Out Illegal, Unreported, And Unregulated Fishing Activities in the SPRFMO Convention Area. The revised CMM includes a new paragraph 21 titled “*Information indicating a change of circumstances of vessels appearing on the current IUU List*”.

CMM 4.05 (revision of CMM 2.05). Establishment of Commission Record of Vessels Authorised to Fish in the Convention Area. The revision relates to the inclusion of an additional field in the vessel database indicating the original date of the authorisation given by the flag State (“Flag Authorisation Start”) and re-labelling of the current “Authorisation Start Date” to “Date of Inclusion into the SPRFMO Record”.

CMM 4.09 (revision of CMM 2.04). Minimising bycatch of seabirds in the SPRFMO Convention Area. The revision related to Annex 1, paragraph 1(b) and Annex 2, paragraph 2. In both cases the words “for 5 or more years” are replaced with the words “for the previous 5 consecutive years”.

CMM 4.10 (revision of CMM 3.03). Establishment of a Compliance and Monitoring Scheme in the SPRFMO Convention Area. The revision relates to a number of technical editorial changes to Annex II (Template for the Implementation Report of the SPRFMO Conservation and Management Measures).

In addition, the Commission made the following decisions:

SPRFMO IUU List: At its fourth meeting the Commission decided to add one vessel to the SPRFMO IUU list; the two vessels already listed previously were not removed. Other RFMOs were notified of the SPRFMO IUU List after the meeting.

SPRFMO Compliance Report: The Commission adopted the first SPRFMO Compliance Report which included the request for submission of “compliance action plans” by some Members and CNCPs to address identified compliance issues.

Progress was made with regard to a **SPRFMO VMS**, and the Commission decided to publish a Call for Proposals for a VMS service provider and adopted a tender evaluation process.

The Commission also amended its **Decision 1.02** on Rules for Cooperating non-Contracting Parties, to include in their application for CNCP status “a statement on how any compliance issues previously identified by the Commission have been addressed” (new paragraph 3[e]).

The report of the Commission and all related documents are available on the SPRFMO website at www.sprfmo.int.

ACTIONS TAKEN BY THE COMMISSION IN RESPONSE TO RECOMMENDATIONS FROM THE UNGA OR THE FAO

The SPRFMO Convention and the decisions and CMMs adopted by the Commission include numerous references to United Nations General Assembly (UNGA) and FAO agreements, resolutions and recommendations which have been reported in previous years.

The newly adopted 2016 measures refer to the following recommendations of the UNGA and FAO:

CMM 4.13 refers to:

- UNGA Resolution 61/105 which calls upon regional fisheries management organisations (RFMOs) to assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed;
- UNGA Resolution 64/72 which calls upon RFMOs to establish and implement appropriate protocols for the implementation of UNGA Resolution 61/105, including definitions of what constitutes evidence of an encounter with a VME, in particular threshold levels and indicator species; and to implement the FAO Guidelines for the Management of Deep-sea Fisheries in the High Seas (FAO, 2009; FAO Deep-sea Fisheries Guidelines) in order to sustainably manage fish stocks and protect vulnerable marine ecosystems (VMEs).

CMM 4.15 refers to the FAO International Plan of Action to prevent, deter and illuminate illegal, unreported and unregulated fishing (IUU fishing).

COMM 5 - Report - ANNEX 11

Statements

The following statements and interventions were made available for the report:

- a. Welcome Address of Senator Anne Ruston, Assistant Minister for Agriculture and Water Resources
- b. Opening Speech by the Chairperson of the Commission, Mr. Gordon Neil
- c. Executive Secretary of SPRFMO
- d. Executive Secretary of CCAMLRL
- e. Executive Secretary of SIOFA
- f. WMO Representative
- g. Deep-Sea Conservation Coalition

COMM 5 - Report - ANNEX 11a

Welcome Address by Senator Anne Ruston, Assistant Minister for Agriculture and Water Resources

Acknowledgements

Mr Raul Sunico, Undersecretary of Fisheries and Aquaculture, Chile

Mr Hector Soldi, Deputy Minister of Fisheries and Aquaculture, Peru

Mr Gordon Neil, Chairman, South Pacific Regional Fisheries Management Organisation

Thank you and good morning.

I am delighted to be here today to welcome you to our great city. There is no better time to visit Adelaide and if you are a cycling fan there is plenty of action on that front too.

It's great to have more than 150 delegates here and I am sure we will all benefit from the discussions in the coming days of this meeting. This conference is an opportunity for us to continue to build upon the development of effective international fisheries policy in the South Pacific. The Objective of the Convention speaks to the need to manage the fishery in a way that ensures the long term conservation and sustainable use of the fishery resources. As we have seen in the hard work and success towards recovering the Jack Mackerel stock, good fisheries management, based on solid scientific evidence, delivers results.

Balancing economic, environmental and social objectives is not easy but it is essential to achieving the best possible management of the shared fisheries resources in the region. Australia has traditionally had a key focus on the Pacific. Our fisheries policy, regional aid and development objectives are strongly interlinked.

Australia recognises the importance of engaging with regional fisheries management organisations adjacent to Australia's exclusive economic zone. We support the right of all states in having a voice and for fair consideration to be given to everyone's interests and concerns. In Australia, our domestic fisheries management practices are underpinned by the principles of economic development and environmental sustainability.

We are proud that the most recent fish status report noted that no solely Australian Government managed fishery is subject to overfishing. This is due in part to the strong fisheries management framework that Australia has in place, which we are continually seeking to improve. Our commitment to responsible fishing management is reflected in our participation in international forums, where we aim to achieve similar outcomes for those shared fishing resources. On that note, I would like to take this opportunity to commend the Commission for its efforts to date to rebuild the jack mackerel stock. The turn-around has been achieved in only a few short years. It's a perfect example of the effectiveness of this Commission and the importance of good science, a robust legal framework, collaboration and goodwill between member countries. I strongly encourage your continued commitment to improving the condition and sustainability of this stock.

It is vital that we also work to combat issues that threaten the achievements of the Commission. Illegal, unreported and unregulated fishing poses a key risk to undermine the hard work and objectives of this Commission and regional fisheries management organisations more broadly. Australia is committed to combatting illegal, unreported and unregulated fishing. This issue is now receiving increasing global attention and most importantly, action. Our experience shows that collaboration and sharing of information is the only pathway to success against IUU fishing. We have seen a significant reduction in this fishing activity in the Southern Ocean and other areas, where a concerted effort has been made to combat offending vessels. This fight will require ongoing vigilance and cooperation. Australia welcomed the entry into force of the FAO Port State Measures Agreement

in June 2016. Australia strongly encourages other states that are yet to join this Agreement to get on board, and thereby strengthen its effectiveness. The Pacific also saw the entry into force of the Niue (new ay) Treaty Subsidiary Agreement in July 2014. The Agreement enhances cooperative surveillance and enforcement activities in the Pacific and provides a more efficient framework to combat IUU fishing in the region. Australia signed the agreement in 2014 and we hope to finalise our accession to it in the coming months. We have also seen several regional fisheries management organisations - including this Commission - introduce new measures to take action against stateless vessels fishing on the high seas. Again, I commend the Commission for its leadership on this important issue.

Australia is interested in ways to incorporate new technology into fisheries management. In particular, new technology has the potential to significantly improve compliance and reporting outcomes. An example is the implementation of electronic monitoring systems that are used to verify catch and logbook data. Australia has been implementing this technology domestically. We would like to see its uptake internationally as a cost-effective data collection tool that can improve accuracy and reliability of fisheries data. Depending on the data needs in a fishery, electronic monitoring can replace the need for human observers on board vessels. Last year, the UN General Assembly recognised the advantages that new technology can offer by encouraging their uptake, including electronic monitoring. I am pleased to see that electronic monitoring is on the SPRFMO Scientific Committee work plan. I trust that this Commission gives full consideration to the merits of introducing such innovative technology to the SPRFMO Convention Area.

In closing, I again commend the Commission for its work and success to date, towards the recovery of the Jack Mackerel stock. That is an achievement of which we should all be proud. I wish you all the best for a productive meeting and trust that your discussions will lead to improved outcomes for the management of the South Pacific Regional fishery resources. I know that you will enjoy your stay in the beautiful city of Adelaide.

I look forward to joining you tomorrow evening at the Reception that Australia is hosting at our stunning Adelaide Oval.

Thank you.

COMM 5 - Report - ANNEX 11b

Opening Speech by the Chairperson of the Commission, Mr Gordon Neil

Delegates and observers, ladies and gentlemen, I am honoured to welcome you to the city of Adelaide for the fifth meeting of the Commission of the South Pacific Regional Fisheries Management Organisation.

Firstly, I would like to acknowledge that 2016 has been a significant year for Oceans and the Law of the Sea in the context of the United Nations.

- The United Nations held a successful review conference for the UN Fish Stocks Agreement which reaffirmed many important elements of relevance to this Organisation, including its emphasis on applying the precautionary approach and ecosystem approach to fisheries management, and a strong focus on combatting IUU fishing.
 - It was particularly encouraging to note that the Report of the Resumed Review Conference cited SPRFMO's decision making procedures as an example of good practice¹.
 - The voting and objection procedures set out in our Convention are strong and innovative provisions that provide a mechanism for this Organisation to effectively exercise its duty to cooperate to conserve and manage the fishery resources within its competence.
 - I note this practice was encouraged in the official Outcomes of the Review Conference.² This is a positive signal for fisheries more generally and reaffirms my view that our Convention is one that represents a contemporary, best-practice approach.
- We have also seen renewed attention on the UN resolutions relating to bottom fishing and the actions that States and RFMOs have taken to implement those important Resolutions. SPRFMO, I think, is making good progress in this regard but of course we have more work to do.
- We have also seen work commence for a new implementing agreement under UNCLOS.

In preparing this opening address, I have reflected on my time with this Commission – both in the privileged role as your Chairperson for the last two years, and in my capacity as a delegate for Australia in the years prior. I am impressed by the progress this Commission has made in just 5 short years. We have, together, developed a suite of conservation and management measures that enable our Organisation to function as a cost-efficient and effective RFMO. We have a strong foundation upon which we can continue to grow. I note that our Convention requires us to commence a performance review this year and it is clear that SPRFMO will have a positive story to tell.

Our Organisation plays a key role in a global effort to cooperate to conserve and manage fish stocks and the marine ecosystems in which they exist. The action that we take, together, demonstrates our commitment to this important objective to the international community. The progress we have made

¹ See paragraph 110 of the Report of the Resumed Review Conference which reads as follows: *Several delegations noted recent improvements, especially within newly established RFMO/As, in decision-making rules and procedures, while highlighting the need for continuous adaptation. They stressed that although the adoption of conservation and management measures by consensus was a desirable practice, it sometimes led, when it was the only rule, to blockage of measures or adoption of weak measures. They therefore suggested that decision-making rules should allow for voting when necessary, and highlighted the practice of the South Pacific Regional Fisheries Management Organization in that regard.*

² See paragraph 5(d) of the Outcomes of the Review Conference (a sub-section of the report) which reads as follows: *Encourage RFMO/As to review their decision-making procedures, noting the need for procedures that facilitate the adoption of conservation and management measures in a timely and effective manner and, in particular, to consider provisions for voting and objection procedures.*

in rebuilding the jack mackerel stock is an excellent example of SPRFMO's commitment to discharging its duty to conserve and manage the fishery resources under its competence. The most recent advice from our scientific committee is positive. When we consider that at the time our Convention entered into force in 2012, spawning stock biomass was an estimated 5% of unfished biomass, we have come a long way. I commend all Members for their continued investment in the work of our scientific committee in this regard.

This is an encouraging sign. It shows the international community that SPRFMO is an Organisation that values its scientific advice. And, more importantly, it demonstrates that this is an Organisation that acts on the advice of its scientists. This is critical to our Organisation's success.

As in previous years, we will have an important discussion this week on the allocation of the jack mackerel total allowable catch. It is well understood that this is a sensitive and challenging issue for many Members and CNCPs in SPRFMO. I am optimistic that we can, as we have done before, take full account of our Scientific Committee's advice and maintain clear sight of our objective in the course of our negotiations, which is to rebuild the jack mackerel stock to within sustainable limits to ensure it is available to us for many generations to come.

We cannot forget our bottom fisheries, which will always receive global attention. SPRFMO, like other RFMOs with competence over deepsea fisheries, can play a role in demonstrating that bottom fishing can be managed for the sustainability of target species and deep water ecosystems.

I am mindful that we have a busy agenda ahead of us. As is our usual practice, we must examine the list of vessels that are presumed to have engaged in IUU fishing in the South Pacific Ocean, as well as consider any modifications to the 2016 IUU list. I believe SPRFMO has a strong record in its efforts to combat IUU fishing. We have very clear rules about what constitutes IUU fishing. Any vessel fishing in contravention of those rules—regardless of its flag State, size or purpose—should be aware that inclusion on the SPRFMO IUU list is a very real consequence and this Commission will not be lenient in listing such vessels.

Once again, I see that progressing establishment of the VMS is a priority for the Commission this year. Our Commission made positive progress at our 2016 annual meeting and I am confident this trend will continue. I acknowledge the hard work of the VMS working group during the intersessional period, as well as that of the CTC during its meeting, to resolve complex and interrelated issues that are critical for the implementation of our system.

The Observer Program working group has also made significant progress which I commend – we recognised the importance of a developing a SPRFMO Observer Program during the negotiations on our Convention and I look forward to seeing this materialise.

I am pleased to see so many Members and CNCPs contributing intersessionally, and during meetings, to these important issues. Thank you to everyone involved for your efforts.

We will also review a number of measures at this meeting, including our Compliance Monitoring Scheme and the Minimum Standards of Inspection in Port. Regularly reviewing our measures and procedures, and committing to continuous improvement, is an important practice for any RFMO.

Finally, I would like to take the opportunity to thank you all personally for your support and advice during my term as Chairperson of the Commission. It has been a rewarding two years. It has been a wonderful opportunity to contribute to the work of this very important RFMO from its establishment.

I am confident the Commission can elect a new Chairperson from within its membership that can capably lead this Organisation into its next stage of development. The success we have experienced thus far is as much a reflection on the hard work and dedication of all delegations as it is on the strength of our Convention and our CMMs. I am proud to leave this office with SPRFMO in such a positive place.

On that note, I am pleased to declare the 5th meeting of the SPRFMO Commission open.

COMM 5 - Report - ANNEX 11c

Intervention by SPRFMO Executive Secretary, Dr Johanne Fischer

Thank you for giving me the floor. I would like to congratulate the Members on the excellent progress made again this month in addressing the objectives of this Convention and the important results in this regard achieved during this meeting.

It is good to be involved in an organisation as vibrant as this one, and it is a great pleasure to work with all of you, not just during the annual and scientific meetings but also throughout the year. I feel very much a part of these activities: As Executive Secretary I am responsible to ensure that every Member and CNCP receives all information it requires to implement the decisions and measures adopted by the Commission. To achieve this important goal, my colleagues and I at the Secretariat provide you with the necessary guidance. We read and reply to many thousands emails per year and talk things through over the phone if needed.

We also provide you with numerous reports which summarise and analyse the data you send to us. In addition, we produce information documents to assist you in your work, such as the development of a VMS and an Observer Programme, the review of the financial formula, the regular review of the organisation, our collaboration with other organisations and so on. Furthermore, the organisation is benefitting from the new GST status that I have been able to negotiate with New Zealand and which ensures that taxes paid on goods and services are returned to the Organisation.

As Executive Secretary, I am responsible for the wellbeing of staff members and to ensuring that the work conditions at the Secretariat are fair and equitable. The functioning of this organisation much depends on the essential work of me and my colleagues at the Secretariat, and the appropriate level of staffing in the Secretariat depends on you. I believe that the staff regulations adopted by you in 2016 provide a good foundation in this regard. For expatriate staff members, the Secretariat could find a recognised retirement fund in New Zealand, and we have also been lucky by joining the WCPFC group health insurance that will allow future international staff members to work for SPRFMO even if they or one of their family member is handicapped or ill.

Working in my position has its ups and downs but overall it brings me much satisfaction. Therefore, it is with great regret that I must inform you that at this time I cannot confirm my availability for a second term of my appointment. My contract ends in June 2018 and it is my intention to fulfil this term. So, during the coming months you can fully count on me to perform my duties with the same level of commitment as I have done until now.

I thank you all for very much for your support during these two years and I would also like to convey my deep appreciation to my colleagues at the Secretariat for their hard work, loyalty and dedication.

COMM 5 - Report - ANNEX 11d

Intervention by CCAMLR Executive Secretary, Dr Andrew Wright

Thank you Chair. At last year's meeting, CCAMLR Members accepted Australia's offer to observe your meeting here on behalf of CCAMLR members. Nevertheless, it has been useful taking advantage of the proximity of your meeting to our office in Hobart to sit in and observe the current issues for SPRFMO from a Secretariat perspective. Thank you Australia, and the SPRFMO Secretariat, for the efficient administrative arrangements and hospitality for this meeting.

SPRFMO and CCAMLR have had a formal relationship for several years now – initiated by CCAMLR Members in 2013. This relationship has perhaps not been quite so formal as might be provided for under a MoU; it was signed by the respective Chairs and the Arrangement has proven useful in terms of facilitating regular exchanges between both Secretariats and, as is evident this week, among your Members that are also Members of CCAMLR.

Of course, CCAMLR is extremely interested in compliance-related issues – particularly matters of non-compliance involving vessels that have a history in CCAMLR. Our procedures associated with Compliance Evaluation are not dissimilar as are our IUU discussions. It goes without saying that New Zealand's research fishing for toothfish in the SPRFMO Convention Area is a very encouraging initiative that offers significant opportunity for SPRFMO/CCAMLR collaboration particularly for our respective Scientific Committees.

Your discussions this week on VMS and the on-going work to develop an observer programme are also very relevant.

Another area of strong interest to CCAMLR is by-catch – particularly seabird mortality in fisheries north of the CCAMLR Convention Area. As you all probably know, CCAMLR has been very successful in reducing seabird mortality in CCAMLR fisheries to very low numbers in the past 5 years – approaching zero in some years. This is a very different story to the thousands of birds that were killed in fisheries operating in the CCAMLR Convention Area in the early 1990s.

However, the mitigation efforts of fishing vessels in the CCAMLR Convention Area is severely undermined if seabird populations that are now relatively protected in the CCAMLR Convention Area are exposed to elevated mortality levels in fisheries to the north of CCAMLR's Convention Area. Efforts in all multinational regional fisheries arrangements, and domestically within areas under national jurisdiction, within the range of these seabird populations is urgently needed to minimise mortality and complement the successes in CCAMLR. The information reporting and assimilation intent described in CMM 4.09, and the invitation to the SC to advise on possible improvements to mitigate seabird interactions, is encouraging – as is SPRFMO's on-going engagement with ACAP – an organisation with which CCAMLR also has a formal working arrangement. It is to be hoped a fully implemented observer scheme will help collect appropriate data that the SC can use to advise the Commission on options for strengthening mitigation efforts in all SPRFMO fisheries.

Finally, Chair, as SPRFMO Members who are also Members of CCAMLR are aware, CCAMLR will be undertaking a second performance review this year. It is possible that our experience with that, and its outcomes, may be informative for consideration of the first review of SPRFMO procedure that you will consider at next year's meeting.

Thank you Chair. We look forward to the continuing strengthening of relations between our two organisations for mutual benefit.

COMM 5 - Report - ANNEX 11e

Intervention by SIOFA Executive Secretary, Mr Jon Lansley

Dear Chairperson and distinguished delegates I would like to make a brief statement on behalf of the Southern Indian Ocean Fisheries Agreement (SIOFA) to express my pleasure at being able to attend this 5th Meeting of the Commission of the South Pacific Regional Fisheries Management Organisation.

My name is Jon Lansley and I have been awarded the honour of being appointed the first Executive Secretary for SIOFA and recently commenced this appointment in October 2016.

SIOFA is a new non-tuna RFMO and the Secretariat is based in La Réunion in the Southern Indian Ocean.

Attending this meeting is a great opportunity for me to learn more about the management of RFMO meetings from those who have more experience in this, and as this is my first SPRFMO meeting, to make many new useful contacts.

It is important that we ensure good cooperation and harmony amongst RFMO's, share good practice in the management of our organisations and in achieving our objectives.

SIOFA aims to model best practice of existing RFMO's and therefore I am very happy to be here to observe best practices of SPRFMO and receive advice and support as has been generously offered to me by SPRFMO secretariat staff and members.

It is an honour to be amongst you all and I look forward to building and maintaining good working relations between SPRFMO and SIOFA.

I would like to take this opportunity to announce that the SIOFA website is now live. If one searches for 'www.siofa.org' you should find it. Please view this website as a work in progress but it is a start and all basic documents can be found here. This website has been developed with the generous support of IT staff of the North East Atlantic Fisheries Commission (NEAFC).

I wish you a productive meeting and thank you very much.

COMM 5 - Report - ANNEX 11f

Proposal for WMO and RFMO Collaboration, Dr Karen Evans

REGIONAL FISHERY BODY SECRETARIATS' NETWORK

Sixth Meeting
Rome, 9 and 15 July 2016
PROPOSAL FOR WMO AND RFMO COLLABORATION

As a specialized agency of the United Nations, the World Meteorological Organization (WMO) is dedicated to international cooperation and coordination on the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources.

Over the past few years, there has been greater interaction of the WMO community with the fisheries communities of the world and increased discussion between WMO and FAO on fisheries issues. WMO has learned that Regional Fisheries Management Organizations (RFMOs) and other institutions collect marine meteorological and ocean observations by ships and anchored fish aggregating devices (FADs).

WMO Members, the National Meteorological and Hydrological Services of the world, work around the clock to provide vital weather and climate information worldwide. Their early and reliable warnings of severe weather and ocean conditions as well as of climate variability and change allow decision-makers, communities and individuals to be better prepared for weather and climate events. This includes such as events such as El Niño and La Niña and other ocean conditions that can greatly impact oceanic and inland fisheries.

In order to provide warnings over land and oceans, there is a need for the establishment and liaison of networks of observational sources to provide weather, climate and ocean related data. The National Meteorological and Hydrological Services maintain their own observational networks along with liaising with other national and regional partner institutions. The observations collected are also used to determine the status of the atmosphere and oceans with regards to climate change. The amount of direct surface and sub-surface ocean observations are very sparse and any increase in the number of observations will lead to increased accuracy of short-term weather forecasts (1-10 days) and long-term climate predictions (3-12 months) over the coastal and open oceans areas.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

RSN members are kindly requested to bring their copies to meetings. RSN related documents can be accessed at <http://www.fao.org/fishery/nems/40832/en>, in order to minimize environmental impact and promote greener communications.

COMM 5 - Report - ANNEX 11g

Intervention by Deep Sea Conservation Coalition, Mr Duncan Currie

Thank you Mr Chair and good afternoon delegates.

This intervention is given on behalf of the Deep Sea Conservation Coalition (DSCC), which represents over 70 NGOs. We firstly thank the Australian government and delegation for its hospitality and for keeping the weather cool.

We have made our briefing available on the website but would like to briefly outline some recommendations. They appear on pages 1 and 2 of our briefing.

First and foremost, we recall the UNGA bottom fishing review this year, and highlighted on page 4 of our briefing the recommendations. These are directed specifically at RFMOs and States engaging in bottom fishing.

Some of the specific calls were that: (para 180 of resolution 71/123)

- (a) to use the **full set of criteria** in the Guidelines to identify where VMES occur or are likely to occur as well as for assessing significant adverse impacts (SAIs);
- (b) to ensure that **impact assessments**, including for cumulative impacts, are:
 - conducted consistently with the Guidelines, particularly paragraph 47,
 - are **reviewed periodically and are revised**
 - carried out as a priority **before authorizing bottom fishing activities**;
- (c) To ensure that measures are based on and updated on the basis of the best available scientific information, noting in particular the need to improve **effective implementation of thresholds and move-on rules**".

Mr Chair, the NZ information paper recommended that the Commission:

- **Comment** on the merits of a prescriptive bottom fishing CMM versus a high-level bottom fishing CMM.

We note that the SC has already advised on that and on page 13:

- **agreed** that a more prescriptive bottom fishing CMM for all members may be easier to implement and control, more consistent, and more likely to work effectively, compared with a high-level CMM under which members can choose how to give effect to the CMM's requirements;

In response to Chile's intervention, the SC noted that a single, prescriptive measure may not be possible across both western and eastern parts of the SPRFMO Area given that Chile has a historical footprint as well as Australia, New Zealand and Korea.

We therefore recommend that the Commission directs the SC to develop a more prescriptive measure which implements the relevant UNGA resolutions and the FAO Deep Sea Guidelines.

Other recommendations are listed in our briefing and in brief are as follows:

1. CMM 4.03 should be amended and implemented consistent with the key provisions of UNGA resolutions, avoiding significant adverse impacts on VMEs as well as ensuring the sustainability of deep-sea stocks and non-target species¹.
2. On Vulnerable Marine Ecosystems (VMEs)² it is crucial that the measure be revised according to the UNGA resolutions and FAO DS Guidelines.
3. States that intend to continue bottom trawling should update their impact assessments as a matter of urgency by a specified date³.
4. Finally, the Commission should put into place a process to study ecologically or biologically sensitive areas (EBSAs) identified in the Commission area and to identify appropriate responses, including protected areas. This should include a specific request to the SC to assess the EBSAs in the Commission Area and make recommendations.

We welcome the EU's intervention calling for an inclusive process and look forward to stakeholders being included. In response to NZ's intervention, DSCC specifically requests to be involved in the working group, and welcome Australia's suggestion to hold a workshop in Australia. DSCC would be happy to contribute experts.

Mr Chairman, we look forward to a productive meeting. Thank you.

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- ¹ 1. On target species: The Commission should require the provision by all Members and CNCPs of a complete catch history for all stocks of all target species, with sufficient precision, as well as ask for the SC to advise and provide recommendations on reference points.
 2. On bycatch species: The Commission should instruct the SC to prioritize further research and advice on conservation measures for non-target species, and amend the list of "other species of concern" in Annex 14 of CMM 4.02, as proposed by the SC, to include deep-sea sharks. With respect to both target and bycatch species, the Commission should urgently ensure that conservation and management measures are established consistent with the precautionary approach, in particular with regard to vulnerable, threatened or endangered species, as called for in resolution 71/123
 - ² 1. The Commission should instruct SC-5 to:
 1. Modify the measure to specifically address the potential impacts of midwater trawling for benthic-pelagic species on VMEs;
 2. Redraw the bottom fishing footprint to correspond to areas where bottom fishing has actually occurred over the past several years;
 3. Initiate a program of marine scientific research according to resolution 71/123, including predictive modelling, non-impact methods of sea-based surveys and investigating and encouraging the use of cameras on towed nets;
 4. Initiate a program to map the distribution of VMEs within the footprint, using the full set of criteria in the FAO Guidelines to identify VMEs and where they occur or are likely to occur, as well as for assessing significant adverse impacts (SAIs) as called for in resolution 71/123;
 5. Assess cumulative impacts, including past impacts from bottom fishing and impacts from other sources than bottom fishing, such as from ocean acidification and climate change and take further measures to protect VMEs accordingly; and
 6. Design a SPRFMO-wide move-on rule in the SPRFMO area to be established and consistently applied to vessels from all flag States fishing in the region, apply to all areas where vessels are permitted to bottom fish, and require the immediate temporary closure of an area for all vessels where a VME encounter occurs pending an assessment by the SC that either VMEs do not occur in the area or SAIs will not occur as a result of reopening the area to one or more methods of bottom fishing. Consistent, science-based encounter protocols should be designed and implemented to ensure the effective implementation of thresholds and move-on rules.
 - ³ The Commission should require all countries carrying out bottom fishing to expeditiously update their impact assessments in line with the seven criteria outlined in paragraph 47 of the FAO Guidelines

COMM 5 - Report - ANNEX 11

Statements

The following statements and interventions were made available for the report:

- a. Welcome Address of Senator Anne Ruston, Assistant Minister for Agriculture and Water Resources
- b. Opening Speech by the Chairperson of the Commission, Mr. Gordon Neil
- c. Executive Secretary of SPRFMO
- d. Executive Secretary of CCAMLRL
- e. Executive Secretary of SIOFA
- f. WMO Representative
- g. Deep-Sea Conservation Coalition

COMM 5 - Report - ANNEX 11a

Welcome Address by Senator Anne Ruston, Assistant Minister for Agriculture and Water Resources

Acknowledgements

Mr Raul Sunico, Undersecretary of Fisheries and Aquaculture, Chile

Mr Hector Soldi, Deputy Minister of Fisheries and Aquaculture, Peru

Mr Gordon Neil, Chairman, South Pacific Regional Fisheries Management Organisation

Thank you and good morning.

I am delighted to be here today to welcome you to our great city. There is no better time to visit Adelaide and if you are a cycling fan there is plenty of action on that front too.

It's great to have more than 150 delegates here and I am sure we will all benefit from the discussions in the coming days of this meeting. This conference is an opportunity for us to continue to build upon the development of effective international fisheries policy in the South Pacific. The Objective of the Convention speaks to the need to manage the fishery in a way that ensures the long term conservation and sustainable use of the fishery resources. As we have seen in the hard work and success towards recovering the Jack Mackerel stock, good fisheries management, based on solid scientific evidence, delivers results.

Balancing economic, environmental and social objectives is not easy but it is essential to achieving the best possible management of the shared fisheries resources in the region. Australia has traditionally had a key focus on the Pacific. Our fisheries policy, regional aid and development objectives are strongly interlinked.

Australia recognises the importance of engaging with regional fisheries management organisations adjacent to Australia's exclusive economic zone. We support the right of all states in having a voice and for fair consideration to be given to everyone's interests and concerns. In Australia, our domestic fisheries management practices are underpinned by the principles of economic development and environmental sustainability.

We are proud that the most recent fish status report noted that no solely Australian Government managed fishery is subject to overfishing. This is due in part to the strong fisheries management framework that Australia has in place, which we are continually seeking to improve. Our commitment to responsible fishing management is reflected in our participation in international forums, where we aim to achieve similar outcomes for those shared fishing resources. On that note, I would like to take this opportunity to commend the Commission for its efforts to date to rebuild the jack mackerel stock. The turn-around has been achieved in only a few short years. It's a perfect example of the effectiveness of this Commission and the importance of good science, a robust legal framework, collaboration and goodwill between member countries. I strongly encourage your continued commitment to improving the condition and sustainability of this stock.

It is vital that we also work to combat issues that threaten the achievements of the Commission. Illegal, unreported and unregulated fishing poses a key risk to undermine the hard work and objectives of this Commission and regional fisheries management organisations more broadly. Australia is committed to combatting illegal, unreported and unregulated fishing. This issue is now receiving increasing global attention and most importantly, action. Our experience shows that collaboration and sharing of information is the only pathway to success against IUU fishing. We have seen a significant reduction in this fishing activity in the Southern Ocean and other areas, where a concerted effort has been made to combat offending vessels. This fight will require ongoing vigilance and cooperation. Australia welcomed the entry into force of the FAO Port State Measures Agreement

in June 2016. Australia strongly encourages other states that are yet to join this Agreement to get on board, and thereby strengthen its effectiveness. The Pacific also saw the entry into force of the Niue (new ay) Treaty Subsidiary Agreement in July 2014. The Agreement enhances cooperative surveillance and enforcement activities in the Pacific and provides a more efficient framework to combat IUU fishing in the region. Australia signed the agreement in 2014 and we hope to finalise our accession to it in the coming months. We have also seen several regional fisheries management organisations - including this Commission - introduce new measures to take action against stateless vessels fishing on the high seas. Again, I commend the Commission for its leadership on this important issue.

Australia is interested in ways to incorporate new technology into fisheries management. In particular, new technology has the potential to significantly improve compliance and reporting outcomes. An example is the implementation of electronic monitoring systems that are used to verify catch and logbook data. Australia has been implementing this technology domestically. We would like to see its uptake internationally as a cost-effective data collection tool that can improve accuracy and reliability of fisheries data. Depending on the data needs in a fishery, electronic monitoring can replace the need for human observers on board vessels. Last year, the UN General Assembly recognised the advantages that new technology can offer by encouraging their uptake, including electronic monitoring. I am pleased to see that electronic monitoring is on the SPRFMO Scientific Committee work plan. I trust that this Commission gives full consideration to the merits of introducing such innovative technology to the SPRFMO Convention Area.

In closing, I again commend the Commission for its work and success to date, towards the recovery of the Jack Mackerel stock. That is an achievement of which we should all be proud. I wish you all the best for a productive meeting and trust that your discussions will lead to improved outcomes for the management of the South Pacific Regional fishery resources. I know that you will enjoy your stay in the beautiful city of Adelaide.

I look forward to joining you tomorrow evening at the Reception that Australia is hosting at our stunning Adelaide Oval.

Thank you.

COMM 5 - Report - ANNEX 11b

Opening Speech by the Chairperson of the Commission, Mr Gordon Neil

Delegates and observers, ladies and gentlemen, I am honoured to welcome you to the city of Adelaide for the fifth meeting of the Commission of the South Pacific Regional Fisheries Management Organisation.

Firstly, I would like to acknowledge that 2016 has been a significant year for Oceans and the Law of the Sea in the context of the United Nations.

- The United Nations held a successful review conference for the UN Fish Stocks Agreement which reaffirmed many important elements of relevance to this Organisation, including its emphasis on applying the precautionary approach and ecosystem approach to fisheries management, and a strong focus on combatting IUU fishing.
 - It was particularly encouraging to note that the Report of the Resumed Review Conference cited SPRFMO's decision making procedures as an example of good practice¹.
 - The voting and objection procedures set out in our Convention are strong and innovative provisions that provide a mechanism for this Organisation to effectively exercise its duty to cooperate to conserve and manage the fishery resources within its competence.
 - I note this practice was encouraged in the official Outcomes of the Review Conference.² This is a positive signal for fisheries more generally and reaffirms my view that our Convention is one that represents a contemporary, best-practice approach.
- We have also seen renewed attention on the UN resolutions relating to bottom fishing and the actions that States and RFMOs have taken to implement those important Resolutions. SPRFMO, I think, is making good progress in this regard but of course we have more work to do.
- We have also seen work commence for a new implementing agreement under UNCLOS.

In preparing this opening address, I have reflected on my time with this Commission – both in the privileged role as your Chairperson for the last two years, and in my capacity as a delegate for Australia in the years prior. I am impressed by the progress this Commission has made in just 5 short years. We have, together, developed a suite of conservation and management measures that enable our Organisation to function as a cost-efficient and effective RFMO. We have a strong foundation upon which we can continue to grow. I note that our Convention requires us to commence a performance review this year and it is clear that SPRFMO will have a positive story to tell.

Our Organisation plays a key role in a global effort to cooperate to conserve and manage fish stocks and the marine ecosystems in which they exist. The action that we take, together, demonstrates our commitment to this important objective to the international community. The progress we have made

¹ See paragraph 110 of the Report of the Resumed Review Conference which reads as follows: *Several delegations noted recent improvements, especially within newly established RFMO/As, in decision-making rules and procedures, while highlighting the need for continuous adaptation. They stressed that although the adoption of conservation and management measures by consensus was a desirable practice, it sometimes led, when it was the only rule, to blockage of measures or adoption of weak measures. They therefore suggested that decision-making rules should allow for voting when necessary, and highlighted the practice of the South Pacific Regional Fisheries Management Organization in that regard.*

² See paragraph 5(d) of the Outcomes of the Review Conference (a sub-section of the report) which reads as follows: *Encourage RFMO/As to review their decision-making procedures, noting the need for procedures that facilitate the adoption of conservation and management measures in a timely and effective manner and, in particular, to consider provisions for voting and objection procedures.*

in rebuilding the jack mackerel stock is an excellent example of SPRFMO's commitment to discharging its duty to conserve and manage the fishery resources under its competence. The most recent advice from our scientific committee is positive. When we consider that at the time our Convention entered into force in 2012, spawning stock biomass was an estimated 5% of unfished biomass, we have come a long way. I commend all Members for their continued investment in the work of our scientific committee in this regard.

This is an encouraging sign. It shows the international community that SPRFMO is an Organisation that values its scientific advice. And, more importantly, it demonstrates that this is an Organisation that acts on the advice of its scientists. This is critical to our Organisation's success.

As in previous years, we will have an important discussion this week on the allocation of the jack mackerel total allowable catch. It is well understood that this is a sensitive and challenging issue for many Members and CNCPs in SPRFMO. I am optimistic that we can, as we have done before, take full account of our Scientific Committee's advice and maintain clear sight of our objective in the course of our negotiations, which is to rebuild the jack mackerel stock to within sustainable limits to ensure it is available to us for many generations to come.

We cannot forget our bottom fisheries, which will always receive global attention. SPRFMO, like other RFMOs with competence over deepsea fisheries, can play a role in demonstrating that bottom fishing can be managed for the sustainability of target species and deep water ecosystems.

I am mindful that we have a busy agenda ahead of us. As is our usual practice, we must examine the list of vessels that are presumed to have engaged in IUU fishing in the South Pacific Ocean, as well as consider any modifications to the 2016 IUU list. I believe SPRFMO has a strong record in its efforts to combat IUU fishing. We have very clear rules about what constitutes IUU fishing. Any vessel fishing in contravention of those rules—regardless of its flag State, size or purpose—should be aware that inclusion on the SPRFMO IUU list is a very real consequence and this Commission will not be lenient in listing such vessels.

Once again, I see that progressing establishment of the VMS is a priority for the Commission this year. Our Commission made positive progress at our 2016 annual meeting and I am confident this trend will continue. I acknowledge the hard work of the VMS working group during the intersessional period, as well as that of the CTC during its meeting, to resolve complex and interrelated issues that are critical for the implementation of our system.

The Observer Program working group has also made significant progress which I commend – we recognised the importance of a developing a SPRFMO Observer Program during the negotiations on our Convention and I look forward to seeing this materialise.

I am pleased to see so many Members and CNCPs contributing intersessionally, and during meetings, to these important issues. Thank you to everyone involved for your efforts.

We will also review a number of measures at this meeting, including our Compliance Monitoring Scheme and the Minimum Standards of Inspection in Port. Regularly reviewing our measures and procedures, and committing to continuous improvement, is an important practice for any RFMO.

Finally, I would like to take the opportunity to thank you all personally for your support and advice during my term as Chairperson of the Commission. It has been a rewarding two years. It has been a wonderful opportunity to contribute to the work of this very important RFMO from its establishment.

I am confident the Commission can elect a new Chairperson from within its membership that can capably lead this Organisation into its next stage of development. The success we have experienced thus far is as much a reflection on the hard work and dedication of all delegations as it is on the strength of our Convention and our CMMs. I am proud to leave this office with SPRFMO in such a positive place.

On that note, I am pleased to declare the 5th meeting of the SPRFMO Commission open.

COMM 5 - Report - ANNEX 11c

Intervention by SPRFMO Executive Secretary, Dr Johanne Fischer

Thank you for giving me the floor. I would like to congratulate the Members on the excellent progress made again this month in addressing the objectives of this Convention and the important results in this regard achieved during this meeting.

It is good to be involved in an organisation as vibrant as this one, and it is a great pleasure to work with all of you, not just during the annual and scientific meetings but also throughout the year. I feel very much a part of these activities: As Executive Secretary I am responsible to ensure that every Member and CNCP receives all information it requires to implement the decisions and measures adopted by the Commission. To achieve this important goal, my colleagues and I at the Secretariat provide you with the necessary guidance. We read and reply to many thousands emails per year and talk things through over the phone if needed.

We also provide you with numerous reports which summarise and analyse the data you send to us. In addition, we produce information documents to assist you in your work, such as the development of a VMS and an Observer Programme, the review of the financial formula, the regular review of the organisation, our collaboration with other organisations and so on. Furthermore, the organisation is benefitting from the new GST status that I have been able to negotiate with New Zealand and which ensures that taxes paid on goods and services are returned to the Organisation.

As Executive Secretary, I am responsible for the wellbeing of staff members and to ensuring that the work conditions at the Secretariat are fair and equitable. The functioning of this organisation much depends on the essential work of me and my colleagues at the Secretariat, and the appropriate level of staffing in the Secretariat depends on you. I believe that the staff regulations adopted by you in 2016 provide a good foundation in this regard. For expatriate staff members, the Secretariat could find a recognised retirement fund in New Zealand, and we have also been lucky by joining the WCPFC group health insurance that will allow future international staff members to work for SPRFMO even if they or one of their family member is handicapped or ill.

Working in my position has its ups and downs but overall it brings me much satisfaction. Therefore, it is with great regret that I must inform you that at this time I cannot confirm my availability for a second term of my appointment. My contract ends in June 2018 and it is my intention to fulfil this term. So, during the coming months you can fully count on me to perform my duties with the same level of commitment as I have done until now.

I thank you all for very much for your support during these two years and I would also like to convey my deep appreciation to my colleagues at the Secretariat for their hard work, loyalty and dedication.

COMM 5 - Report - ANNEX 11d

Intervention by CCAMLR Executive Secretary, Dr Andrew Wright

Thank you Chair. At last year's meeting, CCAMLR Members accepted Australia's offer to observe your meeting here on behalf of CCAMLR members. Nevertheless, it has been useful taking advantage of the proximity of your meeting to our office in Hobart to sit in and observe the current issues for SPRFMO from a Secretariat perspective. Thank you Australia, and the SPRFMO Secretariat, for the efficient administrative arrangements and hospitality for this meeting.

SPRFMO and CCAMLR have had a formal relationship for several years now – initiated by CCAMLR Members in 2013. This relationship has perhaps not been quite so formal as might be provided for under a MoU; it was signed by the respective Chairs and the Arrangement has proven useful in terms of facilitating regular exchanges between both Secretariats and, as is evident this week, among your Members that are also Members of CCAMLR.

Of course, CCAMLR is extremely interested in compliance-related issues – particularly matters of non-compliance involving vessels that have a history in CCAMLR. Our procedures associated with Compliance Evaluation are not dissimilar as are our IUU discussions. It goes without saying that New Zealand's research fishing for toothfish in the SPRFMO Convention Area is a very encouraging initiative that offers significant opportunity for SPRFMO/CCAMLR collaboration particularly for our respective Scientific Committees.

Your discussions this week on VMS and the on-going work to develop an observer programme are also very relevant.

Another area of strong interest to CCAMLR is by-catch – particularly seabird mortality in fisheries north of the CCAMLR Convention Area. As you all probably know, CCAMLR has been very successful in reducing seabird mortality in CCAMLR fisheries to very low numbers in the past 5 years – approaching zero in some years. This is a very different story to the thousands of birds that were killed in fisheries operating in the CCAMLR Convention Area in the early 1990s.

However, the mitigation efforts of fishing vessels in the CCAMLR Convention Area is severely undermined if seabird populations that are now relatively protected in the CCAMLR Convention Area are exposed to elevated mortality levels in fisheries to the north of CCAMLR's Convention Area. Efforts in all multinational regional fisheries arrangements, and domestically within areas under national jurisdiction, within the range of these seabird populations is urgently needed to minimise mortality and complement the successes in CCAMLR. The information reporting and assimilation intent described in CMM 4.09, and the invitation to the SC to advise on possible improvements to mitigate seabird interactions, is encouraging – as is SPRFMO's on-going engagement with ACAP – an organisation with which CCAMLR also has a formal working arrangement. It is to be hoped a fully implemented observer scheme will help collect appropriate data that the SC can use to advise the Commission on options for strengthening mitigation efforts in all SPRFMO fisheries.

Finally, Chair, as SPRFMO Members who are also Members of CCAMLR are aware, CCAMLR will be undertaking a second performance review this year. It is possible that our experience with that, and its outcomes, may be informative for consideration of the first review of SPRFMO procedure that you will consider at next year's meeting.

Thank you Chair. We look forward to the continuing strengthening of relations between our two organisations for mutual benefit.

COMM 5 - Report - ANNEX 11e

Intervention by SIOFA Executive Secretary, Mr Jon Lansley

Dear Chairperson and distinguished delegates I would like to make a brief statement on behalf of the Southern Indian Ocean Fisheries Agreement (SIOFA) to express my pleasure at being able to attend this 5th Meeting of the Commission of the South Pacific Regional Fisheries Management Organisation.

My name is Jon Lansley and I have been awarded the honour of being appointed the first Executive Secretary for SIOFA and recently commenced this appointment in October 2016.

SIOFA is a new non-tuna RFMO and the Secretariat is based in La Réunion in the Southern Indian Ocean.

Attending this meeting is a great opportunity for me to learn more about the management of RFMO meetings from those who have more experience in this, and as this is my first SPRFMO meeting, to make many new useful contacts.

It is important that we ensure good cooperation and harmony amongst RFMO's, share good practice in the management of our organisations and in achieving our objectives.

SIOFA aims to model best practice of existing RFMO's and therefore I am very happy to be here to observe best practices of SPRFMO and receive advice and support as has been generously offered to me by SPRFMO secretariat staff and members.

It is an honour to be amongst you all and I look forward to building and maintaining good working relations between SPRFMO and SIOFA.

I would like to take this opportunity to announce that the SIOFA website is now live. If one searches for 'www.siofa.org' you should find it. Please view this website as a work in progress but it is a start and all basic documents can be found here. This website has been developed with the generous support of IT staff of the North East Atlantic Fisheries Commission (NEAFC).

I wish you a productive meeting and thank you very much.

COMM 5 - Report - ANNEX 11f

Proposal for WMO and RFMO Collaboration, Dr Karen Evans

REGIONAL FISHERY BODY SECRETARIATS' NETWORK

Sixth Meeting
Rome, 9 and 15 July 2016
PROPOSAL FOR WMO AND RFMO COLLABORATION

As a specialized agency of the United Nations, the World Meteorological Organization (WMO) is dedicated to international cooperation and coordination on the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources.

Over the past few years, there has been greater interaction of the WMO community with the fisheries communities of the world and increased discussion between WMO and FAO on fisheries issues. WMO has learned that Regional Fisheries Management Organizations (RFMOs) and other institutions collect marine meteorological and ocean observations by ships and anchored fish aggregating devices (FADs).

WMO Members, the National Meteorological and Hydrological Services of the world, work around the clock to provide vital weather and climate information worldwide. Their early and reliable warnings of severe weather and ocean conditions as well as of climate variability and change allow decision-makers, communities and individuals to be better prepared for weather and climate events. This includes such as events such as El Niño and La Niña and other ocean conditions that can greatly impact oceanic and inland fisheries.

In order to provide warnings over land and oceans, there is a need for the establishment and liaison of networks of observational sources to provide weather, climate and ocean related data. The National Meteorological and Hydrological Services maintain their own observational networks along with liaising with other national and regional partner institutions. The observations collected are also used to determine the status of the atmosphere and oceans with regards to climate change. The amount of direct surface and sub-surface ocean observations are very sparse and any increase in the number of observations will lead to increased accuracy of short-term weather forecasts (1-10 days) and long-term climate predictions (3-12 months) over the coastal and open oceans areas.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

RSN members are kindly requested to bring their copies to meetings. RSN related documents can be accessed at <http://www.fao.org/fishery/nems/40832/en>, in order to minimize environmental impact and promote greener communications.

COMM 5 - Report - ANNEX 11g

Intervention by Deep Sea Conservation Coalition, Mr Duncan Currie

Thank you Mr Chair and good afternoon delegates.

This intervention is given on behalf of the Deep Sea Conservation Coalition (DSCC), which represents over 70 NGOs. We firstly thank the Australian government and delegation for its hospitality and for keeping the weather cool.

We have made our briefing available on the website but would like to briefly outline some recommendations. They appear on pages 1 and 2 of our briefing.

First and foremost, we recall the UNGA bottom fishing review this year, and highlighted on page 4 of our briefing the recommendations. These are directed specifically at RFMOs and States engaging in bottom fishing.

Some of the specific calls were that: (para 180 of resolution 71/123)

(a) to use the **full set of criteria** in the Guidelines to identify where VMES occur or are likely to occur as well as for assessing significant adverse impacts (SAIs);

(b) to ensure that **impact assessments**, including for cumulative impacts, are:

- conducted consistently with the Guidelines, particularly paragraph 47,
- are **reviewed periodically and are revised**
- carried out as a priority **before authorizing bottom fishing activities**;

(c) To ensure that measures are based on and updated on the basis of the best available scientific information, noting in particular the need to improve **effective implementation of thresholds and move-on rules**.

Mr Chair, the NZ information paper recommended that the Commission:

- **Comment** on the merits of a prescriptive bottom fishing CMM versus a high-level bottom fishing CMM.

We note that the SC has already advised on that and on page 13:

- **agreed** that a more prescriptive bottom fishing CMM for all members may be easier to implement and control, more consistent, and more likely to work effectively, compared with a high-level CMM under which members can choose how to give effect to the CMM's requirements;

In response to Chile's intervention, the SC noted that a single, prescriptive measure may not be possible across both western and eastern parts of the SPRFMO Area given that Chile has a historical footprint as well as Australia, New Zealand and Korea.

We therefore recommend that the Commission directs the SC to develop a more prescriptive measure which implements the relevant UNGA resolutions and the FAO Deep Sea Guidelines.

Other recommendations are listed in our briefing and in brief are as follows:

1. CMM 4.03 should be amended and implemented consistent with the key provisions of UNGA resolutions, avoiding significant adverse impacts on VMEs as well as ensuring the sustainability of deep-sea stocks and non-target species¹.
2. On Vulnerable Marine Ecosystems (VMEs)² it is crucial that the measure be revised according to the UNGA resolutions and FAO DS Guidelines.
3. States that intend to continue bottom trawling should update their impact assessments as a matter of urgency by a specified date³.
4. Finally, the Commission should put into place a process to study ecologically or biologically sensitive areas (EBSAs) identified in the Commission area and to identify appropriate responses, including protected areas. This should include a specific request to the SC to assess the EBSAs in the Commission Area and make recommendations.

We welcome the EU's intervention calling for an inclusive process and look forward to stakeholders being included. In response to NZ's intervention, DSCC specifically requests to be involved in the working group, and welcome Australia's suggestion to hold a workshop in Australia. DSCC would be happy to contribute experts.

Mr Chairman, we look forward to a productive meeting. Thank you.

¹ 1. On target species: The Commission should require the provision by all Members and CNCs of a complete catch history for all stocks of all target species, with sufficient precision, as well as ask for the SC to advise and provide recommendations on reference points.

2. On bycatch species: The Commission should instruct the SC to prioritize further research and advice on conservation measures for non-target species, and amend the list of "other species of concern" in Annex 14 of CMM 4.02, as proposed by the SC, to include deep-sea sharks. With respect to both target and bycatch species, the Commission should urgently ensure that conservation and management measures are established consistent with the precautionary approach, in particular with regard to vulnerable, threatened or endangered species, as called for in resolution 71/123

² 1. The Commission should instruct SC-5 to:

1. Modify the measure to specifically address the potential impacts of midwater trawling for benthic-pelagic species on VMEs;
2. Redraw the bottom fishing footprint to correspond to areas where bottom fishing has actually occurred over the past several years;
3. Initiate a program of marine scientific research according to resolution 71/123, including predictive modelling, non-impact methods of sea-based surveys and investigating and encouraging the use of cameras on towed nets;
4. Initiate a program to map the distribution of VMEs within the footprint, using the full set of criteria in the FAO Guidelines to identify VMEs and where they occur or are likely to occur, as well as for assessing significant adverse impacts (SAIs) as called for in resolution 71/123;
5. Assess cumulative impacts, including past impacts from bottom fishing and impacts from other sources than bottom fishing, such as from ocean acidification and climate change and take further measures to protect VMEs accordingly; and
6. Design a SPRFMO-wide move-on rule in the SPRFMO area to be established and consistently applied to vessels from all flag States fishing in the region, apply to all areas where vessels are permitted to bottom fish, and require the immediate temporary closure of an area for all vessels where a VME encounter occurs pending an assessment by the SC that either VMEs do not occur in the area or SAIs will not occur as a result of reopening the area to one or more methods of bottom fishing. Consistent, science-based encounter protocols should be designed and implemented to ensure the effective implementation of thresholds and move-on rules.

³ The Commission should require all countries carrying out bottom fishing to expeditiously update their impact assessments in line with the seven criteria outlined in paragraph 47 of the FAO Guidelines

Craig Loveridge

From: Neil, Gordon <Gordon.Neil@agriculture.gov.au>
Sent: Monday, 19 December 2016 11:05 AM
To: rsunico@subpesca.cl; wan.chen@live.com; chungchai@ms1.fa.gov.tw; t.costelloe@mmr.gov.c; knora.yong@minal.cu; victor.alcivar@pesca.gob.ec; Angela.MARTINI@ec.europa.eu; tefanis@uvmr.fo; David.Dolphin@mfat.govt.nz; aqua_flash@korea.kr; jrequejo@produce.gob.pe; rusfishfao@mail.ru; ggeen@bigpond.net.au; ourrutia@subpesca.cl
Cc: Johanne Fischer; Secretariat; Lyas Nicole
Subject: HODs - SPRFMO 5 Preparations [SEC=UNCLASSIFIED]

Dear Heads of Delegations

I trust everyone is well and looking forward to the 5th Meeting of the SPRFMO Commission, which is now just over 4 weeks away. I am writing to you about two issues. The first issue is the possibility of convening a separate working group for the jack mackerel allocation and the need for a neutral chair this working group. The second issue concerns the need to fill the various roles that will become vacant at SPRFMO5, and in particular the vital role of Chairperson of the Compliance and Technical Committee.

Jack Mackerel Working Group

The Scientific Committee has recommended an increase to the jack mackerel TAC which equates to an increase of 33 000 tonnes of catch in the Convention Area. As in previous years, Members may wish to convene a separate working group to negotiate the allocation of that additional TAC. As the meeting is being hastened by Australia, the Australian Delegation has indicated it could provide a Chair from its delegation for this purpose, if this course of action is supported by Members.

Australia has suggested that Mr Frank Meere is available and willing to take on this important role. Mr Meere is highly respected in his field and will be known to many of you. By way of background, Mr Meere has a wealth of experience in fisheries management, including serving as the head of the Australian Fisheries Management Authority. Mr Meere is active in the international fisheries space, particularly in issues related to IUU fishing, with a sound understanding of the complexities associated with international fisheries governance and allocation issues. Mr Meere is also a member of the International Institute of Fisheries Economics and Trade. This question is finally a matter for the members with a strong interest in the matter of allocation and the allocation process. I would very much welcome any views that you might have.

Chairperson of the Compliance and Technical Committee

As I flagged in my letter of 30 September 2016, we have the critical task of considering the Chairperson roles for our Commission. In particular, I draw your attention to the position of CTC Chairperson. This is a crucial role for the functioning of our Commission and it is my priority to ensure it is capably occupied. I am aware that our current Rules of Procedure appoint an individual to this position, rather than a Member. However, it occurs to me that it may be challenging to fill this role under the existing Rules and we may need to consider offering this role to a Member, rather than a specific person, thereby providing some flexibility in terms of who exercises this role.

I urge all delegations to consider their capacity to fulfil this role and to contemplate this proposed approach in advance of the meeting. I am open to a discussion on how to best proceed: the primary objective is to ensure that we have an effective and stable chairperson for the CTC.

Wishing you all the very best for the season, and I am looking forward to seeing you all early in the new year.

Kind regards
Gordon Neil

Chairperson SPRFMO

Gordon Neil
Assistant Secretary
Fisheries Branch
Sustainable Agriculture, Fisheries and Forestry
Department of Agriculture and Water Resources
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Lima, 04 ENE. 2017

OFICIO N° 0012-2017-PRODUCE/DVPA

Señora
JOHANNE FISCHER
Secretaría Ejecutiva de la OROP-PS
Presente.-

ASUNTO : Mensaje vía correo electrónico de fecha 20 de diciembre último, del Presidente de la Comisión de la OROP-PS, Sr. Gordon Neil.

ANEXO : Esta misma comunicación en idioma inglés

Es grato dirigirme a usted, para saludarle cordialmente y, en atención al documento del asunto aludido, remitirle nuestra opinión a las propuestas realizadas por el presidente de la Organización Regional de Ordenamiento Pesquero del Pacífico Sur (OROP-PS), Sr. Gordon Neil.

Al respecto, el Perú está de acuerdo en apoyar la parte principal de la primera propuesta planteada por el Presidente Sr. Gordon Neil, quien convoca a conformar un grupo de trabajo para la asignación de cuotas de jurel, y a su vez propone como líder de dicho grupo al Sr. Frank Meere, representante de la delegación de Australia.

Sin embargo, no apoyamos el criterio sugerido en lo concerniente a la asignación de las 33 000 t adicionales de captura de jurel recomendado por el Comité Científico y señalado en la primera propuesta, es menester dejar aclarado que no se trata únicamente de negociar la distribución de dicho volumen. Nuestra delegación considera que la negociación debe abarcar el total del volumen de captura permitida; en aplicación y de conformidad a las pertinentes disposiciones contenidas en el Artículo 21 de la Convención, que señala que se debe considerar los diez (10) criterios mencionados en el párrafo 1 de dicho artículo cuando se tomen decisiones sobre la participación en la pesca por parte de la Comisión; así como en aquellas contenidas en el párrafo 3 de las Medidas de Conservación y Ordenación para *Trachurus murphyi* (CMM 4.01 y anteriores), que señalan que lo acordado en dichas CMM no debe ser considerado como un precedente para decidir sobre adjudicaciones futuras.

En relación a la segunda propuesta, relativa a encargar la presidencia del Comité Técnico y de Cumplimiento (CTC) a la delegación de uno de los Miembros en lugar de un representante individual tal como lo establece el párrafo 1 del Artículo 11¹ de la Convención, nos parece inconveniente la solución propuesta de transferir dicha responsabilidad a la delegación de un Miembro, pues ello no garantiza una mayor objetividad e imparcialidad en la dirección de los debates de éste u otros Comités dejándose en manos de una sola delegación la decisión de quién sería la persona más adecuada para desempeñar el cargo de dirigir las deliberaciones de los miembros de la Comisión. Responsabilidad que recae en la Comisión como unidad orgánica. Es decir, en la actualidad, el Presidente y el Vicepresidente del CTC (y de los otros Comités) son elegidos por la Comisión en pleno. Este no sería el caso si la designación la efectuara una sola delegación.

¹ Artículo 11. (1) Cada miembro de la Comisión estará facultado para nombrar un representante ante el Comité Técnico y de Cumplimiento, quien podrá estar acompañado de representantes suplentes y asesores.



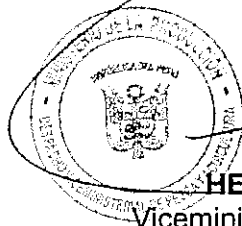
Asimismo, se hace notar que si la presidencia la ejerciera una delegación habría que evaluar la supresión del cargo de Vicepresidente, ya que sería improcedente elegir a otra delegación para el cargo de Vicepresidente, que no tendría posibilidad de entrar en funciones.

Con relación al último comentario del correo del Sr. Neil, *"el objetivo primordial es asegurar que tengamos un presidente eficaz y estable para el CTC"*, opinamos que el objetivo debiera ser que todos los Presidentes (de la Comisión y de todos los Comités) sean eficaces y no sólo el del CTC. Coincidimos en que el presidente sea estable y se mantenga en el período que señala el Artículo 7, párrafo 2 del texto de la Convención y la Regla 5 de las Reglas y Procedimientos de la Comisión, que se elige por dos años con la posibilidad de reelección por otro periodo bienal, más no en una prolongación que exceda los cuatro años.

En ese sentido, creemos que el CTC ha funcionado bien presidido por un representante individual, y deberíamos asegurar que para el futuro continúe eligiéndose personas altamente calificadas.

Hago propicia la ocasión para reiterarle los sentimientos de mi especial consideración y estima.

Atentamente,



HECTOR SOLDI SOLDI
Viceministro de Pesca y Acuicultura



Lima, 04 ENE. 2017

OFICIO N° 012 -2017-PRODUCE/DVPA

Mrs.

JOHANNE FISCHER

EXECUTIVE SECRETARY

South Pacific Regional Fisheries Management Organization

PO BOX 3797, Wellington 6140, New Zealand

SUBJECT: E-mail message of 20 December 2016 from the Chairman of the SPRFMO Commission, Mr Gordon Neil.

Dear Mrs. Fischer,

It is a pleasure to cordially greet you and state our views regarding the proposals made by Mr. Gordon Neil, President of the South Pacific Regional Fisheries Management Organization (SPRFMO) in the ref. email .

Peru supports the first proposal put forward by the SPRFMO President, Mr. Gordon Neil, regarding the need to convene a working group for the Jack mackerel allocation as well as the suggestion of having Mr. Frank Meere as the leader of this working group, as proposed by Australia.

However, we do not support the suggestion that the negotiations should focus only on the allocation of the additional 33 000 tonnes of Jack mackerel recommended by the Scientific Committee, as suggested in Mr. Neil's first proposal. It is our view that the negotiations should involve the total allowable catch as well, in application and conformity with Article 21 of the Convention which states that decisions regarding participation in fishing by the Commission should take into consideration all ten (10) criteria mentioned in paragraph 1 of this Article. . Paragraph 3 of the Conservation and Management Measures for *Trachurus murphyi* (CMM 4.01 and earlier), also states that what was agreed in those CMM should not be considered as a precedent for deciding on future allocations.

With regard to the proposal of entrusting the chairmanship of the Compliance & Technical Committee (CTC) to the delegation of one of the Members instead of an individual representative as provided for in paragraph 1 of Article 11¹ of the Convention, we think this is inconvenient, since this does not guarantee greater objectivity and impartiality in the conduct of the discussions of this Committee or of other Committees, leaving a single delegation to decide who would be the most suitable person to hold the position of directing the discussions of the members of the Commission. This responsibility should be entrusted to the Commission as an organizational unit. At present, the Chairperson and Vice-Chairperson of the CTC (and the other Committees) are elected by the full Commission. This would not be the case if the designation were made by a single delegation.

¹ Article 11. (1) Each member of the Commission shall be entitled to appoint one representative to the Compliance and Technical Committee who may be accompanied by alternate representatives and advisers.

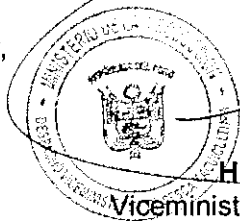


Likewise, it should be noted that if the Chairperson were to be held by a delegation, the Commission will have to evaluate the suppression of the role of Vice-Chairperson, since it would be inappropriate to choose another delegation for the role of Vice-Chairperson, who would find itself in the position unable to take office.

Regarding the last comment in Mr. Neil's email, "*the primary objective is to ensure that we have an effective and stable chairperson for the CTC*", we believe that the objective should be that all Chairpersons (of the Commission and of all Committees) are effective and not just the CTC. We agree that the Chairperson should be stable and remain for the whole period indicated in Article 7, paragraph 2 of the text of the Convention and Rule 5 of the Rules and Procedures of the Commission, which should be elected for two years with the possibility of re-election for another two year period, but not in an extension that exceeds four years.

In that sense, we believe that the CTC has worked well under the chairmanship of an individual representative, and all effort should be made to ensure that for the future, highly qualified people continue to be selected to that post.

Yours Sincerely,



HECTOR SOLDI SOLDI
Viceminister of Fisheries and Aquaculture

COMM 5 – Prop 01

Proposal on Interim Allocation of Jack Mackerel Quotas

Vanuatu

In recent years, while the jack mackerel stock has been rebuilding, the Commission has implemented interim quota allocations for the jack mackerel resource amongst actively fishing Member countries. Although there have been some changes to the ‘formula’ over the period, the central approach has remained intact and has provided some stability and quota security to the fishing activities of Member countries.

The annual jack mackerel TACs have been set at conservative levels to allow the stock to grow and, as a result, catches have been restrained.

The purpose of this paper is to outline two issues related to the quota allocation regime and propose solutions that, if implemented, will strengthen the process. The two issues are:

1. Achieving increased utilization of quotas; and,
2. Providing fishing opportunities for new entrants.

INCREASED QUOTA UTILIZATION

In the 3-year period, 2013-15, total utilization of the TAC averaged at 84%. However, within this overall average, the average utilization of national quotas has varied widely from nil to 100%. During this period, shortages of quota were experienced by some countries while other countries caught little or none of their quotas but despite having the ability to temporarily transfer these surplus quotas, did not do.

FISHING OPPORTUNITIES FOR NEW ENTRANTS

Under the current interim allocation arrangement there is little scope for previously inactive Members of the Commission or CNCPs to enter the fishery. This is likely to become an increasing source of friction between members and CNCPs as the jack mackerel stock recovers and TACs increase.

PROPOSALS

1. Establish a minimum annual utilization standard of quota that, if not reached, would lead to that Member not being entitled to share in any increase in the TAC in the following year.

The minimum annual utilization standard would comprise both catches and quota transfers. For example, if a member transferred all of its uncaught annual allocation it would achieve 100% utilization.

The minimum annual utilization standard could be set at a level of say 70% of the average utilization of quotas by all Members fishing for jack mackerel during the preceding 3 years.

If a Member fails to achieve the minimum utilization standard, then the catch limit of that Member would remain at the current level rather than increasing in line with any increase in the TAC in the following year.

The forfeit amount of quota would be assigned by the Commission to new entrants, whether Member states with no or very low allocations or CNCPs.

2. To avoid within year under utilization of quotas, Members and CNCPs should be required to notify the Secretariat of their intention to catch or transfer their allocation by 1 March.

Members or CNCPs that either fail to advise the Secretariat by 1 March or, having given this advice, fail to substantially catch or transfer their allocation by 1 June, will forfeit their allocation for the current year.

Forfeit allocations under this proposal would be reassigned amongst active fishing Members and CNCPs based on their respective shares of the current TAC.

To: Members and CNCPs

Dear colleagues,

Re: Response from Peru regarding COMM5-Prop01

Please find attached a letter from Peru received today for your consideration at the 2017 Commission meeting. In it Peru explains its position with regard to COMM5-Prop01 on an “*Interim Allocation of Jack Mackerel Quotas*” submitted by Vanuatu.

Sincerely yours,



Johanne Fischer
Executive Secretary



Lima, January, 10 2017

OFICIO N° 013 -2017-PRODUCE/DGP

Dr.
JOHANNE FISCHER
EXECUTIVE SECRETARY
South Pacific Regional Fisheries Management Organization
PO BOX 3797, Wellington 6140, New Zealand


SUBJECT: Proposal to review the jack mackerel quota allocation process by the Commission by Peru

Dear Mrs. Fischer

It is a pleasure to cordially greet you and inform the Secretariat about our "Proposal to Review the Jack Mackerel Quota Allocation Process" we would like to submit for consideration at the upcoming 5th meeting of the SPRFMO Commission taking place in Adelaide, Australia, from 18 to 22 January 2017.

Yours Sincerely,




IVAN TELMO GONZÁLEZ FERNÁNDEZ
General Direction of Policy and Fisheries Development

/SAA

5th Meeting of the Commission
Adelaide, Australia 18 to 22 January 2017

**Proposal to Review the Jack Mackerel Quota
Allocation Process by the Commission**

by
Peru

BACKGROUND

The allocation of the annual quota of jack mackerel to be caught in the SPRFMO Convention area is one of the most controversial issues that the Commission has to face every year, and possible alternatives for settling the quota allocation issue equitably, objectively and transparently, and in full accordance with the specific provisions in the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean are by all means worth considering. Some concerns regarding inequities in earlier allocations have been aired by Peru and others in previous sessions of the Commission and while providing some general comments, this document invites a more thorough review of the quota allocation process with the aim of promoting a more settled arrangement for the future. While doing so, some comments are offered regarding one other proposal submitted this year by Vanuatu as COMM 05-Prop 01, to then propose a wider discussion of the jack mackerel quota allocation issue.

COMMENTS ON DOCUMENT COMM 05-Prop 01

While there might be some merit in the general aim of increasing the utilization of jack mackerel catch quotas while reducing possible frictions between members and CNCP's when negotiating the allocation of such quotas, the specific proposal in Prop 01 of establishing "*a minimum annual utilization standard of quota that, if not reached, would lead to that Member not being entitled to share in any increase in the TAC in the following year*" is, at present and under the current circumstances, objectionable or at best inconvenient.

Firstly, this proposal seems to be based on an over-optimistic interpretation of the findings and conclusions of the Scientific Committee regarding the recovery of the jack mackerel stock(s) and relies on an incomplete interpretation of the Committee's recommended catch limit. Secondly, it proposes a scheme that retroactively would penalize a minority group of participants for acts (not fishing their allocated share of the total quota) that don't constitute infringement and don't merit being penalized, let alone retroactively. Particularly considering that, independently of their real causes, these absences or decreases in catches contribute voluntarily or involuntarily to lowering the total catch and resulting F's. Thus, favor a faster recovery of the jack mackerel that, while recovering, is still overfished or below its MSY expected levels.

This proposal also seems to assume that this year's allocation is already settled and that only the annual increase in the recommended total TAC needs to be negotiated. This is contrary to what

has been agreed in earlier sessions of the Commission, as reflected by paragraph 3 of the Conservation and Management Measures for *Trachurus murphyi* (CMM 4.01 and earlier) in which it is clearly stated that past allocations are not to be considered a precedent for future allocation decisions.

Furthermore, this proposal tends to exacerbate the perceived unbalance in the consideration of the criteria that has been used in the allocation process, whereby most if not all the weight has been given to the first allocation criterion (historic catch and past and present fishing patterns and practices in the Convention Area) in Article 21, paragraph 1 of the Convention. While little or no explicit consideration has been given to the other nine criteria in the same Article and paragraph of the Convention, which shall also be taken into account when taking decisions regarding participation in fishing for any fishery resource in the Convention Area.

ASSESSMENT AND CATCH LIMIT RECOMMENDED BY THE SCIENTIFIC COMMITTEE

The Scientific Committee SC-04 Report concludes (section 5.4) that the jack mackerel stock in its entire distribution range in the southeast Pacific shows a continued recovery and that fishing mortality is well below candidate F_{MSY} levels, but also reports that all current and short-term projected spawning stock biomass (B) estimates are still below the estimated B_{MSY} . This is clearly shown in the summary results in Table 1 and in the Kobe plot in Figure 1 in the body of the report and in the table and Figure 1 of its Annex 3 (Stock status summary). That is, while there is no overfishing, jack mackerel is still to be considered as overfished, although it is on its path to recovery.

Also, as shown in the various projections in Table 1 of the SC-04 Report, all further reductions in F are expected to contribute to improve the likelihood of spawning biomass increases. That's why the SC recommendations clearly states that *"the Commission should aim to maintain 2017 and 2018 catches for the entire jack mackerel range in the southeast Pacific at or below 493 kt."* Where it is worth noting that the SC recommendation clearly says *"...at or below 493 kt"*, thus recommending that there should be a limit for the maximum (493 kt) while indicating that any value below that maximum would be acceptable. Therefore, no minimum is recommended by the Committee, although an accurate reading of the SC-04 findings suggest that the lower the F's and total catch values the faster the recovery of the stock(s).

POSSIBLE SETTING OF MINIMUM ANNUAL UTILIZATION STANDARDS

Therefore, an approach that would encourage fuller utilization of jack mackerel quota allocations in the Convention area along the lines proposed by Vanuatu should only be acceptable once the spawning stock biomass (B) is found to be at or well above B_{MSY} , meaning that the stock recovery objectives have been achieved. Which, as explained above, is not occurring yet.

Another requirement to consider in a proposal like this is that any rule or formula agreed upon should be applied using only data (on allocations, catches and/or transfers) corresponding to time periods following the date the standard was adopted, so that this doesn't result in a retroactive application of the adopted rule or guideline. Therefore, if the average utilization of quotas during the preceding 3 years is to be incorporated in an allocation formula, the formula using this value shall only be applied 3 years after it has been adopted.

Nevertheless, this still represents a further refinement of the application of only one of the ten criteria that, according to Article 21, paragraph 1 of the Convention, shall all be taken into account to the extent relevant when taking decisions regarding participation in fishing for any fishery resource in the Convention area. Therefore, if taken in isolation, this proposal (to set minimum quota utilization standards) would exacerbate the already excessive weight being given so far to the first criterion (historic catch and past and present fishing patterns and practices in the Convention area) in Article 21 of the Convention, while little or no explicit consideration continues to be given to the other nine criteria in the same Article and paragraph of the Convention, and which shall also be taken into account when taking decisions regarding participation in fishing for any fishery resource in the Convention Area. This unbalance in the consideration and eventual weighting of the ten criteria in the current quota allocation process needs to be corrected.

NEED FOR AN OPEN DISCUSSION ON THE ALLOCATION CRITERIA

So far it is the historic catch what has been used by the Commission as the main and in most cases as the only criteria to allocate the annual interim catch quotas of jack mackerel in the Convention area, and there have been some criticisms for that already. However, although criticized, this limited approach was to some extent understandable since the historic catches was the only readily available piece of information at the disposal of Commission against which a criterion could be weighted, by assigning a relative value to past catches and use this values to guide calculations for allocating future quotas. However, the Commission has now entered into its fifth year of formal existence and it might be the proper time to start moving beyond the current interim arrangements by giving fuller consideration to all ten criteria in Article 21 of the Convention, and ensure that these are incorporated more explicitly in their formula and procedures for future catch quota allocations.

It is therefore recommended that the Commission endeavors in a more thorough analysis of possible ways, methods and eventual formulae that would more explicitly incorporate all ten criteria in Article 21 in their jack mackerel quota allocations.

COMM 5 – Report – ANNEX 8a

CMM 4.01 (new: CMM 01-2017). Conservation and Management Measure for *Trachurus murphyi*

(COMM5-WP06)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 29 September to 3 October of 2016 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 4.05; 2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *Trachurus murphyi* undertaken by Chile in areas under its national jurisdiction.
2. Only fishing vessels duly authorized pursuant to Article 25 of the Convention and in accordance with CMM 4.05 (Record of Vessels; 2016) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

Effort management

4. Relevant Members and CNCs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention

¹ In the event that GT is not available, Members and CNCs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

5. In 2017 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to 443 000 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the Flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2017 throughout the range of the stock should not exceed 493 000 tonnes.

Data collection and reporting

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 4.02 (Data Standards; 2016) and using templates prepared by the Secretariat and available on the SPRFMO website.
12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
13. Except as described in paragraph 11 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 4.02 (Data Standards; 2016) and the templates available on the SPRFMO website, including an annual catch report.
14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
15. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 4.02 (Data Standards; 2016) and other relevant CMMs adopted by the Commission. These VMS data shall be provided to the Executive

Secretary within 10 days of each quarter in the format prescribed by the SPRFMO Data Standards and using the templates on the SPRFMO website.

16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorized to fish in the fishery in accordance with Article 25 of the Convention and CMM 4.05 (Record of Vessels; 2016) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 4.02 (Data Standards; 2016).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2017 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2017 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2017 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
19. In accordance with Article 24(2), all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 4.10 (Compliance Monitoring Scheme; 2016). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its Workplan (2017) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - (a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - (b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for vessels flying their flag and ensure that such observers collect and report data as described in CMM 4.02 (Data Standards; 2016). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.

in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in respect of fisheries in adjacent areas under national jurisdiction

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

Special requirements of developing States

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

25. This Measure shall be reviewed by the Commission in 2018. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015) and CMM 4.01 (*Trachurus murphyi*, 2016) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20 paragraph 4(c) of the Convention and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.

Table 1: Tonnages in 2017 fishery as referred to in paragraph 5

Member / CNCP	Tonnage
Chile	317 300
China	31 294
Cook Islands	0
Cuba	1 100
Ecuador (HS)	1 179
European Union	30 115
Faroe Islands	5 466
Korea	7 321
Peru (HS)	10 000
Russian Federation	16 183
Vanuatu	23 042
Total	443 000

Table 2: Percentages³ related to the catches referred to in paragraph 10

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive.

6th Meeting of the Commission Lima, Peru, 30 January to 3 February 2018

COMM6 – Report (Rev 1, 15 Feb 2018)

1. OPENING OF MEETING

The Minister of the Peruvian Ministry of Producción, Ms Lieneke Schol, accompanied by Mr Hector Soldi, Vice-Minister of Fisheries in Peru and Vice-Chairperson of the Commission, welcomed participants to Peru and to the Sixth SPRFMO Commission Meeting. She highlighted the importance of the SPRFMO for the conservation of high seas resources in the South Pacific, commending the Commission for the significant progress made so far in achieving the objectives of the Convention, and wished all a prosperous meeting (ANNEX 12a).

The Chairperson of the Commission, Mr Osvaldo Urrutia (Chile), then opened the meeting and reminded participants of the critical decisions to be taken at this meeting. He thanked Peru for hosting the meeting, the chairpersons of subsidiary committees and working groups for their significant intersessional efforts, and to the Secretariat for supporting his work (ANNEX 12b).

a. Adoption of Agenda

The Commission adopted the provisional agenda (ANNEX 1) without any changes.

2. MEMBERSHIP

a. Status of the Convention

As the Depositary of the SPRFMO Convention, New Zealand provided an update of the status of the Convention (COMM5-Doc08) and reported that after the United States of America ratified the SPRFMO Convention on 19 January 2017, which entered into force for the United States of America on 18 February 2017, the Commission has 15 Members. During 2017, the Republic of Liberia and the Republic of Panama were Cooperating non-Contracting Parties.

b. Participation in the taking of decisions by the Commission

In accordance with Article 15.9 of the Convention, the Executive Secretary informed the Commission that all Members had paid their assessed contributions in full and were thus participating in the taking of decisions by the Commission.

3. SCIENTIFIC COMMITTEE (SC)

a. Report of the Committee

The Chairperson of the SC, Dr James Ianelli (United States of America), presented the report and scientific advice of the 5th SC meeting that was held in Shanghai, China, from 23 to 28 September 2017 (SC5-Report). The Commission thanked the Scientific Committee and Dr Ianelli for the excellent work and advice.

The Commission adopted the report of the SC.

b. 2018 Scientific Committee Workplan

The Commission requested that the Scientific Committee Chairperson coordinate the drafting of the 2018 multi-annual workplan for the Scientific Committee. In this context, Members remarked on the importance of advancing Jack mackerel aging techniques, improving squid stock assessment and data provision to the SC, the need of reviewing the bottom fishing impact standards and to continue the work on seabird bycatch, in particular the endangered antipodean albatross. It was also requested to include in the work plan an estimate of financial resources required to allow the SC to conduct its work.

The Commission adopted the 2018 multi-annual workplan of the Scientific Committee (ANNEX 3).

4. FINANCE AND ADMINISTRATION COMMITTEE (FAC)

a. Report of the Committee

The Chairperson of the FAC, Ms Kerrie Robertson (Australia), presented the report (FAC5-Report) and recommendations of the fifth meeting of the FAC held during the sixth Commission Meeting. The Commission adopted the report and the FAC recommendations which were the following:

- That the Commission accept the Annual Financial Statements (FAC5-Doc03).
- That the Commission adopt COMM6-Prop10, Revision 2, which described a new budget formula to apply from January 2019, as well as a commitment to review the formula at the 2020 Annual Meeting (ANNEX 4c).
- That the Commission adopt COMM6-Prop11, revision 1 to amend the Financial Regulations to require a travel plan to be developed as part of the budget-setting process (ANNEX 4c).
- That the Commission adopt COMM6-Prop12, Revision 2, to amend the Staff Regulations in relation to leave, travel and separation of service (ANNEX 4d).
- That the Commission adopt COMM6-Prop13, Revision 1, for an internship and secondment policy (ANNEX 4e).
- That the Commission approve the proposal by Korea to second one of its staff members to the Secretariat for a period of up to two years.
- That the Commission continue to work on the development of a 2018-19 budget and also consider the forecasted budget for 2019-20.
- The FAC Chairperson recommended that the Commission apply the principles contained in the FAC3 meeting report to establish the schedule of contributions.
- That the Commission agree to the proposed dates and venue for the next Annual Meeting.

b. Budget Contribution Formula

The Commission agreed to revise the budget formula specified in Regulation 4.7 of the Financial Regulations consistent with Attachment A of COMM6-Prop10 Revision 2 (ANNEX 4c).

c. Budget and Schedule of Contributions

The Commission reviewed the draft budget presented by the FAC and adopted the 2018-19 budget (COMM6-Budget 2018-19) and noted the forecast for 2019-20 (ANNEX 4a). A schedule of contributions for the 2018-19 financial year was also adopted (WP 23, Revision 2, ANNEX 4b).

d. Date and Venue of the next meeting of the Commission

The Commission thanked the European Union for its offer to host the next meeting of the Commission in 2019 and adopted the proposed venue and date: The Hague, Netherlands from 19 to 27 January 2019 (CTC 19-21 January, Commission including FAC 23-27 January).

5. COMPLIANCE AND TECHNICAL COMMITTEE (CTC)

a. Report of the Committee

The Chairperson of the CTC, Mr Tobias Hanson (Australia), presented the CTC5-Report and recommendations of the CTC Meeting held from 26-28 January 2018 in Lima, Peru. In summary, the recommendations from the CTC to the Commission were the following:

- a. Regarding the VMS-WG, the CTC recommended that discussions be continued in the Commission, including revision of COMM6-Prop01.
- b. Regarding the Observer Programme-WG, the CTC recommended that revision of the new CMM on Observer Programme (COMM6-Prop02) continue during the Commission Meeting and that the Commission revise the terms of reference for the OPWG, as appropriate.
- c. The CTC adopted a Provisional Compliance Report for consideration of the Commission (COMM6-Doc06).
- d. In relation to the implementation of certain CMMs, the CTC:

- e. Endorsed the advice outlined by the Secretariat regarding pair trawling (CTC5-Doc08) and recommended to task the SC with reviewing potential ecosystem and stock assessment impacts related to pair trawling.
- f. Asked the Commission to consider clarifying the scope of the obligation in CMM 12-2017 to undertake transshipments only between vessels authorised in the SPRFMO Record of Vessels to avoid future implementation issues.
- g. The CTC recommended that the proposals related to CMMs 01-2017 (COMM6-Prop04), 10-2016 (COMM6-Prop06), 11-2015 (COMM6-Prop07) and a new proposal for an Exploratory Pot Fishery (COMM6-Prop03) be further developed by the proponents in consultation with Members during the Commission meeting.

b. Final Compliance Report

The Commission considered the Provisional Compliance Report provided by the CTC (CTC5-Doc06) and adopted the Final 2018 Compliance Report (ANNEX 5).

c. 2018 Final IUU List

In accordance with CMM 04-2017, paragraph 12, the Commission adopted the recommendation of the CTC to not include any new vessels on the 2018 IUU List.

With regard to the request from the Russian Federation to remove two of its vessels, MYS MARI and TAVRIDA, from the current IUU List, the Commission considered the conclusions of the CTC. In view of the absence of any new information since the CTC meeting, the 2018 Final IUU list was adopted, retaining all vessels on the 2017 IUU List (ANNEX 6).

On related IUU matters, the Commission discussed the case of the vessel ZHONG XIANG, flagged to Liberia. The Commission took note of Liberia's assertion that it had issued a significant fine which had been paid, and the Commission indicated that the case would be discussed by the CTC next year when considering the 2019 Draft IUU List. China indicated that it would undertake an investigation into the other vessels involved in the incident and report back to the Commission.

d. Status of Cooperating non-Contracting Parties (CNCPs)

The Commission reviewed the recommendations made by the CTC and agreed to renew the CNCP status for Liberia and accept the application made by Curaçao. Colombia was not represented at the meeting and was contacted by email to inquire about its intentions to make voluntary contributions; a reply was received during the meeting, in which Colombia assured that while it was not in a position to make such contributions for the current year, it intended to do so next year. Despite the lateness of the application and in view of its commitment for future contributions, the Commission accepted the request for CNCP status by Colombia on an exceptional basis, noting that it would be helpful if Colombia could send one or more representatives to the next Commission meeting.

Concerning the application by Panama, the Commission noted last year its deep concerns regarding *"the serious issue of non-compliance by Panama"* and *"advised that Panama should not expect its CNCP application to be approved in 2018 unless Panama takes steps to improve its cooperation with the Commission"*. After conclusion of the CTC meeting, Panama provided most of the data and reports that had been missing. The Commission acknowledged receiving this information but was also very concerned about the lateness. The application for CNCP status by Panama was accepted; however, the Commission expressed its frustration and the expectation that in order to maintain its CNCP status in 2019, Panama would have to greatly increase its level of compliance and to hold to the commitments it made regarding its Compliance Action Plans.

Regarding Decision 2-2016, the CTC asked the Commission to revise paragraph 3(c) to take into account the existence of the existing CMM 11-2017 on Boarding and Inspections Procedures in the SPRFMO Convention Area. The Commission decided under paragraph 3(c) to delete the words *"once they have been adopted"* because a high-seas boarding and inspection measure is now in place.

6. CONSERVATION AND MANAGEMENT MEASURES (CMMs)

CMM 01-2017 (*Trachurus murphyi*).

- The Commission agreed to a number of editorial changes to this CMM (see ANNEX 7a), under the condition that the revised CMM 06-2018 (VMS) would be adopted by the Commission at this meeting.
- Based on the advice of the Scientific Committee September 2017, the Commission adopted a catch limit for Jack mackerel of 517 582 tonnes in 2018. Based on this, Chile tabled a proposal to amend the Jack mackerel CMM (Working Paper 11). With regard to tables 1 and 2 of this proposal, Ecuador requested a catch entitlement of 1.13% of the total catch limit, which in 2018 would correspond to 6 500 tonnes. Ecuador also made a presentation explaining its reasons for this request, including why they could not attend the fifth Commission Meeting in Adelaide. The Commission could not agree to Ecuador's request. The Chairperson stated that there was no consensus and that all efforts to reach consensus had been exhausted. The Commission voted in accordance with the Convention, Article 16, with the result that 13 Members voted in favour of Chile's proposal, one Member (Ecuador) against and one Member was not present during the voting (Cook Islands). Therefore, CMM 01-2018 was adopted by the Commission.
- COMM6-Prop04. Vanuatu presented its Jack mackerel fishery incentive proposal. Although the proposal received wide support from among Commission Members, it could not be agreed, and it was withdrawn. Members will continue to work on it and a revised version is intended to be submitted at the next Annual Meeting.

CMM 02-2017 (Data Standards). The Commission transferred the text of paragraph 3 of this CMM to the amended CMM 06-2017 (VMS) and made consequential amendments to CMM 02-2017 to that effect (ANNEX 7b).

CMM 03-2017 (Bottom Fishing). New Zealand summarised the objectives and strategies proposed in COMM6-INF09 (submitted by New Zealand and Australia) with the aim to adopt a revision of the bottom fishing measure at the Annual Meeting in 2019. Australia and New Zealand expressed their commitment to implementing the SC's advice in full and bringing forward a revised measure to the seventh meeting of the Commission. The observers Deep Sea Conservation Coalition and NZ High Seas Fisheries Group intervened on this agenda item (see Annex 12c and d). The Commission agreed to change the date of revision in paragraph 27 from 2018 to 2019 (see ANNEX 7c).

CMM 04-2017 (IUU List). The Commission took note of the observation by the CTC that there was ambiguity in the scope of the first bullet of paragraph 14 of this CMM as regarding the removal of fishing authorisations for fishery resources under the competence of SPRFMO or whether it extended to fishing authorisations beyond the SPRFMO competence. This issue could not be resolved during the meeting.

CMM 10-2017 (CMS). The European Union introduced a revised version of COMM6-Prop06, focusing on changes to ANNEX 1, in particular a more comprehensive list of follow-up actions, including actions by the Commission itself. During this meeting Members could not come to an agreement regarding the proposed amendments and the proposal was withdrawn with the intent to present a new revision at the next Annual Meeting.

CMM 11-2015 (Boarding and Inspection). The USA introduced their COMM6-Prop07. The USA recognised that several members had expressed general support for the proposal at CTC, while also recognising that the scope of the proposal presents fundamental difficulties for one Member, and that some substantive, technical, and procedural aspects were unresolved. The USA noted that good progress had been made at this meeting and further discussions are required. China expressed its fundamental concern with the scope of the proposal, based on Article 27 of the SPRFMO Convention, and stressed that the interpretation of the SPRFMO Convention should be based on international law as stated in the 1969 Vienna Convention on the Law of Treaties. China also emphasized that the fundamental issue must be resolved as a priority and bilateral communications can make contributions to that process. Chinese Taipei expressed its view that the scope of the proposal is consistent with the Convention. Several Members were optimistic that the text provided a good basis to proceed and reach a satisfactory solution. The proposal was withdrawn with the intent

of continuing discussion intersessionally, including bilaterally where possible, and presenting a revised version to the next Annual Meeting.

CMM 12-2017 (Transhipments). The CTC noted differences of interpretation of the transhipment measure, i.e. whether the obligation to undertake transhipments between vessels authorised in the SPRFMO Record of Vessel only applies to transhipments within the Convention Area or whether it has a global scope. The Commission did not come to a conclusion and postponed the matter to the Annual Meeting in 2019. Paragraph 10 was amended accordingly.

CMM 14b-2018 (Exploratory Pot Fishery in the SPRFMO Area) (COMM6-Prop03, Revision 3). Cook Islands presented a revision of its proposal for an exploratory pot fishery in the SPRFMO Area, explaining how they took into account the advice received from the Scientific Committee. The Commission acknowledged that the proposal now met Scientific Committee advice on the fishing effort and the total allowable catch. Taking into account the advice of the Scientific Committee, the Commission adopted the proposal noting that the Cook Islands will present the outstanding information required under CMM 13-2016 and that it was subject to review by the sixth Scientific Committee and the seventh Commission Meeting (ANNEX 7e). The Deep-Sea Conservation Coalition voiced concerns that in its opinion the proposal did not meet the standards required by the SPRFMO measures for the protection of seabirds and for bottom fishing

7. VESSEL MONITORING SYSTEM

The VMS WG, chaired by Mr Luis Molledo (European Union), continued its work during the Commission meeting, focusing on COMM5-Prop01, revision 9 which addresses revisions of CMM 06-2017 (VMS). After clarifying technical details, the Commission adopted the Proposal as CMM 06-2018. The Commission expressed appreciation for the work of Mr Molledo.

In relation to active surveillance operations and/or inspections at sea under paragraph 24(b), Members discussed the merits of the Secretariat being tasked to provide VMS data for the previous 10 days in relation to a vessel detected during surveillance, and /or inspection activities and any other vessels contemporaneously within 100nm of the vessel. A majority of Members supported the inclusion of such a provision, however, divergent views were expressed and there was no consensus in the Commission. In this regard, China stated that it is willing to work with other Members making best efforts to address this matter at the Commission meeting in 2019.

The Commission accepted the advice of the VMS working group on airtime fees as contained in Working Paper 26 (ANNEX 8b) as well as the advice in Working Paper 27 (ANNEX 8a). The Commission adopted the security standards described in Working Paper 28 (ANNEX 8c); the Secretariat offered to review these security standards before the next Annual Meeting in light of their experience. The Commission expressed its appreciation to the Secretariat and CLS for their efforts to operationalise the Commission VMS.

8. SPRFMO OBSERVER PROGRAMME

The Commission recognised the intersessional work of the Observer Programme Working Group and expressed appreciation for the work of Mr Michael Tosatto (United States of America) as the Chairperson. The USA introduced their proposal COMM6-Prop02. The initial discussion addressed some basic points, such as the observer coverage in different fisheries and on reefer or support vessels, as well as the relationship between scientific observation and monitoring and compliance with SPRFMO CMMs. Different views were expressed regarding the possibility of complementing or replacing human observers with other means of observation. Another point of discussion was how to ensure that observer coverage is representative and unbiased, especially in small fleets. In the discussion about accreditation, one Member expressed doubts whether accreditation was necessary. Members queried whether it was necessary to resolve the accreditation process at this meeting. The Commission agreed to progress arrangements for accreditation intersessionally, led by the Chairperson. Members also discussed if a fast-track process was appropriate in the case an observer programme had already been accepted by WCPFC or another RFMO. When adopting COMM6-Prop02, Revision 6, the Commission took note of an intervention by Chinese Taipei that the Scientific Committee could be tasked with studying whether existing observer programmes in other RFMOs could be cross-accredited for SPRFMO.

The Commission adopted a revised version of COMM6-Prop02, (Revision 6, see ANNEX 7f). Some Members expressed concern regarding the wording of paragraph 33, and emphasised that alternative means of observations could not replace human observers.

The European Union generously offered to contribute EUR 100 000 to a SPRFMO observer accreditation process and the Commission gratefully accepted this generous offer.

9. SPRFMO PERFORMANCE REVIEW

The European Union introduced COMM6-Prop14 submitted by the EU and Australia on the first SPRFMO Performance Review. The Commission adopted the proposal (Decision 06-2018, ANNEX 9).

10. ANNUAL REPORT OF THE COMMISSION (Article 29)

The Executive Secretary presented the draft Annual Report (COMM6-Doc03_rev1) for adoption by the Commission. This report addressed relevant decisions by the SPRFMO in 2017 for the purpose of informing the UN and FAO. The Commission agreed to adopt the report (ANNEX 10).

11. FUTURE WORK PROGRAMME OF THE COMMISSION

The Commission reflected on the need for incorporating this item on the agenda every year and suggested that if nothing was proposed for discussion under this item, it might not be necessary to include it next year.

12. OFFICE HOLDERS

a. Appointment of the Executive Secretary

Following the process outlined in paragraphs 16 and 17 of decision 5-2017, Contracting Parties selected Dr Sebastián Rodríguez as the new Executive Secretary and this was confirmed by the Commission. The Commission welcomed and congratulated Dr Rodríguez on his appointment and wished him success in his future role. Dr Rodríguez thanked the Commission for the appointment and confirmed his availability by accepting the position. He assured the Commission of his commitment to work together with everyone in ensuring and achieving the objectives of the Convention and the Commission.

The Commission asked the Chairperson to engage in contract negotiations with Dr Rodríguez on the basis of the contract (Correspondence 216-2017)¹.

The Commission also expressed its gratitude to Dr Johanne Fisher for her commitment and dedication to the organisation and for leading the Secretariat as it grew with the aim of providing Secretariat services more efficiently and effectively. Members collectively thanked Dr Fisher for her efforts and wished her luck in the future.

b. Election of new CTC Chairperson

As the current CTC Chairperson, Ms Jihyun Kim (Korea), was no longer available to perform this task, the current CTC meeting was chaired by Mr Tobias Hanson (Australia). The Commission expressed appreciation to Ms Kim for her contribution to the work of the CTC and thanked Mr Hanson for his work throughout the 5th CTC Meeting. The Commission elected Mr Andrew Wright (New Zealand) as the next CTC Chairperson starting in January 2019. In the meantime, Mr Luis Molledo (European Union), the current Vice-Chairperson of the CTC, will lead the intersessional work until January 2019.

¹ [Terms of Appointment of Executive Secretary](#), member site, restricted

13. OTHER MATTERS

The European Union presented document COMM6-Prop15 to amend Rule 6 of the Rules of Procedure to ensure that in the absence of the Executive Secretary there is appropriate delegation and replacement. The Commission adopted this proposal after minor revisions (Revision 2, see ANNEX 11).

The Comisión Permanente del Pacífico Sur (CPPS) tabled a proposal for a Memorandum of Understanding between the CPPS and SPRFMO (COMM6-Obso3). The Commission decided that the Secretariat, in consultation with the Chairperson, will prepare a draft based on the CPPS proposal and circulate this to the Commission with the aim to preparing a new version for CPPS consideration.

New Zealand informed the Commission that a small group composed of New Zealand, the Chairperson of the Commission, the Vice-Chairperson of the FAC and the Executive Secretary, had started to develop a SPRFMO Code of Ethics and a Conflict Resolution Mechanism will be proposed to the Commission at its next meeting in 2019. The Commission supported this initiative and the Executive Secretary was asked to invite Members who wished to participate in the drafting group.

Peru presented an important initiative called “*The Regional Network to combat IUU Fisheries from Latin American and the Caribbean*”. The initiative was well received by Members of the Commission and they expressed a willingness to collaborate with such a network, encouraging the Secretariat to follow up on Peru’s initiative to cooperate and facilitate the exchange of relevant non-confidential information on fisheries activities and fishing vessels of mutual interest.

14. MEETING REPORT

The draft meeting report was prepared during the meeting by the Chairperson, assisted by the Secretariat, and presented to the Commission on the last day of the meeting for its consideration.

The report was adopted on 03 February 2018 at 23:45hrs.

15. CLOSE OF MEETING

The meeting was closed on 03 February 2018 at 23:45 hrs.

LIST of ANNEXES

1. Agenda
2. List of Participants
3. 2018 SC Workplan
4. Decisions related to Finance and Administration
 - a. Budget for the Financial Year 2018-19
 - b. Financial contributions for the Financial Year 2018-19
 - c. Amendments to the Financial Regulations of the Commission (new budget formula and travel plan)
 - d. Amendments to the Staff Regulations
 - e. Policy for Secondments and Internships
5. Final Compliance Report
6. Final IUU List
7. Amendments to Conservation and Management Measures:
 - a. CMM 01-2018 (*Trachurus murphyi*)
 - b. CMM 02-2018 (Data Standards)
 - c. CMM 03-2018 (Bottom Fishing)
 - d. CMM 06-2018 (VMS)
 - e. CMM 14b-2018 (Exploratory Potting Fishery)
 - f. CMM 16-2018 (Observer Programme)
8. VMS Working Group
 - a. Report of the VMS WG (Working Paper 27)
 - b. Airtime Fees (Working Paper 26)
 - c. Secretariat's Security Standards (Working Paper 28)
9. Decision 06-2018. First SPRFMO Performance Review
10. Annual Report of the Commission
11. Amendments to the Rules of Procedure
12. Statements:
 - a. Welcome speech by the Minister of Producción (Peru), Ms Lieneke Schol
 - b. Welcome speech by the Chairperson of the Commission, Mr Osvaldo Urrutia
 - c. Intervention by Deeps Sea Conservation Coalition
 - d. Intervention by the NZ High Seas Fisheries Group

**6th Meeting of the Commission
Lima, Peru, 30 January to 3 February 2018**

COMM6-Report ANNEX12b: Opening Speech, VI Commission Meeting

(Osvaldo Urrutia, SPRFMO Chairperson)

[Distinguida Ministra de Produccion del Peru, Sra Lieneke Scholl; distinguido Vice Ministro de Pesca del Peru, Sr Hector Soldi; distinguidos congresistas peruanos hoy presentes, distinguished Delegates of Commission's Members, Cooperating NCPs and observers; ladies and gentlemen:]

I am honoured to open the 6th Meeting of the Commission of the South Pacific Regional Fisheries Management Organisation (SPRFMO) here in Lima. I wish to express appreciation to the Government of Peru for hosting this Commission Meeting and for the outstanding support and facilities provided. We are grateful for the wonderful Peruvian hospitality we have been offered, and for the warm people we have met over the Compliance and Technical Committee (CTC) sessions last week.

For this opening speech, I would like to refer to some aspects of our past and present work that are important to bear in mind while we meet up these days under the SPRFMO framework.

Let me start by recalling that, roughly 5 or 6 years ago, the collapse of the jack mackerel fishery to an estimated 5% of the unfished biomass made this fishery one of the most depleted stocks in the world. The lessons we learnt should never be forgotten by the participants to SPRFMO. Please allow me to quote Mr Bill Mansfield, the first Chair of the SPRFMO Commission, who stated in 2013: “a straddling stock cannot be managed sustainably if, in the years in which it is concentrated in the high seas, it is over fished by distant water fleets and, in the years in which it is concentrated in the exclusive economic zones it is over fished by vessels authorized by the coastal states.”

The only possible answer to this tragedy of the commons was, as it is today, meaningful international cooperation. The agreement to collect and exchange relevant information, to accept scientific advice on the state of the jack mackerel fishery and to restrain catches accordingly, lay down the very foundations of this organisation. As you know, the situation of the jack mackerel stock is very different now. Thanks to our committed efforts, the conditions of this stock in the Southeast Pacific show a continued recovery since 2010. Fishing mortality is estimated today to be well below F_{MSY} levels, and Biomass near interim B_{MSY} . Recruitment signs continue to be positive.

This temporary story of success highlights the spirit of cooperation, commitment and responsibility that I believe should continue guiding our present and future actions regarding all the stocks we manage under the SPRFMO Convention, even when they exhibit different condition or status.

After our 5 first years of formal existence, SPRFMO has become a responsible and respected organisation in the international arena. But if we want to maintain and enhance this positive reputation, we need to continue our work. There is still much to do and we have important tasks in the forthcoming years. Our organisation is being watched by the international community, and I believe that our well-deserved reputation will be influenced by how we develop and achieve these tasks ahead.

It is in this context that I can proudly give account of the intersessional activities of the SPRFMO Commission, which explain the priorities our organisation is focussing today after the very positive outcomes of the previous Commission Meeting held in Adelaide, Australia, on January 2017. This work undertaken intersessionally highlights our main challenges for this meeting, and possible for our next years, and I would like to refer to them.

The 5th Meeting of the Scientific Committee was graciously organised and coordinated by China, in Shanghai, from 20 to 28 November, including a workshop on squid and another one on deep-water stocks. It was a big success and I take the opportunity to thank China for hosting that meeting, and also to Mr Jim Ianelli, for his commitment as SC Chair.

The SC adopted a precautionary approach and advised 2018 catches for the entire Jack mackerel range in the southeast Pacific at or below 576.000 tonnes. This is based on a lower fishing mortality than that recommended for 2017. Regarding the squid fishery, the SC and the workshop tackled biology, assessment methods, stock structure issues and research plans. In relation to deep water fishing, including orange roughy, the Scientific Committee looked at new and innovative methods to prevent significant adverse impacts on vulnerable marine ecosystems and methods for data-poor stock assessments. As Mr Gordon Neil, my predecessor as Commission Chair, said last year, it is critical to our Organisation's success that SPRFMO values its scientific advice, and then acts accordingly. I am confident we are on the right path on this.

Under the umbrella of the CTC, our work has continued to advance proposals to agree on an SPRFMO Observer Programme, to streamline our VMS System, and to continue our attempts to upgrade our High Seas Boarding and Inspection Procedure, amongst others. I would like to express my gratitude to the US delegation and in particular to Michael Tosatto for his work on the Observer Programme and the HSBI, and to Luis Molledo from the EU for his leadership in coordinating the VMS discussion, and to all those Members who joined the intersessional work.

Under the Financial and Administrative Committee, we have worked intersessionally on some key aspects of the internal work of our Commission, and particularly in achieving a sustainable budget formula. I would like to thank the current FAC Chair, Ms Kerrie Robertson from Australia, for her leadership in discussing this issue and I urge members to continue discussing and making efforts to reach agreement on this relevant matter, over this meeting.

Some members also worked to develop and table important proposals. The regulation of some of the fisheries we manage has been given high consideration.

Bottom fisheries receive global attention and the sustainability of target species and deep water ecosystems is a key aspect of our work. I am grateful of the efforts made by Commission members and particularly to Australia and NZ, and I am confident that the discussions over this meeting will lead to the adoption of an overall and long-term measure for next year.

Something similar can be said with regards to the squid fishery. True, this stock was not a priority years ago when SPRFMO started as organisation. But the situation now is different, and over the last years SPRFMO has given more importance to this fishery. I would like to highlight that is imperative to avoid the trap of having inconsistent approaches to the regulation of the fisheries stocks we manage under the SPRFMO Convention. I personally envisage that our efforts over the forthcoming years should focus on achieving sustainable, effective and consistent regulations for all our fisheries, including not only jack mackerel but also deep water stocks and squid.

Indeed, there are also other important proposals we will need to discuss and agree upon during these days. I would like to draw your attention that our performance review provides us with that opportunity to review how we are going and make a plan about our next steps. I urge all Members to engage in the proposal tabled by the European Union and Australia.

At this meeting we will have the chance to appoint a new Executive Secretary and to bid a warm and much-deserved farewell to our current Executive Secretary, Mrs Johanne Fisher, and to thank her and her team for their ongoing enthusiasm and commitment to SPRFMO, as well as their personal support to me in my role as Chair. It is true that the Secretariat and a Chair are one of the key partnerships in any RFMO, and in this regard, I can assert my appreciation for our Executive Secretary and the Secretariat staff.

Before closing, I would like to take the opportunity to thank you all personally for your support and advice during this year as Chairperson of the Commission.

With these words, I am pleased to declare the 6th meeting of the SPRFMO Commission open.

Thank you very much.



SPRFMO

Memorandum
to assist the Review Panel
established under Article 17 of the SPRFMO Convention
to consider the Objection by Ecuador
to the Conservation and Management Measure for *Trachurus
murphyi* (CMM 01-2018)

Wellington, 14 May 2018

Mr Osvaldo Urrutia
Chairperson of the Commission

Dr Johanne Fischer
Executive Secretary



Memorandum outline

- Part I provides information on the history and objectives of SPRFMO
- Part II briefly describes the recent history of the Jack mackerel fishery and the conservation and management measures adopted by SPRFMO
- Part III presents the decisions taken by SPRFMO concerning the participation of Members and CNCs in the Jack mackerel fishery
- Part IV clarifies some specific points in the objection submitted by Ecuador
- Part V draws some conclusions

I. Background

1. The 2009 *Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean* established the South Pacific Regional Fisheries Management Organisation (SPRFMO). The Convention entered into force on 24 August 2012 and the First Meeting of the Commission, its governing body, was held in January 2013. Today there are 15 Commission Members (Australia, Republic of Chile, the People's Republic of China, the Cook Islands, Republic of Cuba, Republic of Ecuador, European Union, Kingdom of Denmark in respect of the Faroe Islands, Republic of Korea, New Zealand, Republic of Peru, Russian Federation, Chinese Taipei, the United States of America and Republic of Vanuatu, and four Cooperating Non-Contracting Parties (Colombia, Curacao, Liberia and Panama, hereinafter CNCPs). There are also 21 observer organisations, including NGOs and industry associations.
2. The origin to the Convention can be traced to 2006, when Australia, Chile and New Zealand identified a gap in the conservation and management of non-highly migratory fish stocks in the high seas areas of the South Pacific Ocean. Several States were targeting species in the high seas and in order to ensure the sustainability of these resources and their associated fisheries, an organisation with the competence to establish conservation and management measures was required.
3. As a result, negotiations began with the goal to establish a regional fisheries management organisation that would ensure the long-term conservation and sustainable use of non-highly migratory fish stocks and the marine ecosystems where they occur. Eight rounds of International Consultations were held over 2007, 2008 and 2009 to negotiate the agreement that would establish SPRFMO.¹ All States and fishing entities with a history of fishing in the area to be covered by the new agreement were invited to participate in the negotiations and others joined as the negotiations continued.
4. On 14 November 2009, the 8th International Meeting of the International Consultations adopted the *Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean* (the Convention). The same Meeting also decided that a Preparatory Conference should be convened to make arrangements for the smooth entry into force of the Convention, including the adoption of interim measures, and adopted a resolution to that end.²
5. The Preparatory Conference was convened by New Zealand as the Depositary of the Convention, and three sessions were held from 2010 to 2012. The Final Report of the Preparatory Conference was adopted on 3 February 2012 and was presented to the first meeting of the Commission in 2013, following the entry into force of the Convention.
6. The Commission annual meetings take place in late January or early February and have been hosted by different Members and CNCPs since 2013.
7. In 2018, SPRFMO has in place a comprehensive suite of 16 Conservation and Management Measures (CMMs), six Decisions as well as a complete set of basic texts and various administrative policies and procedures.

¹ 1st Meeting: Wellington, New Zealand, 14-17 Feb 2006; 2nd Meeting: Hobart, Australia, 6-10 Nov 2006; 3rd Meeting: Reñaca, Chile, 30 Apr-4 May 2007; 4th Meeting: Noumea, New Caledonia, 10-14 Sep 2007; 5th Meeting: Guayaquil, Ecuador, 10-14 Mar 2008; 6th Meeting: Canberra, Australia, 6-10 Oct 2008; 7th Meeting: Lima, Peru, 8-22 May 2009; 8th Meeting: New Zealand, 8-14 Nov 2009 (Final Act).

² The functions of the Preparatory Conference are specified in the Resolution Establishing a Preparatory Conference. The sessions were held in: Auckland, New Zealand, 19-23 Jul 2010; Cali, Colombia, 24-28 Jan 2011; Santiago, Chile, 30 Jan-3 Feb 2012 ([Final Report of the Preparatory Conference](#)).

II. *Trachurus murphyi*: Fisheries, stock status and conservation measures

8. The birth of SPRFMO is closely linked to the Jack mackerel (*Trachurus murphyi*) fishery.³

*Trachurus murphyi*⁴ is widespread throughout the South Pacific, but it concentrates in the areas off Chile and Peru, and, to a lesser extent, also Ecuador⁵. The Southeast Pacific Region is the focus of SPRFMO's efforts to manage the species.



Figure 1. Range of *T. murphyi* in the South-Pacific

9. Despite extensive efforts, the Scientific Committee has not come to a common conclusion about the stock structure of Jack mackerel, some assuming that there might be more than one stock.
10. The history of this fishery reflects a commonly found pattern consisting of an initial lack of regulation coupled with growing fishing pressure and resulting in over-exploitation and steep resource decline, which was not stopped by the initial voluntary measures adopted during the negotiations for a South Pacific RFMO. Since the adoption of the Convention in 2009, fishing effort and catches have been drastically reduced and the resource is steadily recovering; in 2018, the biomass is likely to have reached sustainable levels and the species is no longer overfished. The Commission is committed to rebuilding Jack mackerel further to allow it to reach its full potential.

The Jack mackerel fishery

11. In the 1980s large fleets from Russia and other Eastern European countries operated as far west as 130° W. After the economic reforms in the former communist countries around 1990, fishing by these countries in the Southeast Pacific came to a stop. It was not until 2001 that foreign trawlers targeting Jack mackerel re-appeared in the South Pacific high seas.
12. The fishery for Jack mackerel by the coastal States is conducted mainly within their areas of national jurisdiction by purse seiners. In the high seas, Jack mackerel is targeted by a number of distant-fishing fleets of factory trawlers, in recent years primarily China, EU (Lithuania and Netherlands), Korea, Russian Federation and Vanuatu. Chilean and Peruvian catches of Jack mackerel in the high seas are in general lower than their respective catches within the EEZ and show much inter-annual variability.
13. The Jack mackerel fishery is generally mono-specific. In the offshore fishery, the catch consists of 90 to 98% Jack mackerel, with minor by-catch of chub mackerel and Pacific bream.
14. The largest catches of Jack mackerel in the South Pacific are presently taken by Chile in the Chilean EEZ, where the stock is currently concentrated. In the Peruvian and Ecuadorian EEZs, Jack mackerel is part of a mixed pelagic fishery (also targeting anchovy, mackerel and sardines) and catches vary greatly from year to year. Ecuador is located at the northern range limit of Jack mackerel and reports the lowest catches of all coastal States. Ecuador has not reported any Jack mackerel catches for the high seas.

³ There were a number of fisheries for non-highly migratory fish in the high seas of the South Pacific, besides Chilean Jack mackerel (*T. murphyi*), in respect of which no international management agreements existed before the establishment of the SPRFMO. The most important were for (a) pelagic species including squid (jumbo flying squid (*Dosidicus gigas*) in the east and flying squid (*Nototodarus spp*) in the west) and (b) the deepwater fisheries for orange roughy (*Hoplostethus atlanticus*), bluenose (*Hyperoglyphe antarctica*) and others.

⁴ Supporting document 1 (Jack mackerel Summary Species Profile)

⁵ The are remnant Jack mackerel populations in New Zealand from a population expansion in the eighties.

Table 1 Number of vessels fishing in the SPRFMO Convention Area by flag and year

Flag	2012	2013	2014	2015	2016	2017
China	3	2	3	6	2	2
European Union	0	1	2	2	2	2
Korea	2	1	1	2	2	1
Russian Federation	0	0	0	1	0	1
Vanuatu	2	2	2	2	2	0
Chile	9	9	11	26	5	3
Peru	6	1	5	0	0	0
Total	22	16	24	39	13	9

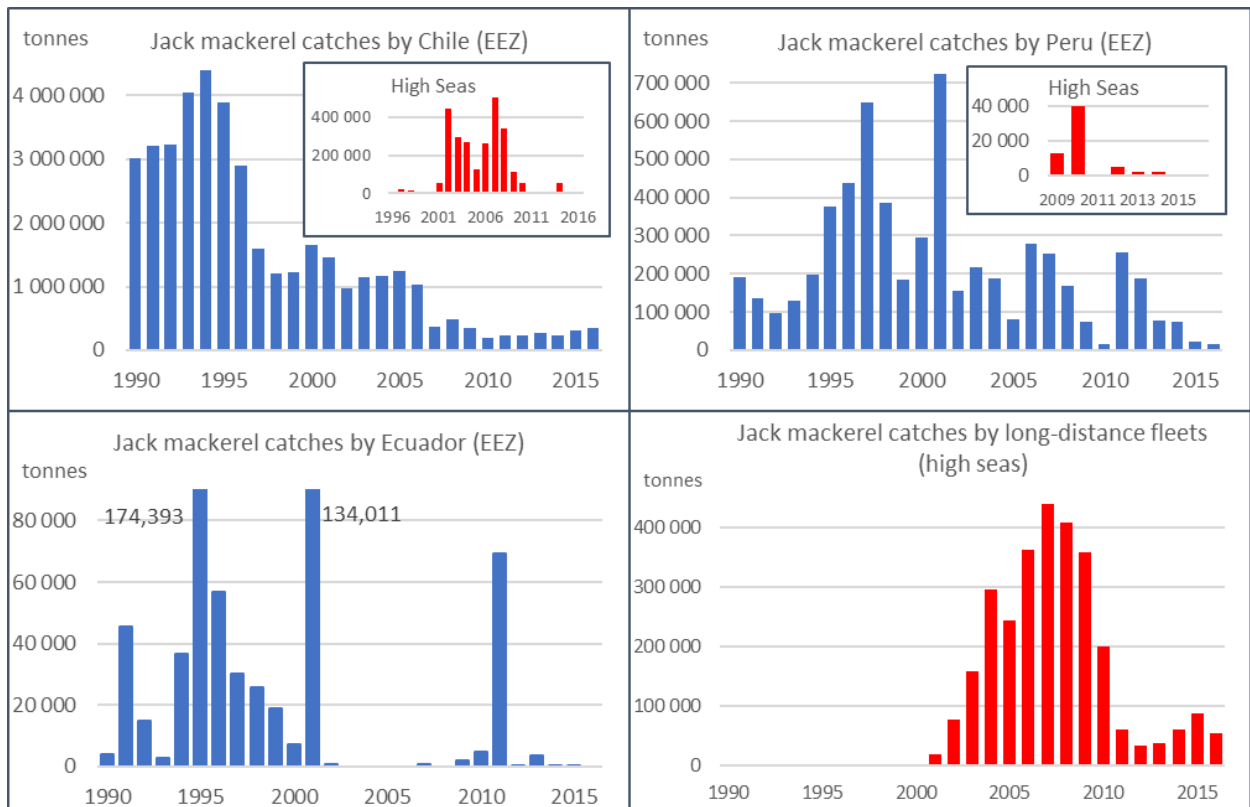


Figure 2. Catches of Jack mackerel in the South Pacific by fleet

The decline and recovery of Jack mackerel

15. Throughout the 1980s, catches of Jack mackerel have steadily increased and reached a peak of about five million tonnes in 1995 (see Figure 3). Subsequently, the coastal countries' catches rapidly declined until 1999, when they stabilised at around 2 million tonnes until 2007. A share of these were caught by distant water fishing countries⁶ who after 2000 entered (or re-entered) the fishery.
16. Participating States and entities of the International Consultations for the establishment of SPRFMO adopted voluntary “*Interim Management Measures*” as early as 2007⁷. The early Interim Measures focused at effort control in the Jack mackerel fishery by adopting a voluntary freeze of the total gross tonnage of pelagic vessels in the high seas for subsequent years. However, in 2008 and 2009, the Interim Measures also allowed the re-entry of States with a relevant catch history, which resulted in an addition of 25 active vessels by 2009, while catches had started and continued to decline

6 These were: Belize, China, European Union, Faroe Islands, Korea, Russian Federation and Vanuatu.

7 Supporting Material No 2, 2007 Interim Management Measures

17. In 2009, the first scientific advice⁸ on the status of Jack mackerel stocks was produced by the Science Working Group (SWG), which was established by the International Consultations. In the absence of agreed stock assessments, the SWG used a comprehensive review of the fishery and other indicators as a basis for advice to the International Consultations. This advice

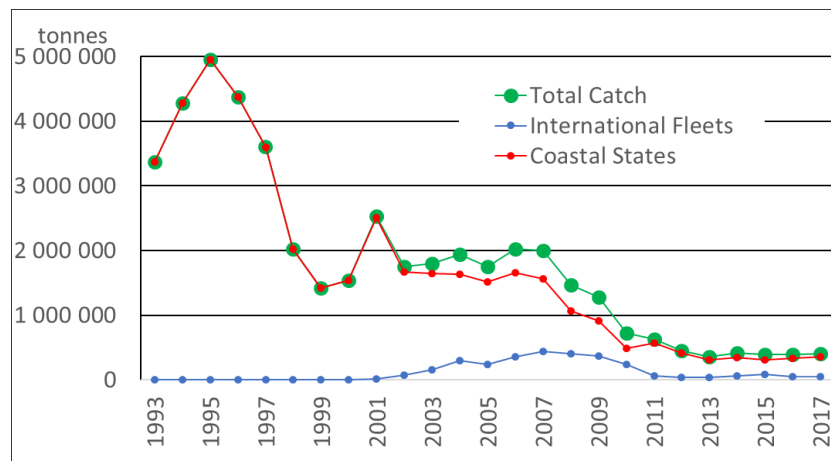


Figure 3. Jack mackerel catches in the South Pacific

- concluded that fishing mortality was likely to have exceeded sustainable levels since at least 2002, and continued to do so. The SWG also predicted that biomass was highly likely to continue declining. Low recruitment, low and declining spawning and total biomass, low and declining spawning biomass per recruit and landings in excess of surplus production all indicated that further declines in stock status were likely unless fishing mortality was reduced, particularly if recruitment remained poor.
18. To stop further declines and re-build the Jack mackerel stock, urgent and adequate measures were required to limit fishing mortality to sustainable levels. In response, the 8th and last meeting of the International Consultations adopted the 2009 Revised Interim Measures⁹ for Pelagic Fisheries whereby participants agreed to voluntarily restrain their catches from 2010 onward to the average levels recorded in 2007, 2008, or 2009.
19. The first proper stock assessment for Jack mackerel by the SWG was carried out at its 9th meeting in October 2010¹⁰. The conclusions were not encouraging:
- Jack mackerel catches had declined steadily since 2006, and continued to decline in 2010. Total biomass had now declined by 79% since 2001 to 2.1 million tonnes (9% - 14% of the virgin biomass), the lowest level in the history of this fishery (at the time).
 - Recruitment from 2005 – 2009 was estimated to be only 30% of the long-term average. Although there was some indication of increased recruitment in 2010, scientists thought that any increase would be slow.
 - There was a very high probability that the biomass would continue to decline if catch levels were not reduced to 50% of the 2010 catches.

Conservation and Management of Chilean Jack Mackerel: recovering the stock

20. In response to this dismal scenario reported by the scientists, the 2nd Meeting of the Preparatory Conference in 2011 adopted stricter Interim Measures for Pelagic Fisheries¹¹, asking that participants limit their 2011 catches of Jack mackerel to 60% of those in 2010.
21. The subsequent stock assessment in 2011¹² resulted in a very similar conclusion as from 2010. On the basis of this advice, in 2012 the Preparatory Conference agreed to a further reduction of catches to 40% of 2010¹³. This was followed by a further decline of catches to a new low of 353 000 tonnes in 2013.

⁸ Supporting Material No 3, 8th SWG report

⁹ Supporting Material No 4, 2009 Revised Interim Measures

¹⁰ Supporting Material No 5, 9th SWG Report

¹¹ Supporting Material No 6, 2001 Interim Measures for Pelagic Fisheries

¹² Supporting Material No 7, 10th SWG Report

¹³ Supporting Material No 8, 2012 Interim Measures for Pelagic Fisheries

22. From 2010 to date, a Jack mackerel stock assessment across the whole range of the stock has been conducted annually, first by the SWG and, beginning 2013, by the Scientific Committee. The stock assessments include fisheries independent and dependent data from each fishing country in a statistical catch-at-age model. Each assessment is included in the annual report of the Scientific Committee submitted to the Commission. Peru and Chile have both adopted the stock assessment model used by the SPRFMO to assess the Jack Mackerel resource within their jurisdictional waters. The assessment estimates have been consistent for a number of years indicating a stable and mature assessment configuration.
23. Since the First Commission meeting, SPRFMO has developed 16 Conservation and Management Measures (CMMs). CMM 01 is dedicated exclusively to the Jack mackerel fishery¹⁴. In addition, Jack mackerel fisheries (as all other SPRFMO fisheries) have to comply with data collection and reporting requirements (CMM02), require an authorisation to fish (CMM 05), and must be equipped with Automatic Location Communicators (ALCs) for the SPRFMO Vessel Monitoring System (VMS) (CMM 06) as well as seabird mitigation devices (for trawlers and demersal longliners, CMM 08). Furthermore, SPRFMO has adopted additional measures such as an IUU Vessel List (CMM 04), inspections in port (CMM 07) and at sea (CMM 11), regulation of transshipment and other transfer activities (CMM 12), measures against vessels without nationality (CMM 15) and the establishment of a compliance and monitoring scheme (CMM 10). The requirements for observers (CMM 16), although adopted, are still in need of further development and the Commission is working on this.
24. The precautionary measures adopted by the SPRFMO Members, including the voluntary interim measures adopted prior to the Convention’s entry into force, have been successful in ensuring that this fishery resource has started to recover. The biomass of Jack mackerel in all of the Southeast Pacific has increased from its lowest level of 1.3 million tonnes in 2010 to around 5.5 million tonnes in 2017. The most recent assessments (SC Report 2017¹⁵) show that for the first time since the 1980s, the Jack mackerel biomass is nearly rebuilt (see Figure 4 and Figure 5). The Scientific Committee advice indicates that this upward trend will continue and predicts an increase of the spawning stock biomass to 7.4 million tonnes in 2018. To ensure the complete rebuilding of the Jack mackerel, it remains imperative that the Commission continues to follow the Scientific Committee’s advice on catch limits.
25. This success was only possible because SPRFMO Members have strictly adhered to the precautionary scientific advice when setting the TAC and made considerable efforts to reduce their catches. The current biomass is expected to support catches of 576 000 tonnes.

Table 2 Jack mackerel advice, TACs and catches since 2011

Year	Scientific Advice (tonnes)	TAC (tonnes)	Reported Catch (tonnes)
2011	711 783	n/a	634 580
2012	520 000	n/a	454 774
2013	441 000	438 000	353 123
2014	440 000	440 000	395 085
2015	460 000	460 000	394 212
2016	460 000	460 000	388 575
2017	493 000	493 000	402 050
2018	576 000	576 000	

¹⁴In the 2017 adopted SPRFMO CMM numbering system, each measure is given a dedicated number (in the case of Jack mackerel, is 01, as noted below) and includes a year reference indicating when the CMM was last amended.

¹⁵ Supporting Material No 9, 5th Report of the Scientific Committee

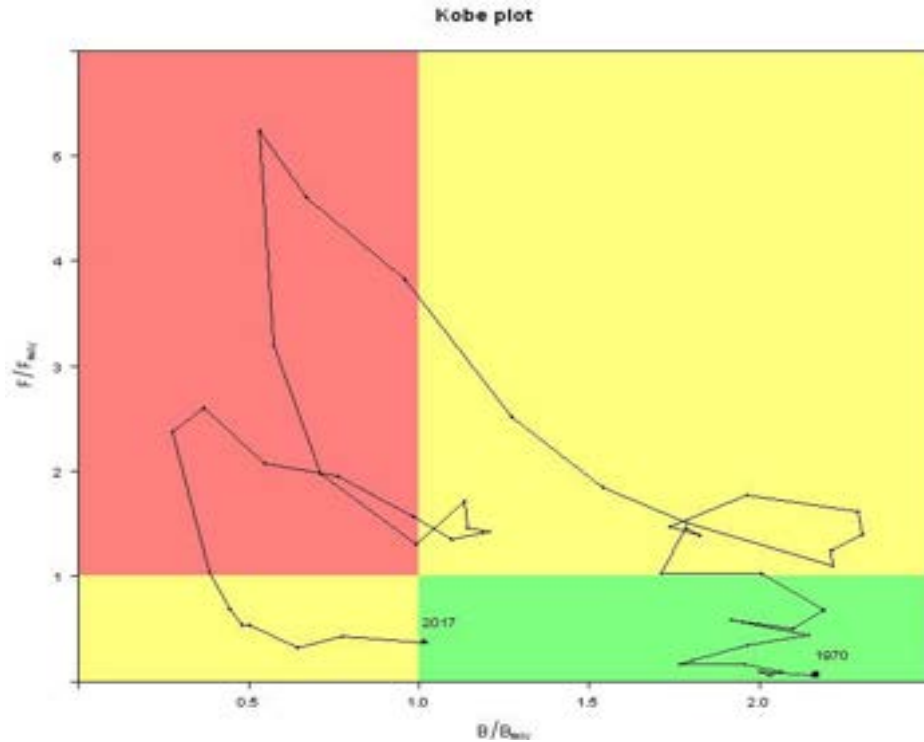


Figure 4. Kobe Plot (from SC advice in 2017). Vertical axis: actual fishing mortality in relation to fishing mortality at MSY. Horizontal axis shows actual biomass relative to biomass at MSY. In 2017 Jack mackerel in the South Pacific are within the green "safe" zone.

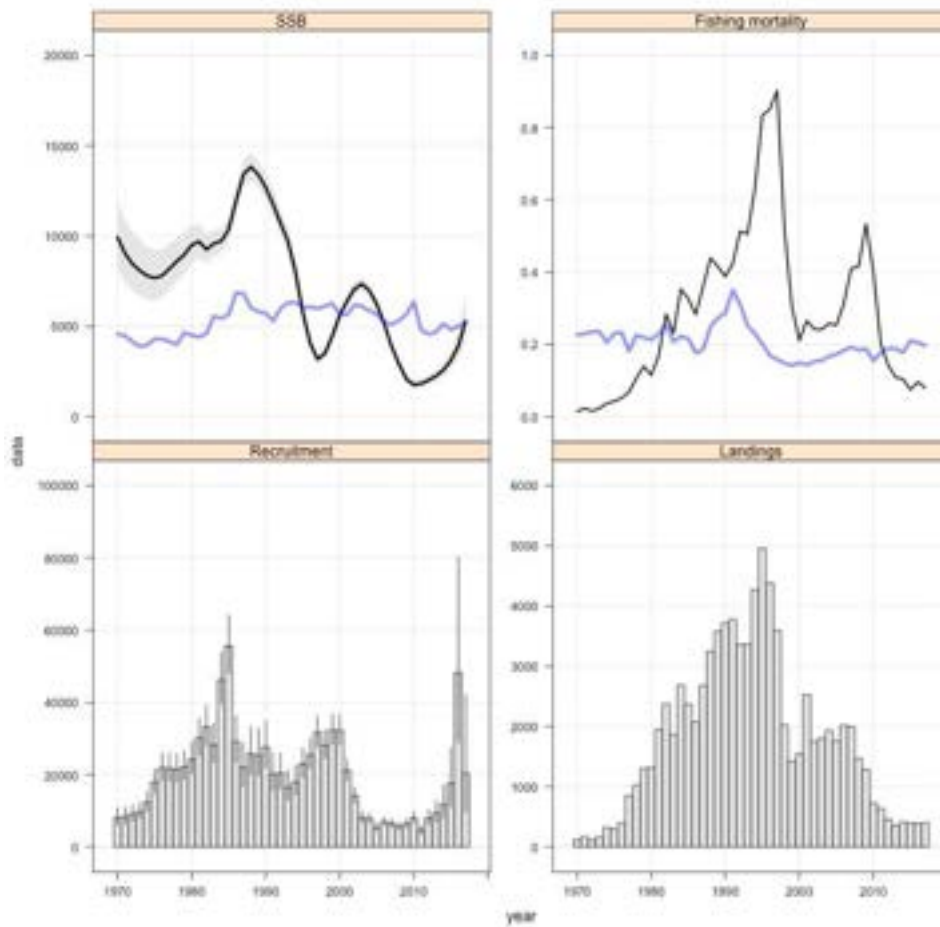


Figure 5. Summary of the 2018 stock assessment of Jack mackerel in the southeast Pacific. Recruitment (age one) is measured in thousands, catch and Spawning Stock Biomass (SSB) in thousands of tonnes, and harvest (fishing mortality) as a rate per year. Note that dynamic values for F_{msy} .

III. Catch entitlements for Jack mackerel

26. CMM 01 is the main SPRFMO measure for Chilean Jack mackerel fisheries and it is annually revised. There are two key issues related to CMM 01 that the Commission considers and decides every year: (a) a total allowable catch (TAC) for the area of application of the Jack mackerel measure (paragraph 1), and (b) its distribution among Members and CNCPs, i.e. the issue of participation in the fishery.

Setting a TAC for Jack mackerel

27. The SPRFMO Convention applies to high seas areas of the South Pacific and does not extend to areas under national jurisdiction. The UN Fish Stock Agreement (Article 7, paragraph 2) requires that straddling stocks should be managed in their entirety and that relevant measures in the high seas and those under national jurisdictions should be compatible with each other. This is reflected in Article 4 and Article 20 of the SPRFMO Convention. Article 4 confirm that SPRFMO adopts the UNFSA principle. Article 20 (paragraph 4) provides that in the case of straddling stocks,
- coastal States can consent that the Commission sets a TAC throughout the range of the fishery resource
 - if not all coastal States consent, the Commission may establish a TAC that will only apply in the areas of national jurisdiction of the consenting coastal State and the Convention Area.
28. In the case of Jack mackerel, Chile is the only coastal State that has consented to a shared TAC with SPRFMO. This is reflected in Paragraph 1 of CMM01-2018:
- “This CMM applies to fisheries for *T. murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCPs) included on the Commission Record of Vessels (CMM 05-2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *T. murphyi* undertaken by Chile in areas under its national jurisdiction.”
29. In this context, Annex III of the SPRFMO Convention is of key relevance. Paragraph 2 provides that the Scientific Committee should assess the status of the straddling fishery resources throughout its range and provide advice to the Commission on an appropriate TAC for the resource throughout the range. Paragraph 4 states that “*In accordance with Articles 16 and 20, the Commission, ..., shall establish a total allowable catch or total allowable fishing effort for the fishery resource throughout its range and adopt appropriate measures to ensure that the total allowable catch or total allowable fishing effort is not exceeded.*”
30. CMM 01, paragraph 10 complements the above and stipulates that “Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *T. murphyi* in 20xx throughout the range of the stock should not exceed xxx tonnes.”

Participation in the Jack mackerel fishery through catch entitlements

31. Article 21 lists the criteria that the Commission shall take into account, to the extent relevant, when taking decisions regarding participation and allocation of the TAC among SPRFMO participants. The SPRFMO Commission has adopted individual catch entitlements for the TAC based on Article 21 since its Second Meeting in Manta in 2014.
32. The allocation exercise relies on cooperation by the States and continued good will and flexibility, particularly while the stock was in significant decline.
33. The next sections will portray the decisions made by SPRFMO concerning the setting of the TAC and participation in the fishery, including the allocation process of 2017. The presentation by chronological order is meant to facilitate the Review Panel’s understanding of the decision-making process.

Auckland 2013: First Commission Meeting

34. At the First Commission Meeting in January 2013¹⁶, the Jack mackerel stock was at very low levels (estimated to be between 8% and 17% of the virgin or unfished biomass¹⁷). The Commission formed a Jack mackerel Working Group under the chairmanship of Gerard Van Bohemen (New Zealand). Following the outcome from the Working Group, the Commission adopted CMM 1.01 (*T. murphyi*)¹⁸, which drew heavily on the previous 2012 Interim Measures for Pelagic Fisheries and also used 2010 catches as its basis for deciding on the distribution of entitlements. The proposed CMM required several sessions to reach agreement.
35. The total catch limit of *T. murphyi* throughout the range of the stock was at 438 000 tonnes. The total catches of *T. murphyi* for the area of application (high seas plus EEZ of Chile) were limited to 360 000 tonnes and shared among five Members (Belize, Chile, EU, Faroe Islands and Korea) and three CNCPs (China, Peru and Vanuatu).
36. Paragraphs 6 and 7 of the measure shed light on the rationale used for the distribution of catch entitlements in 2013:
 6. *“In 2013 the total catch of T. murphyi in the area to which this CMM applies in accordance with paragraph 1 shall be limited to 360,000 tonnes. Members and CNCPs are to share in this total catch in the same proportions as their 2010 catches as reported to the Executive Secretary in the area to which this CMM applies and in the tonnages set out in Table 2.”*
 7. *“However, having regard to the current specific circumstances of the T. murphyi fishery, on a one-off basis 10% of the tonnages set out in Table 2 of Belize, China, European Union, Faroe Islands, Korea, Peru, and Vanuatu are to be transferred to Chile. As a consequence, the catch limits to be applied in 2013 in the areas to which this CMM applies shall be those set out in Table 3.”*
37. CMM 1.01 allowed the transfer of catch entitlement.
38. CMM 1.01 also limited the fishing effort of Members and CNCP to the gross tonnage of vessels flying the flag of that Member or CNCP that were actively fishing in 2007, 2008, or 2009 in the SPRFMO Area. However, and as it will be explained in Part IV of this document, these requirements are no longer relevant for Ecuador and its objection.
39. The CMM stated that Members’ and CNCP’s implementation of and compliance with its provisions as well as with the previous Interim Measures had to be considered when adopting future decisions consistent with Article 21 for *T. murphyi*. It also said that neither CMM 1.01 nor the 2011 and 2012 Interim Measures for pelagic fisheries should be considered as precedents for future allocations.
40. Ecuador¹⁹ did not request nor receive a catch entitlement for Jack mackerel. It made a statement in which it confirmed its commitment for the objectives and principals of the SPRFMO Convention, restated its right to administer fishery management within its EEZ and expressed its future expectation to have access to the pelagic fisheries within the SPRFMO Convention Area.
41. Colombia²⁰ and Peru²¹ also made statements regarding CMM 1.01.
42. CMM 1.01 was adopted by voting with the Russian Federation²² casting a negative vote. After the meeting, the Russian Federation lodged an objection to CMM 1.01, the full outcome of which can be found on the SPRFMO website and on the website of the Permanent Court of Arbitration.

¹⁶ Supporting Material No 10, 1st Report of the SPRFMO Commission

¹⁷ Supporting Material No 11, 11th SWG report

¹⁸ Supporting Material No 12, CMM 1.01 (*T. Murphyyi*)

¹⁹ Supporting Material No 14, COMM 1 Ecuador Statement

²⁰ Supporting Material No 13, COMM 1 Colombia Statement

²¹ Supporting Material No 15, COMM 1 Peru Statement

²² Supporting Material No 16, COMM 1 Russian Federation Statement

Table 3. 2013 limits for Jack mackerel (CMM 1.01)

Participant	Entitlement	% of total
Belize	1 031	0.24
Chile (High seas + EEZ)	249 796	57.03
China	29 256	6.68
European Union	31 046	7.09
Faroe Islands	5 355	1.22
Korea	3 764	0.86
Peru (High seas)	18 636	4.25
Russian Federation	19 944	4.55
Vanuatu	21 116	4.82
Allocated Catch Entitlement	360 000	86.74
Recommended Catch (whole range)	438 000	100.00

Manta 2014: Second Commission Meeting

43. The Second Meeting of the SPRFMO Commission²³ was held in Manta, Ecuador, from 27 to 31 January 2014²⁴. In preparation for the meeting, the Commission Chairperson, Mr Bill Mansfield, circulated two letters regarding a new CMM for Jack mackerel.
44. The first letter²⁵ noted the most recent Scientific Committee advice, recalled the findings of the recent Review Panel with regards to the Russian Federation objection and suggested that the distribution of the overall catch limit should be based on the provisions of Article 21. The 2013 Review Panel that dealt with the Russian objection had confirmed that the distribution of catch entitlements in 2013 was not made in accordance with Article 21 (see paragraphs 65, 66 and 90 of the Findings and Recommendations of the Review Panel, 2013).
45. The second letter²⁶ contained a proposal on a revised CMM for Jack mackerel for consideration of the Commission.
46. Based on these letters and the conclusions of the Review Panel, the Commission decided to review its previous decision regarding participation in the Jack mackerel fisheries in accordance with Article 21. Accordingly, new references were added to the Chapeau of the CMM, highlighting that CMM 2.01 was adopted in accordance with Article 21, in addition to Article 8.
47. The Jack mackerel Working Group under the chairmanship of Gerard Van Bohemen made extensive efforts to achieve a consensus on the Jack mackerel measure CMM 2.01²⁷. However, an agreement could not be reached and again the measure was adopted by a majority vote against the concerns of the Russian Federation²⁸ (8:1).
48. The total catch of *T. murphyi* throughout the range of the stock was not to exceed 440 000 tonnes. The total catch of *T. murphyi* in the Area to which the CMM applies would be limited to 390 000 and shared among seven Members and one CNCP (Peru). It was again stated that the provisions of the CMM were not to be considered a precedent for future allocation decisions.
49. The Commission discussed paragraph 4 of the measure, which relates to the limitation of fishing effort (in terms of gross tonnage by flag), with some Members stating that it had become irrelevant with the introduction of catch limits. This view was not shared by all and the effort clause was retained. As a compromise solution, the table containing the gross tonnage limits (Table 1 of CMM 1.01) was not reproduced but only referenced in CMM 2.01 and subsequent Jack mackerel CMMs.²⁹

²³ Supporting Material No 19, 2nd Report of the SPRFMO Commission

²⁴ Supporting Material No 20, Chairpersons speech at COMM 2

²⁵ Supporting Material No 17, 2013 Intersessional Letter by the SPRFMO Chairperson

²⁶ Supporting Material No 18, 2013 2nd Intersessional Letter by the SPRFMO Chairperson

²⁷ Supporting Material No 21, CMM 2.01 (*T. murphyi*)

²⁸ Supporting Material No 22, 28 March 2014 letter from the Russian Federation

²⁹ Supporting Material No 23, 2014 Intersessional Letter by the SPRFMO Chairperson

Table 4. TAC and catch entitlements of Jack mackerel in 2014

Participant	Entitlement	% of total	% Change
Belize	0		-100
Chile (High seas + EEZ)	290 000	65.91	+16.1
China	27 655	6.29	-5.5
European Union	26 052	5.92	-16.1
Faroe Islands	5 062	1.15	-5.5
Korea	3 580	0.81	-4.9
Peru (High seas)	4 238	0.96	-77.3
Russian Federation	13 445	3.06	-32.6
Vanuatu	19 966	4.54	-5.4
Allocated Catch Entitlement	390 000	88.64	+8.3
Recommended Catch (whole range)	440 000	100.00	+0.5

50. Chile³⁰, Peru³¹, Ecuador³² and the Russian Federation³³ all made statements during the meeting. Ecuador again confirmed its commitment to SPRFMO and reiterated its rights and its expectation of future access to the SPRFMO fisheries. Ecuador also informed the meeting that it was currently completing its internal processes that would lead to full membership.

Auckland 2015: Third Commission Meeting

51. The Third SPRFMO Commission Meeting³⁴ was held in Auckland, New Zealand, from 2 to 6 February 2015. The Chairperson, Mr Bill Mansfield, made an opening speech³⁵ referring to the collapse of the Jack mackerel fishery and the recent Scientific Committee advice that indicated biomass had slightly increased.
52. The Commission adopted CMM 3.01³⁶ (*T. murphyi*) by consensus and, consistent with the scientific advice, agreed that the catches of *T. murphyi* throughout its range should not exceed 460 000 tonnes, effectively an increase of 20 000 tonnes in comparison with 2014. The Jack mackerel Working Group focused only on the distribution of the additional catches, leaving the previous entitlements intact. Negotiations still proved difficult and agreement was only reached late during the meeting.
53. The catch of *T. murphyi* in the area of application of the Jack mackerel CMM was limited to 410 000 and shared among seven Members and two CNCPs, the latter being Ecuador and Peru. The CMM was scheduled to be reviewed by the Commission in 2016.
54. Chile recorded its view that Table 1 in CMM 3.01 should also record the percentage of TAC for each entitlement. However, this idea did not find general agreement in 2015.
55. Table 5 shows that Korea, Peru and the Russian Federation were able to increase their share of the overall catch limit. Korea was active and had been in danger of over-catching its allocation, which it avoided by closing its fishery on 19 August and by receiving a quota transfer from Vanuatu. Peru³⁷ requested a high seas entitlement increase due to the exclusion of the 2010 year (when Peruvian had high catches) from the relevant catch history being used for the allocation exercise. The Russian Federation requested that its limit increase more in line with the 2013 Review Panel decision and felt concerned about the exclusion of the 2010 year.

³⁰ Supporting Material No 24, COMM 2 Chile position paper

³¹ Supporting Material No 25 and No 26, COMM 2 Peru position paper and Statement

³² Supporting Material No 27, COMM 2 Ecuador Statement

³³ Supporting Material No 28, COMM 2 Russian Federation Statement

³⁴ Supporting Material No 29, 3rd report of the SPRFMO Commission

³⁵ Supporting Material No 30, COMM 3 Chairpersons Speech

³⁶ Supporting Material No 31, CMM 3.01 (*T. Murphyyi*)

³⁷ Supporting Material No 33, COMM 3 Peru Statement

56. The share of Chile and the Faroe Islands decreased. The Faroe Islands had not been active in the fishery since 2010 and had not conducted any transfers. In the case of Chile³⁸, the one-off 10% transfer that it received from other members in 2014 was no longer applicable.

Table 5. 2015 Catch limits for Jack mackerel (CMM 3.01) including percent change

Participant	Entitlements	% of total	% Change
Chile (High seas + EEZ)	297 000	64.57	+2.4
China	29 200	6.35	+5.6
Ecuador (High seas)	1 100	0.24	+100
European Union	28 100	6.11	+7.9
Faroe Islands	5 100	1.11	+0.8
Korea	5 500	1.20	+53.6
Peru (High seas)	7 400	1.61	+74.6
Russian Federation	15 100	3.28	+12.3
Vanuatu	21 500	4.67	+7.7
Allocated Catch Entitlement	410 000	89.14	+5.1
Recommended Catch (whole range)	460 000	100.00	+4.6

57. At this meeting, Ecuador announced its imminent accession to the Convention and requested a high sea's catch entitlement. The Commission agreed to allocate 1 100 tonnes to Ecuador. Ecuador asked that each Member consider transferring to Ecuador 200 tonnes of its allocation to assist Ecuador's entry into the high seas fishery. However, during the following half year there were no transfers of catch entitlement to Ecuador and on 24 August 2015, Ecuador transferred its entire entitlement to Chile.

Valdivia 2016: Fourth Commission Meeting

58. The Fourth Commission Meeting³⁹ was held in Valdivia, Chile, from 25 to 29 January 2016. The Chairperson, Mr Gordon Neil (Australia) made a speech⁴⁰ referring to the cooperative spirit that the organisation had demonstrated in the past and a key task of agreeing on the allocation of catch consistent with the scientific advice to restrict catch to current levels.
59. Consistent with the Scientific Committee's recommendation on the *T. murphyi* catch limit, the Commission decided to adopt for 2016 the same TAC as was decided in 2015.
60. The Commission adopted CMM 4.01⁴¹ (*T. murphyi*). As in 2015, the catch limit for *T. murphyi* throughout its range should not exceed 460,000 tonnes. As was agreed in 2015, the total catch of *T. murphyi* in the area of application of the CMM was limited to 410,000 tons and shared among nine members of the Commission. The Commission also adopted amendments to clarify arrangements for quota transfers.
61. Peru, Ecuador and Cuba explained their circumstances and their expectation to have an increased allocation in future years. In 2015, Ecuador participated for the first time as a Member of the Commission. As a coastal State and a Member, Ecuador⁴² reaffirmed its willingness to actively participate in the organization and its objectives. It also announced its intent to register vessels for the exploitation of Jack mackerel in the Convention Area and its keen interest in higher catch entitlements so that it could exercise its right to harvesting these resources.
62. CMM 4.01 included a review clause requiring (as in previous years) that at the next meeting the Commission consider the latest advice of the Scientific Committee and the Compliance and Technical Committee as well as the extent to which the current and past Jack mackerel CMMs, and the Interim Measures for Pelagic Fisheries, have been complied with.

³⁸ Supporting Material No 32, COMM 3 Chile Statement

³⁹ Supporting Material No 34, 4th Report of the Commission

⁴⁰ Supporting Material No 35, COMM 4 Chairpersons speech

⁴¹ Supporting Material No 36, CMM 4.01 (*T. murphyi*)

⁴² Supporting Material No 37, COMM 4 Ecuador Statement

63. On 13 June 2016 Ecuador transferred its entire 2016 allocation of 1,100 t to Chile.

Table 6. 2016 Catch limits for Jack mackerel (CMM 4.01) including percent change

Participant	Entitlements	% of total	% Change
Chile (High seas + EEZ)	297 000	64.57	0
China	29 200	6.35	0
Ecuador (High seas)	1 100	0.24	0
European Union	28 100	6.11	0
Faroe Islands	5 100	1.11	0
Korea	5 500	1.20	0
Peru (High seas)	7 400	1.61	0
Russian Federation	15 100	3.28	0
Vanuatu	21 500	4.67	0
Allocated Catch Entitlement	410 000	89.14	0
Recommended Catch(whole range)	460 000	100.00	0

Adelaide 2017: Fifth Commission Meeting

64. The Fifth Commission Meeting⁴³ was held in Adelaide, Australia from 18 to 22 January 2017. In his opening speech⁴⁴, the Chairperson, Mr Gordon Neil (Australia), highlighted the progress made in rebuilding the Jack mackerel stock and predicted important discussions on the allocation of the Jack mackerel catches.
65. As recommend by the Scientific Committee, the Commission set a catch limit for *T. murphyi* of 493 000 tonnes throughout its range. For the area of application of the measure, CMM 01-2017⁴⁵ (*T. murphyi*) set the TAC at 443 000, which was distributed among 10 Members (11 counting the Cook Islands, who had asked for allocation of “0” in the table to reflect their interest in a future allocation).
66. Ecuador was not represented at COMM 5 due to a recent earthquake and resulting emergency state in the country (*force majeure* problems). However, Ecuador sent a letter⁴⁶ on 20 January 2017 which was read aloud and made available during the meeting. In it, Ecuador expressed that it was timely to review the distribution of quotas as the stock was in a healthy state and reiterated its earlier request for an annual quota of 10 000 tonnes to allow them to develop a viable high seas fishery.
67. The Commission adopted CMM 01-2017⁴⁷ (*T. murphyi*) after convening a Working Group, chaired by Mr. Frank Meere⁴⁸ (Australia). The Working Group addressed the allocation of the additional 33 000 tonnes of catch recommended by the Scientific Committee and endorsed by the Commission. This process was undertaken in accordance with Article 21 of the Convention.
68. Mr Meere reported to the Commission that participants had considered Ecuador’s and Peru’s existing allocations and their requests for additional quota which they considered appropriate to reflect their new status as Commission Members. In addition, the Working Group addressed a request from Cuba for a first-time entitlement in 2017, and a request from Cook Islands to record their interest for a future entitlement.
69. Cuba, Peru and Korea were all able to increase their share of the overall catch limit, while Chile’s allocation share decreased. Cuba was a new entrant into the fishery and was allocated the same amount as Ecuador had received in 2015. Peru pressed its case⁴⁹ for an increased high seas catch limit due to the inequities in earlier decisions and its participation

⁴³ Supporting Material No 40, 5th Report of the SPRMO Commission

⁴⁴ Supporting Material No 41, COMM 5 Chairpersons speech

⁴⁵ In 2017, the Commission adopted a new numbering system for CMMS and Decision

⁴⁶ Supporting Material No 42, COMM 5 Ecuador Letter

⁴⁷ Supporting Material No 43, CMM 01-2017 (*T. murphyi*)

⁴⁸ Supporting Material No 38 & 39, 2016 Intersessional letter by the SPRFMO Chairperson & Peru’s reply

⁴⁹ Supporting Material No 44, COMM 5 Peru Statement

in the high seas fishery from 2009 until 2014. Korea reiterated its problems with the size of its allocation and made reference to its active participation in the fishery and positive record of compliance. Chile agreed to a one-off transfer of 1 000 tonnes to Korea to assist with its difficulties.

70. Importantly, the Jack mackerel CMM 01-2017 included a new table containing percentage entitlements intended to be maintained for the following four years (until 2021).
71. CMM 1-2017 again stated that the measure would be reviewed annually by the Commission and would take into account the latest advice of the Scientific Committee and the Compliance and Technical Committee as well as the extent to which the current and past Jack mackerel CMMs, and the Interim Measures for Pelagic Fisheries, have been complied with.
72. On 24 May 2017 Ecuador transferred its entire 2017 allocation of 1,179 t to Chile.

Table 7. 2017 Catch limits for Jack mackerel (CMM 01-2017) including percent change

Participant	Entitlements	% of total	% Change
Chile (High seas + EEZ)	317 300	63.36	+6.8
China	31 294	6.35	+7.2
Cook Islands	0	0.00	0
Cuba	1 100	0.22	+100
Ecuador (High seas)	1 179	0.24	+7.2
European Union	30 115	6.11	+7.2
Faroe Islands	5 466	1.11	+7.2
Korea	7 321	1.48	+33.1
Peru (High seas)	10 000	2.03	+35.1
Russian Federation	16 183	3.28	+7.2
Vanuatu	23 042	4.67	+7.2
Allocated Catch Entitlement	443 000	88.85	+8.0
Recommended Catch (whole range)	493 000	100.00	+7.2

Lima 2018: Sixth Commission Meeting

73. The sixth Commission Meeting⁵⁰ was held in Lima, Peru from 30 January to 3 February 2018. The Chairperson, Mr Osvaldo Urrutia (Chile), made an opening speech⁵¹ in which he highlighted the efforts by SPRFMO Members that led to the continuing recovery of the Jack mackerel stock.
74. In view of the fixed percentages contained in CMM 01-2017, it was agreed that a Jack mackerel Working Group meeting was not necessary during this meeting. The Chairperson asked Chile to prepare a working paper that would ultimately become the new Jack mackerel measure. The purpose of this document was to adopt a new catch limit throughout the entire range consistent with the advice from the Scientific Committee and to apply the percentages agreed in CMM 1-2017 to derive the new catch entitlements. This document was introduced by Chile as Working Paper (WP) 11, entitled “Chile edits to CMM01-2017 (Jack mackerel)”.
75. Ecuador had not presented a formal proposal to amend or modify the Jack mackerel measure within the deadlines stipulated by the SPRFMO Rules of Procedure of the Commission (Rule 4 paragraph 5)⁵². However, during the meeting, Ecuador requested a catch entitlement of 1.13% of the total catch limit, which in 2018 corresponded to 6 500 tonnes. Ecuador also made a presentation⁵³ explaining its reasons for this request. The Commission did not agree to Ecuador’s request.

⁵⁰ Supporting Material No 45, 6th Report of the SPRFMO Commission

⁵¹ Supporting Material No 46, COMM 6 Chairpersons speech

⁵² Supporting Material No 47, SPRFMO Rules of Procedure (COMM 3 version)

⁵³ same presentation attached by Ecuador to its objection

76. CMM 01-2018⁵⁴ was adopted by voting with Ecuador casting a negative vote (13-1).
77. On 27 February 2018 Ecuador transferred its entire 2018 allocation of 1,377 t to Chile.
78. Subsequent to the 6th Commission Meeting, on 29 of March 2018, Ecuador presented the Executive Secretary with an objection to CMM 01-2018 in accordance with Article 17 paragraph 2(a) of the Convention.

Table 8. 2018 Catch limits for Jack mackerel (CMM 01-2018) including percent change

Participant	Entitlement	% of total	% Change
Chile (High seas + EEZ)	371 887	64.56	+17.2
China	36 563	6.35	+16.8
Cook Islands	0	0.00	0
Cuba	1 285	0.22	+16.8
Ecuador (High seas)	1 377	0.24	+16.8
European Union	35 186	6.11	+16.8
Faroe Islands	6 386	1.11	+16.8
Korea	7 385	1.28	+0.9
Peru (High seas)	11 684	2.03	+16.8
Russian Federation	19 907	3.28	+16.8
Vanuatu	26 921	4.67	+16.8
Allocated Catch Entitlement	517 582	89.85	+16.8
Recommended Catch(whole range)	576 000	100.00	+16.8

The Vanuatu proposal

79. In 2017, Vanuatu submitted a proposal⁵⁵ to the 5th Commission meeting that sought to implement a mechanism that would promote the full utilisation of Jack mackerel catch limits (quotas) among members while potentially providing new fishing opportunities for members with low or no Jack mackerel catch quotas.
80. The purpose of this proposal consisted in achieving increased utilization of quotas and providing fishing opportunities for new entrants. This was important in view of the aspirations of some Members to commence or increase their fishing activity for Jack mackerel on the high seas, while the entitlements of other Members were not being fully utilised.
81. Recognising that annual re-negotiation of the Jack mackerel catch quota distribution is extremely difficult, time consuming and an exercise that creates ongoing uncertainty among the fishing industries of members, the Commission took a decision to maintain the percentage shares of members of the Jack mackerel catch limits as a basis for the allocation for a period of five years (CMM 01-2017). Because this decision would interact with the Vanuatu, it was agreed that further consideration was needed prior to submitting a revised version to the 6th Commission meeting.
82. The revised Vanuatu proposal⁵⁶ submitted to the 6th Commission meeting in Lima sought to change the percentage shares of members under certain circumstances. Specifically, if a member failed to reach a threshold level of utilisation of its quota, achieved by either fishing or transferring its quota to other members, it would forfeit any increase in its entitlement in case the TAC was raised. The forfeited quota would be available for redistribution by the Commission to members with little or no Jack mackerel quota.
83. After gaining general support in the Commission, the Vanuatu proposal was withdrawn to allow one member additional time for adjusting its internal procedures in preparation of such an additional procedure. The Commission requested Vanuatu to submit the proposal to the 7th Commission meeting.

⁵⁴ Supporting Material No 48, CMM 01-2018 (*T. murphyi*)

⁵⁵ Supporting Material No 49, COMM5_Prop01 Vanuatu proposal

⁵⁶ Supporting Material No 50, COMM6_Prop04_rev1 Vanuatu proposal

IV. Some clarifications concerning the objection presented by Ecuador

Summary of the Participation of Ecuador in SPRFMO

84. Ecuador participated in the consultative process beginning with the 3rd meeting in 2007 and attended the first two Preparatory Conference sessions in 2010 and 2011. It has attended all meetings of the Commission, except in 2017. It first attended the Commission meetings as an Observer State in 2013 and then hosted the 2014 Commission meeting in Manta whilst still a CNCP. It acceded to the Convention on 11 May 2015 and obtained full Membership of the Commission on 10 June 2015 prior to the 4th Commission meeting that was held in Chile.
85. Scientists from Ecuador have participated in every Scientific Committee Meeting and Ecuador has always fulfilled its financial obligations in accordance with Article 15 of the Convention.
86. Ecuador received its first entitlement to catch Jack mackerel (1 100 tonnes) as a CNCP at the third Commission meeting in 2015. Its current allocation for 2018 is 1 377 tonnes (0.2391% of total).

Table 9. Catch entitlement transfers from Ecuador

CMM	Initial allocation	Transfer recipient	Date of request
3.01	1 100	Chile	24 August 2015
4.01	1 100	Chile	13 June 2016
01-2017	1 179	Chile	24 May 2017
01-2018	1 377	Chile	27 February 2018

Effort management in the Jack mackerel CMM

87. On page 4 of the presentation “*Proposal by Ecuador to develop JUREL fishing in the area of the SPRFMO Convention*”, Ecuador suggests that the effort allocation for Belize in Table 1 of the first Jack mackerel CMM 1.01 should be transferred to Ecuador. Ecuador attached this presentation to its objection.
88. Table 1 of the 2013 CMM 1.01 contains gross tonnage limits by flags that continue to be valid in all subsequent Jack mackerel CMMs.
89. Two Members who received catch entitlements after 2013 were not considered in Table 1 of CMM 1.01: Ecuador (since 2015) and Cuba (since 2017). The Commission had created a situation where two Members had entitlement to fish but were not allowed to undertake actual fishing operations in the SPRFMO Area due to a lack of gross tonnage allowances.
90. Given this scenario, the Commission amended the text of the CMM in 2017 by adding the word "Relevant" at the beginning of paragraph 4 of the new CMM 1-2017 on Jack mackerel (retained in CMM 01-2018). It now read: "Relevant Members and CNCPs shall limit the total gross tonnage (GT) of vessels flying their flag and participating in the fishing activities (...)". “Relevant” here is intended to refer to flags specifically mentioned in Table 1 of CMM 1.01, meaning that Ecuador and Cuba do not have any restrictions on their gross tonnage.

On the alternatives measures proposed by Ecuador. There is no “reserve”

91. According to Article 17 paragraph 2 (b) (ii) of the SPRFMO Convention, Ecuador has proposed alternative measures to the objected measure, in particular that the “*the capture capacity in 2018 of the T. murphyi resource in the area of the convention, to which this MMC is applied in accordance with section 1, will be limited to 522,705 tn*”. Ecuador then added: “*Proceeding the increase of 5,123 tons of the reserve that maintains the convention based on the amount recommended by the Scientific Committee of September 2017 in point*”

5.4, numeral 52 that talks about the status of the Jack mackerel stock in the SCO5 report (Shanghai, China Sept 2017) being the recommended amount of 576,000 tons, of which discounted the current assigned amount of 517,582, leaves a reservation in the Convention of 58.218 tons” (page 7 of Ecuador’s objection text).

92. The “reserve” mentioned by Ecuador is not a reserve. As a general rule, the SPRFMO Convention and CMMs only apply to areas beyond national jurisdiction. With the express consent of the coastal State Contracting Party, the Commission may –in accordance with Annex III of the Convention– establish a TAC that will apply throughout the range of the fishery. As Chile consents to this but Ecuador and Peru do not, the Commission adopts a TAC for areas beyond national jurisdiction and the EEZ of Chile, which is referred to as “the area to which this CMM applies in accordance with paragraph 1” (paragraph 5 of CMM 01-2018). Therefore, the 58 418 tonnes not included in the area of application refers by implication to the EEZs of Ecuador and Peru.

V. Conclusions

93. This memorandum has provided the Review Panel with a detailed factual account regarding the decisions adopted by the SPRFMO Commission on the Jack mackerel fishery and the subsequent allocation of the TAC. The information provided addresses the requests made by the Panel on part 2.2. of Procedural Directive 1, of 30 April 2018. It is for members of the SPRFMO Commission to present their views on the questions posited by the Panel in part 2.1. of the Procedural Directive, and for the Panel to assess and eventually recommend on Ecuador’s claims of discrimination and inconsistency of CMM 1-2018.
94. Specifically, this memorandum has:
- a) explained the most relevant aspects of the Jack mackerel fishery in the South Pacific and given context to SPRFMO as regional fisheries management organisation.
 - b) presented an objective account of the changes and status of the Jack mackerel stock, including the critical condition it reached, the measures taken in this regard by SPRFMO and its incipient recovery.
 - c) described the measures adopted by SPRFMO concerning the participation in the Jack mackerel fishery, showing the outcomes of the negotiations since the first SPRFMO Commission meeting in 2013.
 - d) introduced the efforts made by the SPRFMO Commission to find adequate mechanisms to promote the utilisation of Jack mackerel catch limits (often referred to as “quotas” by SPRFMO Members) among Members while potentially providing new fishing opportunities for members with low or no Jack mackerel catch entitlements.
 - e) presented Ecuador’s participation in SPRFMO, from the beginning of the International Consultations to the last meetings of the SPRFMO Commission. It has described Ecuador’s requests for an allocation increase. As this memorandum records, Ecuador has always transferred its catch entitlements to Chile.
 - f) clarified some of the assertions made by Ecuador and explained why there is no “reserve” as such in the amount of 58 418 tonnes that are not included in the TAC for the area to which the CMM 01-2018 applies.
95. The Chairperson of the Commission and the Executive Secretary remain willing to provide additional information and to answer further questions the Review Panel may have.

SPRFMO 6TH COMMISSION MEETING	
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Document title: WP11 Chile edits to CMM01-2017 (Jack mackerel)	
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Doc number: WP11	ORIGINAL
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Date and time: 4:22pm 30Jan2018	Revision: 0
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Submitted by: Chile	Save as:
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CMM 01-~~2017~~2018¹

Conservation and Management Measure for *Trachurus murphyi*

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on ~~29-23 to 28~~ September ~~to 3~~ ~~October~~ of ~~2016-2017~~ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

GENERAL PROVISIONS

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *Trachurus murphyi* undertaken by Chile in areas under its national jurisdiction.
2. Only fishing vessels duly authorized pursuant to Article 25 of the Convention and in accordance with CMM 05-2016 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

EFFORT MANAGEMENT

4. Relevant Members and CNCs shall limit the total gross tonnage (GT)² of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect

¹ CMM 01-2017 (*T. murphyi*) supersedes CMM 4.01 (*T. murphyi*) and previously 3.01, 2.01 and 1.01.

² In the event that GT is not available, Members and CNCs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

CATCH MANAGEMENT

5. In ~~2017~~2018 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to [~~443-517 000~~582] tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the Flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2017 throughout the range of the stock should not exceed ~~493-576~~ 000 tonnes.

DATA COLLECTION AND REPORTING

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2017 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
13. Except as described in paragraph 11 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2017 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

15. [Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM ~~02-2017~~ (Data Standards VMS) and other relevant CMMs adopted by the Commission.] ~~These VMS data shall be provided to the Executive Secretary within 10 days of each quarter in the format prescribed by the SPRFMO Data Standards and using the templates on the SPRFMO website.~~
16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels³ they have authorized to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2016 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2017 (Data Standards).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the ~~2017-2018~~ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the ~~2017-2018~~ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the ~~2017-2018~~ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
19. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2017 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its ~~Workplan (2017)~~ SC Multi-annual workplan (2018) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
- (a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - (b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.

³Fishing vessels as defined in Article 1 (1)(h) of the Convention.

22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for vessels flying their flag and ensure that such observers collect and report data as described in CMM 02-2017 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

COOPERATION IN RESPECT OF FISHERIES IN ADJACENT AREAS UNDER NATIONAL JURISDICTION

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

SPECIAL REQUIREMENTS OF DEVELOPING STATES

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

REVIEW

25. This Measure shall be reviewed by the Commission in ~~2018~~2019. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), ~~and~~ CMM 4.01 (*Trachurus murphyi*, 2016) and CMM 01-2017 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20 paragraph 4(c) of the Convention and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.

Table 1: Tonnages in ~~2017-2018~~ fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	371 887 <u>373 173</u> 00
China	36 563 <u>33 294</u>
Cook Islands	00
Cuba	1 285 <u>1 100</u>
Ecuador (HS)	1 377 <u>1 179</u>
European Union	35 186 <u>30 115</u>
Faroe Islands	6 386 <u>5 466</u>
Korea	7 385 <u>7 321</u>
Peru (HS)	11 684 <u>10 000</u>
Russian Federation	18 907 <u>16 183</u>
Vanuatu	26 921 <u>23 042</u>
Total	443 517 <u>000 582</u>

Table 2: Percentages⁴ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

⁴ These percentages shall apply from 2018 to 2021 inclusive.

6th Meeting of the Commission
Lima, Peru, 30 January to 3 February 2018

COMM 6 – PROP 04_rev1
Proposal to Amend CMM 10-2017 on Jack Mackerel
Vanuatu

Conservation and Management Measure for *Trachurus murphyi*

Jack Mackerel Fishery Incentive Proposal

Vanuatu

During the 5th Commission meeting Vanuatu presented a proposal entitled Interim Allocation of Jack Mackerel Quotas ([COMM5-Prop01](#)). The meeting agreed that the proposal had merit but that more consideration needed to be given to its possible interaction with existing decisions. Members were encouraged to work inter-sessionally to address these issues.

The purpose of this revised proposal remains to:

1. Promote increased utilization of quotas; and,
2. Provide fishing opportunities for Members or CNCPs with low or zero quota allocations.

The proposal would be first implemented in 2022 using catch and transfers data in 2021 to calculate national utilization rates.

Main Elements of the Proposal

1. Establish a minimum annual utilization threshold of quota that, if not reached, would lead to that member not being entitled to share in any increase in the TAC in the following year.
2. The minimum annual utilization threshold would comprise both catches and quota transfers. For example, if a member transferred all of its uncaught annual allocation it would achieve 100% utilization.
3. The minimum annual utilization standard to be set at a level of 70% of the weighted average utilization of quotas by all members fishing for jack mackerel during the year that is 2 years before the annual meeting.
4. If a member fails to achieve the minimum utilization standard then the catch limit of that member would remain at the current level rather than increasing in line with any increase in the TAC in the following year.
5. The forfeit amount of quota would be assigned by the Commission to other member states with no or very low allocations or CNCPs.

Draft Revisions to CMM 01-2017

9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.

9 bis. Beginning in 2021, for the purpose of being entitled to an increase in tonnage set out in Table 1 for the following year, Members shall reach a certain minimum annual utilisation level (annual threshold).

9 ter. This annual threshold shall be 70% of the weighted average utilisation level of catch limits in Table 1 by all Members during the calendar year beginning two years before the annual meeting.

9 quater. The annual threshold will be calculated taking into account the sum of each Member catches and quota transfers to other Members, irrespective of whether the transferred amount is fully caught. A quota transfer received from other Members will be added to the Member's initial catch level for the purpose of calculating the annual threshold.

9 quinquies. If there is an increase in the total allowable catch, Members not reaching the annual threshold shall not receive an increase in their quotas in Table 1 during that annual meeting. The tonnage of that Member would remain unchanged. Any increase in tonnage that would have otherwise been allocated to such Members may be assigned by the Commission to Members or CNCPs without an entitlement in Table 1, or to Members with very low entitlements.

9 sexies. All relevant information concerning the annual threshold and each Member and CNCP's final catch and transfer figures will be provided to all Members and CNCPs by the Secretariat prior to the annual meeting.



Amendments to the Rules of Procedure

The Commission adopted amendments to Rules of Procedure 4 and 5.

Rule 4

ORDER OF BUSINESS

1. A provisional agenda for each annual or special meeting of the Commission, or any of its subsidiary bodies, shall be prepared by the Executive Secretary in consultation with the Chairperson. It shall be transmitted by the Executive Secretary with the invitation sent in accordance with Rule 3 and any relevant documents to all Official Contacts referred to in Rule 2.2 and to observers referred to in Rule 9.
2. Any Member of the Commission, the Chairperson, or the Executive Secretary may, at least ~~30~~⁶⁵ days before the date fixed for the opening of the annual meeting, or ~~15~~²¹ days in case of a special meetings request the inclusion of supplementary items in the provisional agenda. A request for a supplementary item on the provisional agenda shall be accompanied by a memorandum and any relevant documents on the proposed supplementary item. Such items shall be communicated to all official contacts referred to in Rule 2.2 and to observers referred to in Rule 9 at least ~~20~~⁶⁰ days before the opening of the annual meeting and ~~10~~¹⁵ days before any special meetings.
3. At the beginning of the meeting the Commission shall adopt its agenda on the basis of the provisional agenda and any supplementary items. At that time, any Member or the Executive Secretary may request placement of additional items of an urgent character on the agenda. Such items shall be included on the agenda subject to the approval of the Commission. If any Member of the Commission indicates to the Chair that they are not in a position to take a decision on such items at that meeting, the Chairperson shall direct that the decision be taken intersessionally in accordance with Rule 7.6 - 7.11.
4. All documents to be prepared by the Executive Secretary for the annual meeting shall be circulated at least 30 days in advance of the meeting, unless otherwise decided by the Commission.
5. Proposals or amendments to be discussed at meetings shall be submitted to the Executive Secretary no less than 50 days before the date fixed for the opening of the meeting. The Executive Secretary shall make proposals and amendments available by no no later than 45 days before the beginning of the meeting by posting them on the public access area of the SPRFMO website. If a draft proposal is either an amendment to an existing decision or conservation and management measure, or an amendment to an earlier proposal previously submitted by the same proponent, it shall be submitted and circulated as both a clean version and a track change version.
6. Any other documents to be discussed at meetings shall be submitted to the Executive Secretary no less than 30 days before the dated fixed for the opening of the meeting. The Executive Secretary shall circulate them at least 20 days before the start of the meeting.

Rule 5

CHAIRPERSON AND VICE-CHAIRPERSON

1.
 - (a) In accordance with Article 7 paragraph 2 of the Convention, the Commission shall elect a Chairperson and a Vice-Chairperson from among the Contracting Parties for a term of two years. Each shall be eligible for re-election but shall not serve for more than two terms in succession in the same capacity. The Chairperson and Vice-Chairperson shall be representatives of different Contracting Parties;
 - ~~(b)~~ The Chairperson and Vice-Chairperson shall take office at the conclusion of the annual meeting at which they are elected, with the exception of the first meeting where they will take office from the moment of their election which shall take place at the opening of this meeting.
 - ~~(c)~~ and as an exception to the first paragraph of this rule, in recognition of the importance of relevant scientific expertise in the conduct of its work, the Scientific Committee may:
 - i. Elect as Chairperson a suitably qualified person who is from amongst the Cooperating Non-Contracting Parties; and
 - ~~(b)~~ Agree to re-elect a Chairperson for more than two terms in succession.
2. The powers and duties of the Chairperson shall be:
 - (a) to declare the opening and closing of each meeting;
 - (b) to preside at meetings;
 - (c) to rule on points of order, subject to the right of any representative to request that any ruling of the Chairperson shall be submitted to the Commission for decision by vote;
 - (d) to call for and announce the results of votes;
 - (e) to determine after consultation with the Executive Secretary, the draft provisional agenda and the provisional agenda for each annual and special meeting;
 - (f) to oversee the production of a report of the proceedings of each meeting of the Commission; and
 - (g) generally, to make such decisions and give such directions to the Executive Secretary as will ensure, especially in the interval between meetings, that the business of the Organisation is carried out efficiently and in accordance with its decisions.
3. Whenever the Chairperson is unable to act, the Vice-Chairperson shall exercise the powers and duties prescribed for the Chairperson.
4. If the office of the Chairperson is vacated, the Vice-Chairperson shall become Chairperson for the balance of the term.
5. A person who is elected as Chairperson shall cease to act as a representative, expert or adviser of a Contracting Party while in office. The same applies where the Vice-Chairperson is acting as Chairperson.



MINISTERIO
DE ACUACULTURA
Y PESCA



JUREL

Trachurus trachurus

**Proposal by Ecuador to develop JUREL fishing in the area of
the SPRFMO Convention**

**6th Meeting
SPRFMO
Lima, February 02nd, 2018**

Financial feasibility to develop jack mackerel fishery

- The private initiative interested in developing investments in the Jurel fishery proceeded to present to the Ecuadorian Undersecretary of Fisheries a business plan of the estimated conditions on the financial feasibility to carry out an investment plan for this fishery and therefore see which would be the share of Jurel (*Trachurus murphyi*) that Ecuador should manage to the SPRFMO. The purpose of this quota is to ensure a net return for the project, which has the objective of acquiring a purse-seine vessel (new or used) that would operate in the areas of the SPRFMO Convention.
- In summary it was determined that:
 1. The probability to develop as a profitable business the horse mackerel fishery in the SPFRMO convention area under Ecuador's current quota allocation (1,179 MT) is 0% (regardless of whether the investment is based on the acquisition of a used or new vessel).
 2. That the intertemporal equilibrium point for the investment in a used vessel dedicated to the fishing of jack mackerel in waters of the SPRFMO convention is reached from the 6,500 MT; this is 5,321 TM in addition to the current quota, and that,
 3. The investment consists of acquiring a new vessel, at least 12,900 MT of quota is required; this is 11,721 TM in addition to the current quota.

Requirement for development of jack mackerel fishery

Ecuador proposes, as its plan, immediate action to develop the horse mackerel fishing in the area of the SPRFMO Convention:

That the country be assigned a catch quota of 6,500 tons from 2018, with which the Ecuadorian government will be able to deliver it to the Ecuadorian company so that it can develop its business plan.

Specific requirements to Ecuador on regulations

The delegation of Ecuador proposes to the members of the SPRFMO that they consider:

- In the resolution that is approved for 2018, make an amendment to resolution WP 07 Revision of Table 1 and Table 2 of CMM 01-2017 (Jack Mackerel) on the distribution of catches and percentages to make an adjustment to Ecuador's quota allocating a quota of 6,500 tons and that its percentage of representation is 1.13% (increase of 0.89%).
- The requested increase comes from the surplus reserve that is assigned every year of the quota.
- Include Ecuador that is a member of this Commission to replace Belize, within Table 1 of CMM Resolution 01 of the members and CNCP to establish the limit of total gross tonnage (GT) of vessels participating in the *Trachurus murphyi* fishery in the Convention Area.

	GLOBAL QUOTAS OF JUREL					
	2013	2104	2015	2016	2017	2018
TOTAL RECOMMENDED FISHING QUOTA	438,000	440,000	460,000	460,000	493,000	576,000
Increase in% per year	0	0.46	4.55	0.00	7.20	16.84
Total quota distributed between countries		390,000	410,000	410,000	443,000	517,582
Reserve left over from total quota		50,000	50,000	50,000	50,000	58,418
Current quota of Ecuador			1,100	1,100	1,175	1,377
Additional fee requested by Ecuador						5,123

Proposed modification to Table 1 and 2 of the CMM 01 17

Member/CNCP	<u>Tonnage</u>	%
Chile	370,888	
China	36,563	
Cooks Island	0	
Cuba	1,285	
Ecuador	6,500	1.13
European Union	35,185	
Faroe Island	6,386	
Korea	8,385	
Peru	11,684	
Rusia	18,907	
Vanuatu	26,921	
TOTAL	522,704	

Proposed modification to Table 1 of CMM 01 01

Table 1: Gross Tonnage limits as referred to in paragraph 5

Member/CNCP	GT or GRT
▪ Ecuador	9,814 GT
▪ Chile	96,867.24 GT + 3,755.81 GRT
▪ China	74,516 GT
▪ Cook Islands	12,613 GRT
▪ European Union	78,600 GT
▪ Faroe Islands	23,415 GT
▪ Korea	15,222 GT
▪ Peru	75,416 GT
▪ Russian Federation	74,470 GT3
▪ Vanuatu	31,220 GRT



MINISTERIO
DE ACUACULTURA
Y PESCA

Thanks...

6th Meeting of the Commission
Lima, Peru, 30 January to 3 February 2018

COMM6-Report Annex 7a: Edits to CMM 01-2017 (*Trachurus murphyi*)
(Working Paper 11, Revision 3, Adopted by vote 10:20, 2 February 2018)

CMM 01-~~2017~~2018¹

Conservation and Management Measure for *Trachurus murphyi*

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on ~~29-23 to 28~~ September ~~to 3~~ ~~October~~ of ~~2016-2017~~ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

GENERAL PROVISIONS

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *Trachurus murphyi* undertaken by Chile in areas under its national jurisdiction.
2. Only fishing vessels duly authorized pursuant to Article 25 of the Convention and in accordance with CMM 05-2016 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

¹ CMM 01-2017 (*T. murphyi*) supersedes CMM 4.01 (*T. murphyi*) and previously 3.01, 2.01 and 1.01.

EFFORT MANAGEMENT

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)² of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

CATCH MANAGEMENT

5. In ~~2017~~ 2018 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~443 000~~ 517 582 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the Flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2018⁷ throughout the range of the stock should not exceed ~~493 576~~ 000 tonnes.

DATA COLLECTION AND REPORTING

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2017 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
13. Except as described in paragraph 11 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in

²In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

accordance with CMM 02-2017 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
15. [Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM ~~0206~~-2017 (~~Data Standards~~VMS) and other relevant CMMs adopted by the Commission.] ~~These VMS data shall be provided to the Executive Secretary within 10 days of each quarter in the format prescribed by the SPRFMO Data Standards and using the templates on the SPRFMO website.~~
16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels³ they have authorized to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2016 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2017 (Data Standards).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the ~~2017-2018~~ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the ~~2017-2018~~ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the ~~2017-2018~~ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
19. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2017 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its ~~Workplan (2017)~~SC Multi-annual workplan (2018) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:

³Fishing vessels as defined in Article 1 (1)(h) of the Convention.

- (a) the sovereignty of Contracting Parties and CNCs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
- (b) the exercise by Contracting Parties and CNCs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for ~~vessels-trawlers and purse seiners~~ flying their flag and ensure that such observers collect and report data as described in CMM 02-2017 (Data Standards). In the case of the flagged vessels of a Member or CNC undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

COOPERATION IN RESPECT OF FISHERIES IN ADJACENT AREAS UNDER NATIONAL JURISDICTION

23. Members and CNCs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

SPECIAL REQUIREMENTS OF DEVELOPING STATES

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

REVIEW

25. This Measure shall be reviewed by the Commission in ~~2018~~2019. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), ~~and~~ CMM 4.01 (*Trachurus murphyi*, 2016) and CMM 01-2017 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
26. Without prejudice to Members and CNCs without an entitlement in Table 1 and the rights and obligations specified in Article 20 paragraph 4(c) of the Convention and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCs' catch limits from 2018 to 2021 inclusive.

Table 1: Tonnages in 2017-2018 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	371 887 317 300
China	36 563 31 294
Cook Islands	0 0
Cuba	1 285 1 100
Ecuador (HS)	1 377 1 179
European Union	35 186 30 115
Faroe Islands	6 386 5 466
Korea	7 385 7 321
Peru (HS)	11 684 10 000
Russian Federation	18 907 16 183
Vanuatu	26 921 23 042
Total	517 582 443 000

Table 2: Percentages⁴ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

⁴ These percentages shall apply from 2018 to 2021 inclusive.

7th ANNUAL MEETING OF THE COMMISSION MEETING REPORT

23-27 January 2019

The Hague, The Netherlands

Document name: SPRFMO COMM7-Report

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7TH ANNUAL MEETING OF THE COMMISSION

The Hague, The Netherlands, 23-27 January 2019

COMM7 – Meeting Report

1. Opening of the Meeting

1. Mr. Johan Osinga, Director General, Nature, Fisheries and Rural Areas, Ministry of Agriculture, Nature and Food Quality, the Netherlands, welcomed participants to the Hague and to the 7th meeting of the Commission, celebrating the global representation and joint commitment to sustainable fisheries and management of marine resources. Pointing to the recovery of jack mackerel stocks as a testament to international cooperation, he invited participants to continue to advance by: improving monitoring and control systems; effectively allocating budget resources; and following up on the Performance Review Panel's recommendations (Annex 10a).
2. Commission Chairperson Mr. Osvaldo Urrutia (Chile) opened the meeting, highlighting significant work over the last year, including: the appointment of Dr. Sebastian Rodriguez as the Executive Secretary of SPRFMO; the CMM on jack mackerel; and the establishment of the Performance Review Panel. He further encouraged collaborative discussions to progress the conservation and management challenges in bottom fishing and with the Observer Programme (Annex 10b).

a. Participation and Adoption of the Agenda

3. A list of participants is available in Annex 1. The Commission adopted the Agenda (Annex 2) without any changes.

b. Annual meeting documents, programme and timetable

4. The Meeting Documents (COMM7-Doc03 rev1) and the meeting programme and timetable (Annex 3) were made available.

2. Membership

a. Status of the Convention

5. New Zealand, as the Depositary of the SPRFMO Convention, provided an update of the status of the Convention (COMM7-Doc05), noting that there have been no new notifications of ratification or accession, and encouraging CNCPs to work towards ratification of the Convention.

3. Scientific Committee (SC)

a. Report of the SC6 and 2019 SC Workplan

6. Scientific Committee (SC) Chairperson, Dr James Ianelli (United States of America), presented the report and scientific advice of the 6th SC Report, which was held in Puerto Varas, Chile, from 9 to 14 September 2018. He reviewed progress made in the 2018 Workplan on assessments and requirements for future data collection for jack mackerel, deepwater and squid fisheries, ecosystem approaches on marine management and exploratory fishing, as well as progress for the Observer Programme. He summarised SC recommendations for the Commission, noting that management strategies should be re-evaluated annually to account for new challenges and data, and introduced the proposed Workplan.



7. Many Members commended the SC for the quality of its work and advice, as well as for the production of a comprehensive report, and supported the proposed workplan.
8. The EU stressed, *inter alia* the importance of: the review for the jack mackerel, encouraging relevant Members to provide the necessary information to ensure that SC7 is in a position to provide updated advice on stock status and recovery; squid fisheries, encouraging data collection for further developing the assessment model; and the bottom-fishing framework, emphasising the need to respect the SC's mandate to develop such a framework, ensuring that measures are in place to prevent significant adverse impacts on Vulnerable Marine Ecosystems (VMEs).
9. Some Members queried whether length frequency data, to be used for the jumbo flying squid assessment, need to be collected by Observers or whether alternative collection methods through the vessel crew or the captain could be used. SC Chairperson responded that, there were extensive discussions about the same issue in relation to jack mackerel, and that this possibility of alternative collection methods exists for the jumbo flying squid assessment.
10. Some Members reiterated their interest in bottom fisheries. New Zealand welcomed advances on the stock assessment approaches on squid, and the checklist for proposals' review for exploratory fisheries, noting the relevant SC recommendations.
11. Chinese Taipei highlighted data collection for the jumbo flying squid. Chile noted the precautionary approach taken in the SC advice on the jack mackerel Total Allowable Catch (TAC); and highlighted different approaches presented for the squid stock assessment, encouraging relevant data collection and submission. Peru emphasised the role of Observers for obtaining precise information.
12. The Russian Federation underscored the need for more detailed information on squid, as well as for additional information and work on exploratory fisheries. Regarding exploratory fisheries, Australia noted that the proponent should be responsible for developing data collection plans.
13. The Deep Sea Conservation Coalition suggested that the Commission instruct the SC to: more thoroughly review the zonation model and the encounter protocol at its next meeting; prioritise stock assessments for all target species as a matter of urgency; and provide advice on assessment and minimising impacts on non-target species.
14. The Committee for the Sustainable Management of the Southern Pacific Jumbo Flying Squid (Calamasur) made a general intervention on the management of the jumbo flying squid, highlighting, *inter alia*: the fact that less resources are available; lack of knowledge on the species' biology; lack of VMS; lack of biological data through an Observer Programme; lack of the proper mechanism for cooperation in research; lack of a CMM on the jumbo flying squid; and the need to combat IUU fishing. Calamasur suggested creating an SC sub-group to evaluate the stock, just like the jack mackerel, led by an independent scientist with experience on stock evaluation for the jumbo flying squid.
15. China pointed out that some of the presented information is misleading, stressing that there is no evidence to support that catches decrease, and no signs of jumbo flying squid is being overfished. China highlighted that the biological characteristics of the squid that significantly differ from those of finfish species. VMS regulations have been implemented for the jumbo squid fisheries in the Convention Area. China also suggested that all Members and CNCs engaged in the jumbo squid fisheries should provide relevant data to the SPRFMO Secretariat.
16. The Commission adopted the SC report and the proposed Workplan (Annex 5 of SC report).



4. Compliance and Technical Committee (CTC)

a. Report of the CTC 6

17. CTC Chairperson Wright presented the report of the CTC6, held 19 – 21 January 2019 in The Hague, The Netherlands. Noting an overall improvement among Members in compliance issues, as well as a decrease in priority non-compliance, he emphasised CTC's adoption of the provisional compliance report.
18. On matters concerning implementation of current CMMs, CTC Chairperson Wright highlighted, *inter alia*: in the Commission Record of Vessels report, New Zealand's proposal to lead work to amend the CMM on Record of Vessels; in the Vessel Monitoring System (VMS) report, a demonstration for a proposed Electronic Reporting System (ERS); and in the Port Inspection Report, the fact that many Members opined that the requirement of 5% of vessels to be inspected seemed low. Chile noted 100% inspection rate in the reporting period, indicating that goals could be higher and emphasised that text for a gradual increase would be submitted for consideration by the Commission.
19. CTC Chairperson Wright reported all vessels from the Draft IUU List were removed except one, the AMALTAL APOLLO. He further noted that although many Members agreed that effective actions were taken by New Zealand, as the flag state, there was no consensus for removal and the matter was forwarded to the Commission for its consideration of the Provisional IUU List for 2019. The Current IUU List remains the same, as according to the CTC, no new conditions were met.
20. On applications for renewing the CNCP status of Curaçao, Liberia, Colombia and Panama, the CTC recommended that all four applications be accepted.
21. CTC Chairperson Wright further reported that all proposals for amendments to CMMs, as well as for new CMMs, were introduced and discussed during the CTC, aside for those on exploratory fishing. He indicated that the CTC recommended the adoption of the EU proposed amendments on the Compliance and Monitoring Scheme (CMS) (COMM7-Prop08). The CTC also considered the Performance Review Panel's recommendations, and set up a working group chaired by Sam Good, Australia, to further develop recommendations for work in 2019, and review the IUU List in 2020 and propose a compliance monitoring scheme for 2021.
22. The Commission adopted the CTC6 Report.

b. Final Compliance Report

23. The Commission considered the Provisional Compliance Report provided by the CTC (Annex 4 of CTC report) and adopted the Final 2019 Compliance Report (ANNEX 4).

c. 2019 IUU List

24. New Zealand expressed concern that the vessel AMALTAL APOLLO was placed on the Provisional IUU List, despite many Members' recognition of the thorough actions taken. Reviewing these actions to sanction and prosecute the company in breach, New Zealand reported that the vessel is currently released under bond and is currently only fishing in the EEZ and not the Convention Area. New Zealand stated that due to the domestic legislation settings, however, they were not able to cancel the operator's High Seas permit before a guilty verdict by the Court.
25. Several Members voiced support for removing the AMALTAL APOLLO from the Provisional IUU List, based on sufficiency of sanctions already imposed, in accordance to Article 10 of CMM 04-2017.
26. The Russian Federation cited the fact that the vessel is still authorised to fish in the Convention area as reason not to remove it from the provisional IUU List. The EU expressed concern about creating a precedent by removing a vessel from the provisional IUU List before prosecution is completed and noted that consistent



criteria should be used by the Commission when deciding whether to remove a vessel from the provisional IUU List.

27. Peru suggested that, if the AMALTAL APOLLO is not to be removed from the provisional IUU List, a provision be included that notes that once prosecution is complete, it can be removed.
28. No comments were made for the other 3 vessels in the 2018 IUU List.
29. Following consultations, New Zealand, reiterating the swift actions taken and application of sanctions, addressed concerns raised by Members with a proposal to commit placing the vessel on the next year's IUU Draft list, thus allowing for further Commission consideration.
30. Chile emphasised that the rules clearly outline actions required, which New Zealand has complied with. Australia, reflecting the debate around CMM04-2017 and their application, and noted that, among other issues, the current measure did not really take into account the time it takes for flag states to undertake complicated prosecution and that this can impact the assessment of effective action. Australia offered to consider issues further and lead intersessional work aimed to improve the IUU measure.
31. The Commission agreed to task the Secretariat to include the AMALTAL APOLLO on the Draft IUU List next year. The Commission endorsed the removal of AMALTAL APOLLO from the 2019 Provisional List and adopted the 2019 Final IUU List, with no change from the previous year. Accordingly, the vessels VLADIVOSTOK 2000 (ex DAMANZAIHAO); BELLATOR; and MYS MARI remained on the List (Annex 5).

d. *Status of Cooperating non-Contracting Parties (CNCs)*

32. The Commission reviewed the recommendations made by the CTC and agreed to renew the CNC status for Liberia, Curaçao, Colombia and Panama. The 4 CNCs renewed their commitment to work towards achieving the Commission's objectives and, as requested, Colombia reaffirmed its willingness to make the relevant voluntary contribution.

5. Finance and Administration Committee (FAC)

a. *Report of the FAC 6*

33. The Chairperson of the FAC, Ms Kerrie Robertson (Australia), presented the report (FAC6-Report) and recommendations of the sixth meeting of the FAC held during the seventh Commission Meeting. FAC Chairperson Robertson highlighted the FAC recommendations to the Commission, including *inter alia*:
 - accept the Annual Financial Statements (FAC6-Doc04, FAC6-Doc04.1, FAC6-Doc04.2 and FAC6-Doc04.3);
 - accept the Auditors Report, noting no concerns were identified (FAC6-Doc04);
 - increase the Contingency Fund by NZ\$ 20,000;
 - address the recommendations made by the Performance Review Panel (listed in an Annex to the report), noting budgetary constraints as a challenge, with a moderate approach;
 - accept the New Zealand proposal on the implementation of a Code of Ethics and conflict resolution procedure (COMM7-Prop17 rev1) which amends the Staff Regulations new administrative policies including the Secretariat Disaster Recovery Plan (FAC6-Doc11), the Secretariat Mobile Device Acceptable Use Policy (FAC6-Doc11), and progress made in Secretariat Communication Plan;
 - adopt an amendment to the Financial Regulations to use the Contingency Fund for any Article 17 review process and to adopt guidelines for the administration of the Developing States Fund (DS Fund) – Travel Support Policy (COMM7-Prop18 and COMM7-Prop18.1), noting the need to address accessibility for capacity building and seeing the USA will lead intersessional work in this area;



- consider, in light of the offer by Chile to provide a compliance professional to the SPRFMO Secretariat, whether or not to include the recruitment allocation in the budget as supported by many Members;
 - cap Member contributions for this financial year at 15%, acknowledging that any shortfall in the budget will be met with CNCP contributions and/or the Accumulated Surplus Fund; and
 - support the nomination of Ms. Kerrie Robertson, Australia, and Mr. Gerry Geen, Vanuatu, to continue their role as Chairperson and Vice Chairperson of the FAC.
34. FAC Chairperson Robertson invited the Cook Islands to present their proposal to address the calculation of the quota component of the budget formula relating to their exploratory potting fishery, noting the quota does not follow a calendar year and that the Secretariat would require guidance to ensure that paragraph 7c of the Financial Regulations continued to be implemented correctly. The Cook Islands suggested that, in cases where a fishing year and an associated catch limit do not line up with the calendar year, the date upon which the catch limit enters into force is taken as the year to which the catch limit applies for the purposes of calculating the Member contributions. The Commission accepted the proposal by the Cook Islands.
35. Commission Chairperson Urrutia expressed appreciation for the hard work and commitment of Kerrie Robertson, Australia, over two years, and satisfaction to see confirmation of her outstanding support, also acknowledging the work of Gerry Geen, Vanuatu.
36. The Commission agreed to adopt the amendments to the Financial Regulations (Annex 6a) and Staff Regulations (Annex 6b), as proposed by the FAC.

b. Budget

37. The Russian Federation requested moving NZ\$ 85,000 for the recruitment and installation of a compliance manager from the 2019/20 budget to the 2021/21 budget. Many Members underscored the importance of the compliance manager, noting that the relevant resources should be budgeted in 2019/20.
38. In the absence of consensus, the Commission removed the cost related to the compliance manager from the 2019/20 budget, which was amended to a total of NZ\$ 1,172,000. The Commission adopted the budget as amended (Annex 6c), and the associated Member contributions (Annex 6d).
39. Executive Secretary Dr. Rodriguez and Chairperson Urrutia highlighted that, according to the decision taken in this meeting, the forecast for the 2020/21 budget shows a significant increase of 24.3%, urging Members to think intersessionally about ways to address this and ensure that the SPRFMO is in a position to reach the objectives of the Convention.

c. Date and Venue of the next meetings of the Commission and Subsidiary bodies

40. FAC Chairperson Robertson reported that FAC recommended the Commission accept the offer of Vanuatu to host the 2020 meeting of the Commission from 10-12 February for CTC, and 14-18 February for the Commission meeting; Peru host the 2021 meeting of the Commission; and the expression of interest by the Cook Islands to host the 2022 meeting of the Commission.
41. The FAC also recommended welcoming Cuba's offer to host the 2019 SC meeting (SC7) in La Havana, Cuba, 7-12 October 2019 (SC7 will be preceded by a 2-day workshop covering squid topics); and New Zealand's offer to host the 2020 SC meeting (SC8).
42. The Commission accepted these offers.



6. Conservation and Management Measures (CMMs)

a. Amendments to current CMMs

a1. CMM 01-2018 *Trachurus murphyi*

43. Vanuatu introduced its proposal (COMM7-Prop 01), noting it had received general support during the 6th SPRFMO Commission meeting and it had been withdrawn to allow one Member to amend national legislation. Vanuatu noted that, since the last Commission meeting, the Review Panel established to listen to Ecuador's objection to the jack mackerel allocation and the SPRFMO Performance Review Panel had both encouraged the Commission to further develop and adopt the proposal. Vanuatu stressed that the proposal mainly aims to provide a mechanism for Members with low quota allocation to increase their quotas, and emphasised that, following discussions in CTC6, they have developed a simple model to demonstrate how the proposal will work in practice.
44. Chile reiterated its support for the proposal. Following informal discussions, Vanuatu withdrew the proposal, noting that following some Members' suggestion, it may be further pursued next year.

a2. CMM 01-2018 *Trachurus murphyi*

45. Ecuador summarised its proposal (COMM7-Prop 02): noting the suggested inclusion of Ecuador's EEZ in the Area of the Convention under the provisions of Article 20 (4) (iii); and emphasising that the memorandum of the SPRFMO sent to its Review Panel in its Article 92 establishes that there are 58,418 tonnes that are found in the sovereign waters of Peru and the EEZ of Ecuador, proposing an allocation of 11,523 tonnes from this area.
46. Peru reiterated its position, expressed during the CTC meeting, stressing that Ecuador is not the only Member with aspirations for additional quotas and noting that they are ready to continue discussions despite the fact that their position that the proposal lacks the right foundations has not changed. Chile recalled its position, stated during the CTC meeting, that the Commission has no powers to make any decisions regarding the adjacent EEZs, except in the relevant situations set out in Convention Articles 20 and 21.
47. Reminding that Ecuador had not attended the 2017 meeting, which decided on the jack mackerel allocation, due to the earthquake, Ecuador stated that the Commission has the capacity to decide on the proposed issue, adding that the re-allocation of quotas would address problems in the current allocation, which could be more "fair and just".
48. Peru noted its disagreement, distinguishing between Review Panel's recommendations and possible ways forward identified by panel participants during their interventions, and cautioned that re-opening the discussion on allocation would bring forth requests for additional quotas by more Members. Discussions continued informally.
49. Following informal discussions, Ecuador presented a revised proposal (COMM7-Prop02 rev1) based on consultations held with many Members, emphasising that the proposal does not intend to re-allocate a quota in favour of Ecuador, but increase its quota taking into account the portion, which comes from the geographical area of the range of the stock falling outside the Applicable Area of the CMM for *Trachurus murphyi* comprising areas under the national jurisdiction of Peru and Ecuador. Based on an economic feasibility study, Ecuador reported that the quota currently allocated is insufficient to develop fisheries, reiterating that the proposal is to activate established quotas under the CMM, while stressing Ecuador's respect for the outcome of relevant deliberations, despite disagreement with the quotas.
50. Some Members noted that they cannot support the proposal. Chile highlighted the existing arrangement on jack mackerel, which extends until 2021, noting that a joint proposal with Ecuador could be submitted in the future. Peru emphasised that the proposal lacks proper scientific foundation, citing the approved CMM on jack



mackerel and relevant SC recommendations. Peru read from a letter from their Minister of Production, which relayed, *inter alia*, interest to maintain positive cooperation with Ecuador but inability to support this proposal.

51. Following further informal consultations, Ecuador tabled a revised proposal (COMM7-Prop02_rev2), decreasing their proposed allocation. Ecuador reiterated that their suggestion: does not affect the allocations of other Members; is fair; allows them as a developing coastal country to develop a necessary fishery; and opens up their EEZ.
52. Peru stressed that they have held extensive consultation with Ecuador, noting that taking a decision at this stage is not within their delegation's power, and suggesting arranging a bilateral meeting in February to reach a satisfactory agreement for both Members.
53. Chile acknowledged efforts by Ecuador by lowering its aspirations to a proposed allocation closer to historic data. Chile emphasised that they can support the proposal only under the condition that Ecuador and Peru reach a mutually satisfying agreement.
54. Some Members stressed that this is a bilateral matter and should be discussed as such. The EU added that a standardised way to address similar cases should be developed. Many Members underscored that having to take a decision on the unallocated portions puts them in a difficult position, urging the two Members to reach a compromise solution in the near future.
55. After listening to the comments, Ecuador, through a statement, decided to withdraw its proposal, underscoring the openness shown by Peru to continue bilateral discussions in order to reach an agreement. Peru looked forward to a bilateral meeting next month "to close this matter once and for all". The Commission took note of the two countries' constructive engagement, looking forward to a positive outcome.

a3. CMM 03-2018 Bottom Fishing

56. New Zealand presented the proposal, tabled together with Australia, on Management of Bottom Fishing in the SPRFMO Convention Area (COMM7-Prop03 and COMM7-Prop03.1), reporting progress made during a working group formed during CTC6, and noting the move from a historical fishing footprint to a spatial management approach for the management of bottom fishing.
57. Australia summarised technical measures contained in the proposal, emphasising the aim to enhance protection of and avoid significant, adverse impacts on VMEs in the SPRFMO area, and identifying the need for a system of common rules to improve the measure.
58. The Deep Sea Conservation Coalition opined that the approach is still far from precautionary and urged Members to adopt a robust proposal that can withstand increased international scrutiny.
59. Gerry Geen, Vanuatu, Chair of the working group on Bottom fishing, reported on developments, sharing that SC Chairperson, Dr. James Ianelli, will join working group sessions to provide insight on the SC's deliberations on the protection of VMEs and the avoidance of adverse impacts. Following further meetings of the working group, Vanuatu shared the opinion that overall understanding of how the measure, in practice, protect VMEs, has improved due to presentations made. He noted that striking a balance between interests in conservation, or level of protection of the VMEs, with interests in continuing bottom fishing are difficult to balance, while generally Members see the measure as an improvement and step in the right direction. Chairperson Urrutia noted that the working group will not continue to meet, and a revised draft proposal will be developed through bilateral consultation.
60. Following consultations, Australia and New Zealand reviewed editorial changes in COMM7-Prop03 rev2 and highlighted amendments related to the policy consideration of the CMM. Members exchanged views on: the need for the existing participants in the fishery to prepare a new impact assessment, consolidating the existing scientific work; options for engaging the SC advice, specifically in encounters with VMEs, and ways to use that advice to inform management actions by the Commission; and the provisions around strengthening the review process of the CMM. In particular, some Members noted that the proposed bottom fishing framework



represents an improvement to the current CMM, but expressed concerns about the proposed model, VME-indicator thresholds and the action to be taken following encounters with VMEs.

61. New Zealand introduced the amendments to the revised version (COMM7-Prop03 rev4). The EU expressed appreciation for the hard work put into the proposal by the co-proponents and noted that the revised version provides for better protection of VMEs and brings forward the review of the model and the effectiveness and appropriateness of the management measures, in particular those related to VMEs. Following a query by the Russian Federation, New Zealand explained that exploratory fisheries will be regulated under the relevant CMM.
62. The Deep Sea Conservation Coalition stressed that this proposal is not a precautionary approach to managing these bottom fisheries and is not consistent with the relevant UN resolution, urging review of the proposal by the SC and Members at the next meeting, and appealing to members of the High Seas Fishing Group to adopt a precautionary approach, despite not being legally required to do so.
63. The High Seas Fishing Group stressed that the measure is overly precautionary and wrong, creating obstacles to their commercial operations.
64. The Commission adopted the proposal (Annex 7a).

a4. CMM 04-2017 IUU List

65. The EU presented the revised proposal (COMM7-Prop04 Rev2), noting that, as consensus could not be reached on the reference to cross-listing, it was removed. Australia expressed regret over removing reference to cross-listing, while commending the EU on its flexibility, further qualifying that the proposal is already subject to accordance with national laws.
66. In view of the positions expressed by some Members, language on actions against nationals involved in IUU activities was amended to be more consistent with, albeit less stringent than, similar provisions of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR).
67. The Commission adopted the proposal to amend the CMM (Annex 7b).

a5. CMM 05-2016 Record of Vessels

68. New Zealand went through the amendments of a revised version of their proposal (COMM7-Prop05 rev1), noting that: the scope of the obligation in paragraph 2 had been expanded, following an insertion by Australia; the obligations regarding first entry have been clarified, the Secretariat would now be required to notify a vessel's current flag state when receiving a notification indicating a flag change; and an obligation for all Members' and CNCPs' fishing vessels to have International Maritime Organization (IMO) numbers, had been expanded to also include vessels below 100 Gross Tonnage (GT).
69. Chile supported the amendments, suggesting that Members and CNCPs be allowed some time to adapt with the new obligations regarding IMO numbers.
70. Pew Charitable Trusts welcomed the proposal, noting that IMO numbers for smaller vessels, in line with the relevant IMO Assembly decision, provides for accurate vessel identification, which is key to combatting IUU fishing.
71. The Secretariat clarified that, regarding compliance, the obligation to include IMO numbers for vessels on the record below 100 GT will be extended in 2020.
72. Following discussions, New Zealand presented the amendments in the proposal. China requested clarifications on the description of modifications referenced in the text.



73. Following further informal deliberations, New Zealand introduced minor amendments to the proposal. China requested clarifications on a suggested amendment from “flag authorisation start date” to “vessel authorisation start date”. Following explanations by the Secretariat, Members decided to revert to the original formulation, also deciding to refer to “flag authorisation end date” for matters of consistency, following a relevant suggestion by Australia.
74. Chile requested clarifications on consistency regarding requirements for dates of valid entries in cases of flag change, which the Secretariat provided. With these and a minor amendment proposed by Korea, the Commission adopted the proposal (Annex 7c).

a6. CMM 07-2017 Port Inspection

75. The EU presented revisions to its proposal on Port Inspections (COMM7-Prop06Rev2), highlighting additional obligations in the Use of Ports that entry should be denied to a Member’s or CNCP’s port, to a vessel lacking a valid fishing authorisation, or in cases where there is clear evidence that the vessel has fished in contravention of the applicable SPRFMO obligations. On the additions to the provisions of Members and CNCPs to cooperate for implementation of the CMM, the EU highlighted provisions to share information and, when possible, do so through electronic exchange.
76. Some Members proposed including text to increase the minimum port inspection rate from the base of 5%, at an annual rate of 10%, beginning in 2020, noting that a robust framework will improve fishery management. Chinese Taipei voiced concern on the increase of minimum port inspection rate, sharing that the inspection of foreign carrier vessels can take up to 10 days by monitoring the whole landing process, which poses significant enforcement burdens. Some other Members agreed with challenges raised by Chinese Taipei, saying they do not support the New Zealand proposed amendment. As no consensus could be reached, New Zealand accepted to withdraw the proposed increased minimum port inspection rate and committed to continue relevant work intersessionally.
77. The Russian Federation said that in the section on Port Inspections, reference should be made to ‘fishing vessels’ rather than just ‘vessels.’
78. Chile expressed full support for the revised proposal and all of its amendments. Pew Charitable Trusts also welcomed the proposal.
79. China reiterated the position that the application of this CMM should be within the existing domestic legal framework of the Members.
80. The Commission adopted the proposal (Annex 7d).

a7. CMM 08-2013 Gillnets

81. The EU presented the second revision of its proposal (COMM7-Prop07Rev2), drawing attention to editorial changes and noting the inclusion of CNCPs, in addition to Members, in the description of responsibilities of the measure.
82. Australia suggested further including a provision to ensure that all gillnet fishing gear on board is stowed while in the Convention Area. Following concerns raised on challenges in determining compliance, raised by Chile and the New Zealand High Seas Group, the proposal was retracted so it can be refined and raised at another meeting.
83. The Russian Federation suggested that ‘flagged vessels’ be further clarified as ‘flagged fishing vessels.’ With this amendment, the Commission adopted the proposal (Annex 7e).



a8. CMM 10-2018 Compliance Monitoring Scheme

84. The EU presented its revised proposal (COMM7-Prop 08), noting it changes the period of coverage by the CMS in order to better align it with other submission deadlines, and reminding Members that the CTC had suggested adoption. Peru supported the proposal.
85. The Commission adopted the proposal with no further comments (Annex 7f).

a9. CMM 11-2015 Boarding and Inspection

86. The US introduced its proposal (COMM7-Prop 09), stressing that it sets SPRFMO-specific measures for boarding and inspection, recalling a relevant recommendation by the Review Panel. The US noted that they will continue engaging interested Members to address outstanding issues, including prioritisation of High-Seas Boarding and Inspection (HSBI) activities, use of force and settlement of disagreements.
87. Many Members supported the proposal and looked forward to starting the discussion on the proposal's technical issues, with a view to reaching consensus. Chinese Taipei emphasised that the proposal is in the scope of this Convention, since the Convention did not exclude the right of fishing entities or CNCs to participate in the HSBI procedures, and requested that the proposal should be read in good faith by all the Members. China reiterated its position about the HSBI programme is only for contracting Parties, in accordance with the Convention. The Cook Islands drew attention to a Register, currently bracketed in the proposal, noting it is important in the HSBI scheme. Discussions continued in a working group.
88. The USA shared continued progress on the technical aspects of the proposal and noted remaining overarching issues to be resolved.
89. Following consultations, the USA withdrew the proposal in order to continue relevant work intersessionally, noting that despite significant progress, differences in opinions remain. Commission Chairperson Urrutia and many Members expressed support and appreciation for the dedicated effort by the USA, and specifically to Michael Tosatto, in improving the technical aspects of the proposal and further expressed hope to have a revised proposal for next year's meeting.

a10. CMM 12-2018 Transshipment

90. The EU presented its proposal (COMM7-Prop10) to amend CMM12-2018 on the regulation of Transshipment and Other Transfer Activities, noting that, following discussions in the CTC, comments were received, with one Member having a different approach to transshipment.
91. China expressed doubts about whether managing fishing activities outside the Convention Area had solid legal basis. Many Members considered that the Commission has the appropriate powers to regulate SPRFMO-managed resources. The US emphasised that several of the Convention's provisions demonstrate that constraining measures in a geographical area is not the intent, adding that transshipment anywhere at sea must be between vessels on the SPRFMO Record of Vessels. Australia and Chile agreed there was no doubt as to the Commission's competence to regulate transshipment of SPRFMO resources outside the Convention Area.
92. The Russian Federation noted that if catches are taken in the Convention Area and transshipment takes place in the EEZ of a third country, it will be difficult to find SPRFMO-identified carrier vessels. Chairperson Urrutia clarified that this is an implementation problem. Australia underscored the need for visibility and traceability, and noted that the amendment proposed would result in more carrier vessels seeking to be included on the SPRFMO Record of Vessels, thereby addressing the issue identified by the Russian Federation. Australia noted further that if there are implementation issues, the Commission could limit transshipments to the Convention Area.
93. Many Members supported the proposal, stressing that the Commission has the authority to manage resources caught in the Convention Area, anywhere in the world. Peru added that Members should agree to cooperate



with the Commission to ensure that SPRFMO resources are traceable and properly supervised. The Pew Charitable Trusts welcomed the proposal, emphasising how it is improving the traceability of transshipment.

94. Some Members also noted it would incentivise registration to the Record of Vessels, which is included in the rules of transshipment. The Cook Islands noted that, under national legislation, they can act against their flag vessels anywhere in the world, noting that it would be preferable if SPRFMO could have similar jurisdiction on matters under its remit.
95. Korea reminded Members that they have provided language to address exceptional situations.
96. Following informal discussions, no consensus could be reached, and the proposal was not adopted.

a11. CMM 13-2016 Exploratory Fisheries

97. Australia introduced the proposal (COMM7-Prop11), jointly submitted with New Zealand, noting that the proposed amendments are consequential amendments to the proposed updated bottom fishing CMM and better clarify whether proposals should be assessed under the CMM on bottom fishing or the one on exploratory fisheries.
98. The Commission adopted the proposal (Annex 7g).

a12. CMM 16-2018 Observer Programme

99. New Zealand, Chair of the working group created by the CTC to further advance discussions on the Observer Programme, reported back on deliberations. New Zealand stressed that, following 3 meetings of the working group, there is general willingness to adopt the CMM on the Observer Programme during this meeting. New Zealand further noted that the accreditation process has been discussed and additional proposals on the Annex and the minimum Observer coverage level for fisheries with no fishery-specific CMM in force were being further considered. Discussions continued in the working group on outstanding issues.
100. Following consultations, New Zealand reported on the working group's deliberations, noting that a revised document had been produced, and that paragraph 4 regarding minimum level of Observer coverage for fisheries with no fishery-specific CMM in force was still outstanding.
101. China stressed that the purpose of the Observer Programme is to supply scientific information, and the information can be collected in various ways. Furthermore, the financial implications of such measures should be also taken into account requesting to take the decision with caution. Many Members recalled that, according to Article 28, the purpose of the Observer Programme was broader than that suggested by China.
102. The USA noted that the relevant text sets important provisions for collecting necessary information, noting the exclusion of reefers and supply vessels and that the alternative formulation of paragraph 4 provided offers a non-binding requirement.
103. Korea reiterated their concerns over the minimum level of Observer coverage, stressing that it is difficult to accept an obligation that they will not be able to comply with, and noting that they could agree with the non-binding alternative suggestion if the coverage level is decreased to 5%. Chinese Taipei stated the minimum level of Observer coverage of squid jigging fisheries shall be calculated on scientific basis, and suggested the minimum level of Observer coverage of squid jigging fisheries could be 5% or lower.
104. Australia underscored and appreciated the flexibility that Members have shown in the discussions, and the willingness to explore a variety of means to verify data and encouraged these Members to accelerate efforts in this regard. Australia noted its strong support for two supplementary documents, annexed to the proposal (COMM7-Prop12 rev4), on engaging an Observer Program Accreditation Evaluator.
105. The Cook Islands said they cannot accept the exclusion of reefer and supply vessels from the application of the measure. Some Members stressed that the Observer Programme is more science-related than compliance-related. Peru noted that a minimum amount of scientific data and information were required to properly assess



the minimum coverage level and called for flexibility in the Observer Programme to allow for additional information and deliberations.

106. Chile suggested a way forward by establishing a lower minimum Observer coverage percentage of 5% and mandating the SC to provide clear advice on the matter. New Zealand supported a minimum Observer level of coverage for all SPFRMO fisheries, noting that, in addition to scientific data, Observers provide information, which support the functions of the Commission and its Subsidiary Bodies. New Zealand further noted, as a potential compromise, that the SC could be tasked to provide advice.
107. Peru clarified that the minimum Observer coverage level in the proposal refers to species for which no fishery-specific CMM is in place, noting that any decision can be modified through a future CMM for squid. Peru further stressed the complexity of squid fishery, emphasising that needed data on length frequency distribution and sexual maturity can only be obtained through Observers. Korea suggested having further in-depth discussions on the issue in a future SC meeting.
108. The Committee for the Sustainable Management of the Southern Pacific Jumbo Flying Squid (Calamasur) stressed that stock assessment attempts for squid are hampered by lack of scientific information.
109. Colombia highlighted the importance of establishing a minimum Observer coverage percentage and stressed the necessity of carefully determining this percentage to ensure representative sampling. Colombia provided an example in the framework of the Inter-American Tropical Tuna Commission where the scientific staff has established that, with respect to longliners, there has to be at least a 20% coverage in order to ensure representative sampling. China noted that the nature of the squid jigging fishery is very different to the tuna fishery and that this was not an appropriate example.
110. Following consultations, New Zealand introduced further amendments to the proposal (COMM7-Prop12 rev5), noting that the Commission had decided to encourage Members and CNCPs to undertake their best efforts to have Observers on board their fishing vessels (excluding reefer and supply vessels) flying their flags and fishing for fisheries resources in the Convention Area for which there is no fishery-specific CMM in force. The SC shall provide advice to the 8th meeting of the Commission in 2020 on the appropriate levels of Observer coverage for these fisheries. New Zealand highlighted a further revision, proposed by the EU, noting that the Secretariat, rather than Members, shall evaluate the proposals received on the Observer Programme Accreditation Evaluator, according to the relevant criteria. Executive Secretary Dr. Rodriguez remarked that, following the Performance Review Panel's relevant recommendation, should the Observer Programme go through, an additional person should be added to the Secretariat, noting that relevant discussions will be held under the budget agenda item.
111. The Russian Federation queried budgetary implications, with Executive Secretary Dr. Rodriguez explaining that the relevant expenses will be covered by the EU contribution of 150,000 Euros for the first year, and Members' contributions will be requested after that period.
112. Members expressed their appreciation to Don Syme and Kirstie Knowles, Chair and Co-chair of the Working Group for excellent work and, following minor amendments, the Commission adopted the Observer Programme CMM (Annex 7h), its annexes, the call for proposals for a SPFRMO Observer Programme Accreditation Evaluator (Annex 7i), and the relevant process for tender evaluation (Annex 7j).

a13. CMM 01-2018 Trachurus murphyi

113. The Secretariat presented COMM7-WP18, as updated by SC advice.
114. The Commission adopted an amendment to paragraph 9, recognising that catch entitlement transferred to a Member or CNCP that consents on applying this CMM in areas under its national jurisdiction, according to Article 20(4) (a) (iii), may catch this entitlement either in the Convention Area or in its EEZ. With this amendment, the Commission adopted the proposal (Annex 7k).



b. New CMMs

b1. CMM for Exploratory Toothfish Fishing in the SPRFMO Area (NZ)

115. New Zealand introduced its proposal (COMM7-Prop13 and COMM7-Prop13.1), noting it is an extension and expansion of its previous successful exploratory fishing activities. Providing the details of the proposal, New Zealand stressed that SC6 had recognised the relevant scientific benefits and advised that the proposal met all the assessment criteria.
116. Australia encouraged New Zealand to maintain close links with the Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR), including on reporting requirements if the proposal goes through and, with the Russian Federation, requested clarifications on the proposed TAC of 220 tonnes. New Zealand responded that CCAMLR's catch documentation scheme will be applied and that the TAC had been considered appropriate by the SC.
117. After discussing its proposal informally with Members, New Zealand proposed a reduction in the catch limit from 220 tonnes to 140 tonnes.
118. The Commission adopted the CMM (Annex 7l).

b2. CMM for Exploratory Toothfish Fishing in the SPRFMO Area (EU)

119. The EU introduced its proposal (COMM7-Prop14 rev1), noting it allows for exploratory bottom longline fishing for Patagonian toothfish (*Dissostichus eleginoides*) in the High Seas area of the South Tasman Rise, which straddles the Australian EEZ. The EU highlighted the TAC of 45 tonnes in a single trip of maximum 21 consecutive days. The EU added that the issues that the SC had flagged during prior submission had been addressed, pointing to a detailed risk assessment on bycatch interactions and interactions with VMEs, and CCAMLR-consistent conservation measures and documentation scheme.
120. New Zealand acknowledged the honest attempt to address deficiencies, noting that its preferred process would be for the SC to re-evaluate whether the proposal is fully compliant with relevant CMM13 requirements.
121. Australia expressed some doubt that the area would be toothfish habitat and also noted the high presumed abundance of vulnerable deepwater sharks and emphasised the need for a high standard of bycatch mitigation. Australia noted that the relevant part of their adjacent EEZ is closed for fishing, and expressed that, should there prove to be toothfish, that cooperation as the relevant coastal State would be important. Australia appreciate the EU's offer to cooperate with neighbouring jurisdictions, should the proposal be acceptable.
122. The EU recalled that the SC Report states that revisions to this proposal would be submitted to the Commission.
123. In response to the concerns raised by Australia and New Zealand, the EU presented amendments to its proposal (COMM7-Prop14 rev2), noting that the scope has been broadened to also include Antarctic toothfish, and the bycatch rules have been adjusted to address shark-related concerns. Australia expressed some continued concern with the bycatch rules but acknowledged that with the data that would be obtained this year, it would assist the SC in reviewing the risks posed to deepwater sharks and any alternate appropriate management action.
124. The Commission adopted the proposal (Annex 7m).

b3. CMM for Enabling Research in the SPRFMO Area

125. New Zealand presented its proposal (COMM7-Prop15 and COMM7-Prop15.1), emphasising that it intends to cover research activities in the Convention Area and constitute a starting point to carry out research activities that are unlikely to impact on the status of fisheries resources.
126. Peru expressed interest to work intersessionally to further advance the proposal, noting that the next SC meeting offers a good opportunity in that respect. Following informal discussions, New Zealand formally



withdrew the proposal, noting that Chile, Australia and Peru expressed interest to participate in further intersessional work.

b4. CMM for Deepwater species in the SPRFMO Area

127. This proposed new CMM, put forth by Australia and New Zealand, was discussed in conjunction with Prop 03 on bottom fishing. Australia presented the proposal (COMM7-Prop16 and COMM7-Prop16.1), noting that it aims to ensure the long-term conservation and sustainable use of deepwater fishery resources, including target fish stocks as well as non-target or associated and dependent species. The proposal contains proposed TAC for stocks of orange roughy (*Hoplostethus atlanticus*), based on SC advice.
128. Australia and New Zealand then presented their significantly different suggested allocations for the Tasman Sea, the Louisville Ridge, the Westpac Bank, and the South Tasman Rise (COMM7-Prop16.2 and COMM7-Prop 16.3 respectively). New Zealand drew attention to relevant criteria in the Convention: historic catch and fishing patterns; contribution to science; contribution to conservation and management, and with respect to the Westpac Bank the interests of coastal states in straddling stocks as well as Article 4. Australia explained that its proposed allocation reflected its views that: there is a fundamental presumption that the high seas are for sharing; that Australia satisfies multiple criteria in Article 21(1) in respect of every feature in question; that while historical catch is important, it cannot be relied upon exclusively to determine allocation; that low catch, or no catch, is not a basis to exclude a Member from a SPRFMO fishery; that overfishing should never be rewarded; and that the existing bottom fishing measure, which constrained where and how much Australia could fish, made the playing field for the allocation negotiation uneven. Australia indicated that the ultimate priority was to adopt the new catch limits, and that if an allocation outcome could not be reached, an Olympic (competitive) model could be implemented. New Zealand emphasised that such a model would pose challenges for conservation, as well as for the Secretariat to manage, suggesting arbitration as a possible alternative approach.
129. Korea and Ecuador emphasised that a Member should be able to participate in the fishery before asked to make contributions in the scientific aspects of conservation and management.
130. Chile noted it will participate in the discussions, expressing hope for a consensus decision. Peru remarked that while the allocation looks straightforward as it should be based on the 10 criteria of Article 21, “the devil is in details”, stressing the difficulty to quantify the 9 criteria other than historic catches, which spills over discussions on allocation of other resources as well.
131. The Commission convened a WG, chaired by Kate Sanderson (Faroe Islands) and co-chaired by Andrés Couve (Chile) and Jorge Csirke (Peru) to address the allocation of orange roughy stocks in four areas of the Convention Area. Two different proposals for allocation put forward by Australia and New Zealand were discussed in the WG format as well as in a series of bilateral and trilateral meetings between the WG Chairs and the proponents, with the aim of developing a single proposal for decision by the Commission. Discussions resulted in a revised proposal (COMM7-Prop16 rev1) put forward by the Chair, based on advice from the WG chairs.
132. In commenting on the new proposal, the WG chair highlighted that careful consideration had been given to the extent to which all allocation criteria in Article 21, as well as Article 4 applied, noting that both Parties fulfilled most of the criteria, with the exception of those related specifically to developing states. The WG chairs had concluded that a proposed allocation of 100% to a single Party in the Convention Area (Westpac Bank) was not an acceptable starting point. Resolving this matter had therefore been key to furthering discussion on allocation in other areas. Discussion had also underlined that the desire to ensure economic viability for individual vessels was not a criterion for allocation. The WG chairs had, however, suggested to include in the proposed measure the same provisions for transfers of allocated quotas as have been applied in the CMM for jack mackerel, in order to help enable full utilisation of the resources within the framework of the proposed measure.
133. The WG chair thanked her co-chairs for their invaluable assistance and expertise in the process, as well as the delegations of Australia and New Zealand for their willingness to engage in frank and open discussions on what had been a difficult and protracted issue. She stressed the importance for the Commission of reaching



agreement on a new measure and noted that an agreed allocation of orange roughy in international waters would not only be breaking new ground for SPRFMO, but also more widely. Chairperson Urrutia informed Members that the new proposal has been circulated. The Russian Federation offered editorial amendments and China queried the CMM's title and the yearly catch limits' renewal.

134. New Zealand offered clarifications and added that, although the tabled proposal is not what they sought, they could accept the Commission's decision. Australia noted that the proposal is challenging as it may compromise Australia's ability to keep fishing, and that it was less than what they sought. After emphasising that "it is not a result we can embrace, but a result we sincerely respect", Australia accepted the Chairperson's proposal, reaffirming its strong relationship with New Zealand.
135. The Deep Sea Conservation Coalition highlighted the need for a specific review period for the SC to assess and recommend catch limits for non-target-species in the near future.
136. Chile suggested clarifying that the quantities referenced in the document regarding other target and non-target species refer to the evaluated area. Following a remark by the EU, Australia highlighted a provision for transferring part or all of the entitlement, similar to the jack mackerel CMM.
137. Peru supported adoption and highlighted the steps taken in the Working Group to address this "difficult, yet rewarding, exercise" to be taken into account in future relevant deliberations.
138. Chairperson Urrutia thanked all Members involved for their good will, noting that this is a good outcome for the Commission. The Commission adopted the proposal as tabled by Chairperson Urrutia (Annex 7n).

b5. CMM on Marine Pollution

139. The EU introduced its proposal (CTC6-WP05 rev2), originally part of the proposal to amend the existing CMM on Gillnets, and developed as a self-standing proposal for a new CMM during CTC6, highlighting inclusion of comments made by New Zealand to broaden the scope. New Zealand outlined the expansion to consider beyond abandoned, lost and discarded fishing gear through the introduction of preambular paragraphs that reference: the Sustainable Development Goal 14 (SDG14-life below water); the London Convention and the 1996 Protocol regulating dumping of wastes in the sea; and other provisions under the International Convention for the Prevention of Pollution from Ships (MARPOL) to include marine pollution oil, sewage and air pollutants from ships at sea. In addition, New Zealand pointed out inclusion of new text to encourage research in marine pollution and further education and training programmes.
140. Following consultations, the EU stressed that the proposal introduces amendments consistent with the International Convention for the Prevention of Pollution from Ships (MARPOL), including non-binding provisions for marine pollution other than plastic.
141. Chile queried a provision on "adequate port reception facilities", where plastics, stored at vessels, would be discharged. The EU responded that this obligation refers to the fishing vessels, thus not imposing additional obligations to the port State. Following a suggestion by China for incineration on board, the EU noted that it could be an option as long as the ashes are kept on board, with the Deep Sea Conservation Coalition drawing attention to relevant MARPOL's Annex 6, Regulation 16 provisions on shipboard incineration.
142. Korea indicated that it could go along with the adoption of the proposal, if all the other Members and CNCPs had no objections, although it still had some doubts as to whether it is appropriate for an RFMO to adopt a CMM of this nature. Korea further emphasised that this case should not affect Korea's position in future discussions on similar issues in other RFMOs. The EU responded that the effects of plastics on ecosystems constitute a threat to species under SPRFMO management, thus justifying such decisions.
143. The Commission adopted the proposed CMM (Annex 7o).



c. CMMs for review in 2019

c1. CMM 14b-2018 Exploratory Potting

144. The Cook Islands presented its proposal, urging for the special case of Small Island Developing States (SIDS) to be recognised, and noting that most of the requirements, posed by the SC, have been satisfied, with the rest being a matter of interpretation.
145. The operator, Great Southern Fisheries (GSF), presented the technical part of the proposed exploratory potting, offering extensive details on, among others: the scientific providers; data collection, analysis and dissemination; actions to minimise environmental impact; vessel conversion and preparation; VMS unit and camera details; fishing gear details; and suggested trips and allowable catch. He further addressed the SC comments, elaborating on: the discussion on the biomass estimation and the TAC; the interaction with VMEs; and specificities of the camera study. He concluded by stressing that currently everything is based on assumptions as the necessary data are not available, and urging not to allow the withdrawal of an already accepted CMM before data collection, as this would set a bad precedent for future exploratory initiatives.
146. Peru opined that the modifications introduced address most, if not all, the concerns raised by the SC, and supported the adoption of the CMM, adding that the SC will have the opportunity to review the first results of this exploratory fishery and advise in the next Commission meeting whether the fishery may continue.
147. Chile expressed concern, noting that not all relevant criteria of the CMM on exploratory fisheries were met. Some Members drew attention to the 3 options to take a precautionary approach to the TAC, recommended by the SC. Australia said that, notwithstanding the development points that they take seriously, they are concerned with the Commission's credibility if it establishes rules for exploratory fisheries and contradict them on the first implementation instance, noting the Performance Review Panel's criticism of the Commission's failure to apply the requirements of its exploratory fisheries framework to this proposal in 2018. Australia further: noted that the TAC seems to be more a commercial than an exploratory quantity, requesting consideration of the SC recommendation to substantially lower it; and, with some Members requesting formal submission of the additional information provided by the proponent.
148. Ecuador stressed they have no opinion about the TAC as no relevant data are available, offering support in that respect. The Russian Federation stressed the importance of scientific data and noted that the TAC seems high, suggesting carefully examining the scientific advice on this matter to reach consensus.
149. Noting that the proposal involves the development of a commercial operation, the USA stressed that the suggested TAC is a reasonable amount for a private enterprise to take up this exploration activity. China stressed the need for data to decide whether the catch limit is high or low, suggesting a revision of the CMM according to SC advice and expressed hope this fishery can start as soon as possible.
150. Vanuatu expressed concern regarding the Commission approving the CMM last year and, following significant investments by the proponent, introducing important changes this year, querying the message that this sends to industry.
151. The Deep Sea Conservation Coalition noted the recommendation of the Performance Review Panel that the Commission should apply the CMM on exploratory fisheries to all new proposals.
152. The Cook Islands introduced the amendments in their proposal (COMM7-WP21), noting, *inter alia*, that: the TAC has been modified to 600 tonnes for the first year and 300 tonnes for the second year; the definitions have been clarified; the fishing years stipulated and quantified; and that the vessel shall make all efforts to target every one of the 8 seamounts selected for each trip.
153. Many Members supported the proposal, thanking the Cook Islands for the amendments and commending their willingness to find a compromise. Vanuatu reiterated their concern about the process of making decisions and



transmitting them to the industry. Peru and Chile noted that the SC will be in a position to assess the relevant data and provide TAC-related, and other, recommendations in the future.

154. Australia said they will not oppose the proposal, but noted they are sensitive to the Performance Review Panel's feedback and criticism, and that complete proposals should be submitted to the SC as it is not the Commission's role to review scientific information.
155. The Deep Sea Conservation Coalition suggested using camera surveys, prior to fishing, intending to identify any VMEs and minimise adverse impacts.
156. The Secretariat noted that this is the first measure where the fishing and calendar years do not coincide, noting implications with the application of the catch limit.
157. Following editorial amendments, the Commission adopted the proposal (Annex 7p).

7. VESSEL MONITORING SYSTEM

158. The Commission did not formally discuss the VMS system beyond noting and agreeing with the recommendations made on this subject within the CTC report.

8. PERFORMANCE REVIEW RECOMMENDATIONS

159. Dr. Penelope Ridings, Chairperson of the Performance Review Panel, introduced COMM7-Doc06 and COMM-Doc07, explaining the applied methodology and commending the high level of response to the questionnaire used to collect views from Members, CNCPs and Observers. Noting the work being undertaken by the Commission to address the recommendations made, Dr. Ridings highlighted *inter alia*: further integration of the ecosystem approach in all fishery management; expansion of the database, including how the data sharing and accessibility are managed; continuation of scientific advice needed for the Jumbo Flying Squid; urgent action needed for a measure on bottom fishing; application of seabird mitigation to all fisheries; development of a measure on marine pollution; replenishment of the Contingency Fund and Accumulated Surplus Fund to be available for the Commission's objection procedure; and removal of any impediments to use of the Developing States Fund. She summarised recommendations made for the Secretariat, highlighting the recruitment of a Compliance Officer and commended the overall work of the organisation.
160. Many Members commended the Performance Review Panel for its efficiency and excellent performance. Peru highlighted key recommendations, including on: the Observer Programme; reviewing the structure of the Secretariat; and squid, noting the need for a relevant CMM. The EU and Australia stressed the SPRFMO's achievements, despite being at an early stage of development. The EU noted that the recommendations are representative of the beliefs of many, if not all, Members and pave the way for future work of the Commission. Australia added that the Panel held extensive consultations with Members, reporting on SPRFMO achievements, but also articulating challenges and informing difficult future decisions.
161. Chile expressed its satisfaction with the recommendations, emphasising that through responsible work, the organisation's performance will further improve. Korea expressed its appreciation for the Panel's recommendations, underscoring that they will help the Commission grow further in the future. China commended the Panel's excellent work, noting that, in the future, the Panel's composition should be regionally balanced, including both developed and developing countries, as well as coastal States and distant fishing countries.
162. New Zealand stressed that the mechanism of review is key in providing a "high-level helicopter view" of the SPRFMO, noting that those recommendations that are process-related should be implemented as soon as possible, taking into account budgetary implications. Regarding more substantive recommendations, New Zealand emphasised that deliberations on bottom fishing should progress during this meeting, leaving squid considerations as the next important piece of work for the Commission.



163. The Deep Sea Conservation Coalition welcomed the increased transparency and highlighted: the precautionary approach on deep water stocks; CMM development for species of concern, especially sharks and rays; and links with climate change.
164. The Commission expressed its gratitude and appreciation to all Performance Review Panel members for their hard work and Chairperson Urrutia presented Chairperson of the Performance Review Panel Dr. Ridings with a thank-you gift on behalf of the Secretariat and the Commission.
165. The Commission formed a working group under the Chair Sam Good Australia to consider the Performance Review Panel recommendations. The Commission provided responses to the Performance Panel recommendations (Annex 8), noting that this will require further work to guide future implementation of the recommendations which have achieved agreement.

9. Cooperation Priorities

a. Arrangements and Memorandum of Understanding (MoU)

a1. Extension to the Arrangement between CCAMLR and SPRFMO

166. Executive Secretary Dr. Rodriguez presented the relevant document (COMM-Doc08), noting the SC recommendation to renew and progress the arrangement between CCAMLR and SPRFMO.
167. Australia queried whether the Annex containing implementation activities may be separated from the MoU, as well as a provision referring to CCAMLR providing to SPRFMO summary Catch Documentation Scheme (CDS) data for all *Dissostichus* Catch Documents originating from catches in the SPRFMO Convention Area.
168. The Executive Secretary confirmed that the Annex had been already accepted by CCAMLR and any change would require a reset of the process.
169. After considering this information the Commission agreed to adopt the amendments contained in (Annex 9a), extending the arrangement between CCAMLR and SPRFMO.

a2. New MoU Proposals

a2.1. Permanent Commission of the South Pacific (CPPS)

170. The Secretariat introduced the proposal for a new MoU with the Permanent Commission of the South Pacific (CPPS) (COMM7-Prop19), noting main areas of cooperation, including institutional strengthening, training, and sharing of experiences, data and scientific information.
171. CPPS underscored that the MoU is very important for CPPS, looking forward to signing it with SPRFMO.
172. Some Members supported the proposal, noting that a lot of CPPS Members are also SPRFMO Members, and underscoring mutual benefits.
173. The Commission adopted the MoU with CPPS and the MoU was signed (Annex 9b).

a2.2. Network against IUU fishing of Latin American Countries (LAC)

174. The Secretariat presented the relevant document (COMM7-Prop20) and invited the Commission to consider the proposed MoU with the Network against IUU fishing of LAC.
175. Supporting the proposal and sharing national commitment to combatting IUU fishing, Peru presented the Network, noting it was created in October 2017 with the objective to facilitate the exchange of information and experiences for decision making to prevent and eliminate IUU fishing through cooperation between interested countries and organisations.



176. Many Members supported signing the proposed MoU with a minor editorial amendment suggested by the EU.
177. The Commission adopted the MoU with the Network against IUU fishing of LAC and the MoU was signed by Javier Atkins, Vice-Minister of Fisheries and Aquaculture of Peru and Executive Secretary Dr. Rodriguez (Annex 9c).

b. External cooperation engagements

b1. SPRFMO-Fishery Resources Monitoring System (FIRMS) Partnership

178. Executive Secretary Dr. Rodriguez presented the relevant document (COMM7-Doc09), noting the relevant SC recommendation, which fully supports that the SPRFMO participates in FIRMS, and stressing that two partnership scenarios are included in the document: either a partnership agreement or a collaborative engagement, inviting the Commission to express its preference.
179. Aureliano Gentile, Fisheries and Aquaculture Department, Food and Agriculture Organization of the UN (FAO), on behalf of the FIRMS Secretariat, provided background on the SPRFMO-FIRMS collaboration and presented the FIRMS partnership, its main objectives, products and services, as well the mutual benefits arising from potential partnership.
180. The Commission welcomed and instructed the Executive Secretary to progress the signing of a partnership agreement.

b2. SPRFMO participation in the Areas Beyond National Jurisdiction (ABNJ) process

181. Executive Secretary Dr. Rodriguez presented on SPRFMO-ABNJ Participation (COMM7-Doc10), recalling the SC recommendation to participate in ABNJ, cautious of costs. He further clarified that such costs required for travel have been budgeted and require no increase from past years.
182. The Commission agreed with the SC recommendation and encouraged the Secretariat to continue engagement with the ABNJ Process.

c. Priorities and criteria for potential MoUs

183. The Secretariat presented draft guidance (COMM7-Doc11), requesting Members to consider the proposal and further instruct the Secretariat which RFMOs in short- and medium- term should be approached, and on what basis this should be determined. Some Members identified which RFMOs should be selected as top priority, citing reasons based on either shared or similar marine resources, geographic proximity and/or opportunities for scientific collaboration. Executive Secretary Dr. Rodriguez, noted that the draft would be revised.
184. Following the document's revision and regarding relevant guidance to the Secretariat, the Commission decided to prioritise enhancing cooperation with the North Pacific Fisheries Commission (NPFCC), the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC).

10. OFFICE HOLDERS

a. Election of Commission Chairperson and Vice-chairperson

185. The Commission expressed appreciation for the commendable and efficient leadership of the current Commission Chairperson Mr. Osvaldo Urrutia, Chile. The Commission re-elected by acclaim Mr. Urrutia as the Chairperson of the Commission. The Commission also elected Ms. Kate Sanderson, Faroe Islands, as the Vice-chairperson.



b. Election of Subsidiary Bodies' Chairperson and Vice-chairperson

186. CTC Chairperson Mr. Andrew Wright, New Zealand, will continue to serve in the second year of his term. The Vice-chairperson of the CTC Mr. Luis Molledo, EU, will also continue in his position.
187. FAC Chairperson (Ms. Kerrie Robertson, Australia) and FAC Vice-chairperson (Mr. Gerry Geen, Vanuatu) were re-elected in their positions and the Commission acknowledged their commitment and excellent work during their first two-year term.
188. SC Chairperson Mr. Jim Ianelli, United States of America, will continue to serve in his position. SC Vice-chairperson Mr. Niels Hintzen, EU, will also continue in his position.
189. The Commission further commended and applauded the excellent work by the Secretariat and Executive Secretary Dr. Rodriguez in his first Commission meeting.

11. ADOPTION OF THE COMMISSION REPORT

190. The Commission thanked the interpreters Maria Jose Castro and Iciar Pertusa for their excellent work throughout the meeting.
191. The Commission commended and praised the outstanding assistance of the meeting rapporteurs, Tasha Goldberg and Asterios Tsioumanis.
192. The Commission adopted the report on Sunday, 27 January 2019 at 9:09 pm.

12. CLOSE OF THE MEETING

193. The meeting was closed at 9:09 pm on Sunday, 27 January 2019.

7th Annual Meeting of the Commission

23-27 January, The Hague, The Netherlands

COMM7-Prop01

<input checked="" type="checkbox"/> Amend	CMM 01-2018 on <i>Trachurus murphyi</i>
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Submitted by: VANUATU

Summary of the proposal:

During the 5th Commission Meeting (2017) Vanuatu presented a proposal entitled Interim Allocation of Jack Mackerel Quotas ([COMM5-Prop01](#)). The Meeting agreed that the proposal had merit but that more consideration needed to be given to its possible interaction with existing decisions. Members were encouraged to work inter-sessionally to address these issues.

The proposal was submitted by Vanuatu again to the 6th Commission Meeting in Lima, seeking to modify CMM 01-2017 to allow changes in the percentage shares of Members under certain circumstances. Specifically, if a member failed to reach a threshold level of utilisation of its quota, achieved by either fishing or leasing its quota to other members, it would forfeit any increase in its quota in the following year that would otherwise have occurred if the Jack mackerel Total Allowable Catch were increased. The forfeited quota would be available for redistribution by the Commission to members with little or no jack mackerel quota, or based on requests from members regarding special circumstances.

After gaining general support in the 6th Commission meeting, the proposal was withdrawn because one Member needed more time to adjust its internal procedures to allow international leasing of its jack mackerel quotas so that it would not be potentially disadvantaged by the proposal. The Commission requested Vanuatu to submit the proposal to the 7th Commission meeting. The proposal being submitted is the same as the final version that was withdrawn from the 6th Commission meeting.

If implemented, this proposal would potentially result in forfeited quota becoming available for redistribution by the Commission in 2023, following calculations by the Secretariat, using 2021 catch and quota transfers data.

Objective of the proposal:

The purpose of this proposal is to:

1. Promote increased utilization of jack mackerel quotas; and,
2. Provide fishing opportunities for Members or CNCPs with low or zero quota allocations.

To be filled out by the Secretariat:

Ref: COMM7-PROP01	Received on: 09 November 2018
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CMM 01-2019¹

Conservation and Management Measure for *Trachurus murphyi*

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 23 to 28 September of 2017 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCPS) included on the Commission Record of Vessels (CMM 05-2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *Trachurus murphyi* undertaken by Chile in areas under its national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2016 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCPS) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

Effort management

4. Relevant Members and CNCPS shall limit the total gross tonnage (GT)² of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1

¹ CMM 01-2019 supersedes CMM 01-2018, which supersedes CMM 01-2017

² In the event that GT is not available, Members and CNCPS shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

5. In 2018 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to 517 582 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
 - 9 bis. Beginning in 2021, for the purpose of being entitled to an increase in tonnage set out in Table 1 for 2023, Members shall reach a certain minimum annual utilisation level (annual threshold).
 - 9 ter. This annual threshold shall be 60% of the weighted average utilisation level of catch limits in Table 1 by all Members during the calendar year beginning two years before the annual meeting.
 - 9 quater. The annual threshold will be calculated taking into account the sum of each Member catches and quota transfers to other Members, irrespective of whether the transferred amount is fully caught. A quota transfer received from another Member will be added to the receiving Member's initial catch level for the purpose of calculating the annual threshold.
 - 9 quinquies. If there is an increase in the total allowable catch, Members not reaching the annual threshold shall not receive an increase in their quotas in Table 1 during that annual meeting. The tonnage of that Member would remain unchanged. Any increase in tonnage that would have otherwise been allocated to such Members may be assigned by the Commission to Members without an entitlement in Table 1, or to Members with the lowest entitlements. The Commission may also consider requests from members relating to special circumstances.
 - 9 sexies. All relevant information concerning the annual threshold and each Member's final catch and transfer figures will be provided to all Members and CNCPs by the Secretariat prior to the annual meeting.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2018 throughout the range of the stock should not exceed 576 000 tonnes.

Data collection and reporting

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2018 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
13. Except as described in paragraph 11 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2018 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
15. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2018 (VMS) and other relevant CMMs adopted by the Commission.
16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels³ they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2016 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2018 (Data Standards).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2018 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2018 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2018 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
19. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2018 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2018) agreed by the Commission, in order to provide updated advice on stock status and recovery.

³Fishing vessels as defined in Article 1 (1)(h) of the Convention.

21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
- (a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - (b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2018 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in respect of fisheries in adjacent areas under national jurisdiction

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

Special requirements of developing States

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

25. This Measure shall be reviewed by the Commission in 2019. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016) and CMM 01-2017 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.

Table 1: Tonnages in 2018 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	371 887
China	36 563
Cook Islands	0
Cuba	1 285
Ecuador (HS)	1 377
European Union	35 186
Faroe Islands	6 386
Korea	7 385
Peru (HS)	11 684
Russian Federation	18 907
Vanuatu	26 921
Total	517 582

Table 2: Percentages⁴ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

⁴ These percentages shall apply from 2018 to 2021 inclusive.

7th Annual Meeting of the Commission

23-27 January, The Hague, The Netherlands

COMM7-Prop02

<input checked="" type="checkbox"/> Amend	CMM 01-2018 on <i>Trachurus Murphyi</i>
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Submitted by: ECUADOR

Summary of the proposal:

This amendment aims at considering the special needs of Ecuador to develop the Jack Mackerel Fishery in the Convention Area. With the objective to obtain a significant allocation, Ecuador has decided to open its Exclusive Economic Zone to have the same opportunities of the other Members, without affecting the actual distribution of the quotas.

Objective of the proposal:

“Recognize the right of Ecuador to participate in the *Trachurus Murphyi* fishery in the Convention Area, in its condition of developing coastal state”.

Ref: COMM7-PROP02	Received on: 01 December 2018
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SPRFMO

Rationale of the Ecuadorian Proposal for Fisheries Allocation

It is necessary to recognize and keep in mind that under the principles of the Convention the allocation of the Fisheries, among them the *Trachurus Murphyi*, must be carried out in a strict framework of equity for all present and future Members of the SPRFMO, keeping relationship and consistency with these principles.

That a fair and equitable system must guarantee to all the Members of the Commission the opportunity to realize fishing activities under their own flags, for that reason they must receive a basic capacity allocation that allow them to promote the development of the fishery in a sustainable manner and sustained with their own vessels, if they wish; especially to developing coastal States whose economies depends on this activity, this under the framework of the Convention and other international laws on the subject.

Taking into account, always the commitment to apply the precautionary approach and make decisions based on the best available scientific and technical information, as established in Article 3 of the Convention, so that fisheries develop within sustainable levels of the resource.

The scientific report of 2018 establishes, that fortunately the *Trachurus Murphyi* fishery is healthy, that is the reason why the Scientific Committee for the year 2019 recommended a maximum catch quota of up to 591,000 tonnes, increasing 15,000 tonnes compared to 2018.

Considering the respect for the sovereign rights of States in their Exclusive Economic Zones (EEZs), it must be taken into account that the rights on the high seas belong to all States without any difference, and that transfers of quotas between States do not limit the rights of own allocation that must correspond to each State.

Ecuador during the meeting of the Commission of the year 2018, in view of the need to develop the *Trachurus Murphyi* fishery in its condition of developing coastal country with vessels that can fish under its flag, justified through economic and technical analysis the need to allocate a quota of 12,900 MT for optimum operation with a new vessel and 6,500 MT for optimal operation with a used vessel.

With this background and in order to increase the allocation to develop its own fishery, Ecuador has decided to open its Exclusive Economic Zone (EEZ), as established in Art. 20 (4) (iii) so this allocation does not affect the rights of other Members, the allocation in reference is 11,523 MT, which added to the current allocation of 1,377 MT would reach a total of 12,900 MT.

In accordance with the provisions in Numeral 92 of the Explanatory Memorandum to assist the Review Panel established under Article 17 of the SPRFMO Convention to consider the Objection by Ecuador to the Conservation and Management Measure for *Trachurus Murphyi* (CMM-01-2018) dated May 14, 2018, presented by the secretariat, there is a determined amount of 58,418 tonnes, which correspond to the Exclusive Economic Zones of Ecuador and Peru, from which the amount assigned to our country will come.

It must be considered at all times that the opening of the Exclusive Economic Zone involves cooperating with the Commission for issues of stock assessment, scientific research, conservation and ordering of resources that are fished in the Commission Area, in accordance with the stipulations in Article 20 (4) (iii) of the Convention, but the access to any fishing

activity in this area by vessels flying another flag other than the flag of Ecuador, shall be prohibited and control shall be strictly carried out by the Ecuadorian Fisheries and Maritime Authorities, sovereign right prevailing at all times according to the guidelines found in the United Nations Convention on the Right to the Sea (UNCLOS) part V.

That the Review Panel, which in 2018 knew Ecuadorian's claim recognizing the need to resolve it, suggested that it should be resolved by the Commission, for which it commented a set of remedies, having mentioned that: *Possible Ways Forward. 126. During the hearing...*, "The Review Panel therefore invites de Commission to consider exploring the possibility of adjustments to the allocation transfer system that would address the sorts of difficulties experienced by Ecuador, such as by incorporating the notion of a right of first refusal or elements thereof, for Members and CNCPs with no or very low allocations. An alternative could be for individual Members to revise their domestic transfer procedures to assist Ecuador directly within the framework of the present system"

In addition to the possible solution routes established by the Review Panel, Ecuador shows its desire to cooperate by suggesting this proposal, which aims to include within the fishing activity of a developing country in the area of the Convention, without harming the rights of other Members, through a voluntary and sovereign mechanism.

PROPOSAL

Assign to Ecuador a quota of 11,523 MT, which would reach a total quota of 12,900 MT, which will allow it to develop its own fishery in the Convention area, by virtue of the opening of its Exclusive Economic Zone as established in the Article 20 (4) (a) (iii), for the Area of Application of the Regional Organization of the Fisheries of the South Pacific.

CMM 01-2019¹

Conservation and Management Measure for *Trachurus murphyi*

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 23 to 28 September of 2017 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

BEARING IN MIND, the recommendations made by the Review Panel in order to assist the requirements established by Ecuador

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05- 2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under its national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2016 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

¹ CMM 01-2019 supersedes CMM 01-2018, which supersedes CMM 01-2017

Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)² of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch Management

5. In 2019 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to XXXXX tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. The Commission agree to give the allocation of 11.523 tonnes to Ecuador additionally of their current quota of 1,377 tonnes, because they express their consent for fisheries of *Trachurus Murphyi* undertaken in areas under its national jurisdiction and according to the special needs of developing coastal states.
7. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
8. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
9. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
10. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
11. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2019 throughout the range of the stock should not exceed 591.000 tonnes.

Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2018 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.

² In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.

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14. Except as described in paragraph 12 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2018 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
 15. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
 16. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2018 (VMS) and other relevant CMMs adopted by the Commission.
 17. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels³ they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2016 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
 18. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2018 (Data Standards).
 19. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2019 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2019 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2019 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
 20. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2018 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
 21. The information collected under paragraphs 12, 14 and 19, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2019) agreed by the Commission, in order to provide updated advice on stock status and recovery.
 22. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - (a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;

³ Fishing vessels as defined in Article 1 (1)(h) of the Convention

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- (b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
23. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2018 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries In Adjacent Areas Under National Jurisdiction

24. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

Special Requirements of Developing States

25. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

26. This Measure shall be reviewed by the Commission in 2019. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016) and CMM 01-2017 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
27. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2019 to 2021 inclusive.

Table 1: Tonnages in 2018 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	XXX.XXX
China	XX.XXX
Cook Islands	X
Cuba	X.XXX
Ecuador	XX.XXX
European Union	XX.XXX
Faroe Islands	X.XXX
Korea	X.XXX
Peru (HS)	XX.XXX
Russian Federation	XX.XXX
Vanuatu	XX.XXX
Total	XXX XXX

Table 2: Percentages related to the catches referred to in paragraph 11.

Member / CNCP	%
Chile	XX.XXX
China	X.XXX
Cook Islands	X.XXX
Cuba	X.XXX
Ecuador (HS)	X.XXX
European Union	X.XXX
Faroe Islands	X.XXX
Korea	X.XXX
Peru (HS)	X.XXX
Russian Federation	X.XXX
Vanuatu	X.XXX

⁴These percentages shall apply from 2018 to 2021 inclusive



7th Annual Meeting of the Commission

23-27 January, The Hague, The Netherlands

COMM7-Report ANNEX 8

(COMM 7 - WP 15_Rev7)

Table of Performance Review Recommendations to the Commission

Paragraph	Recommendation of the Panel	Responsible body/bodies	COMM Response	Response from other bodies	2019	2020	Lead
Conservation and management							
<i>3.1 –Status of fishery resources</i>							
51 (b)	Recommends that the Commission maintain a precautionary approach to setting catch limits for the Jack mackerel stock.	COMM	Endorses the Recommendation, noting that the Commission has adopted a SC workplan that applies the precautionary approach				
<i>3.2 Ecosystem Approach</i>							
68 (b)	Recommends that the Commission apply a highly precautionary approach to fishery management decisions in the absence of sufficient information to permit the application of an ecosystem approach to management.	COMM	Endorses the Recommendation, noting its links with the fundamental objectives of the Convention (Article 2)				
<i>3.3 Data Collection and Sharing</i>							
100 (b)	Recommends the Commission and Scientific Committee regularly review data collection requirements to ensure they align with the needs of new or revised CMMs, while recognising the challenges to SPRFMO database management through the addition of new data collection, access and storage requirements and Notes the need for investment in building the capacity of the SPRFMO database to meet these challenges.	COMM SC FAC	Instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.	FAC: The FAC notes that in order to have a database serving its purpose, the Commission should invest accordingly on the needs of having an operational database.	To be considered by SC in 2019	[X]	
						Commission to respond to this recommendation	

100 (c)	Recommends that the Commission strengthen the timelines for the submission and independent verification of catch and effort data for the Jumbo flying squid fishery and Urges such measures to be adopted together with a general management measure for that fishery.	COMM SC	Instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.		To be considered by SC in 2019	Commission to respond to this recommendation	
100 (d)	Recommends that the Commission implement more effective and comprehensive bycatch data collection and reporting, particularly but not limited to dependent and associated species in each fishery and identified species of concern, the collection of sufficient biological data to support the development of reliable stock assessments for all fisheries, and the extension of data collection programmes to include environmental data and other data to assist in estimating potential impacts on non-target species.	COMM SC	Instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.		To be considered by SC in 2019	Commission to respond to this recommendation	
100 (f)	Recommends that the Commission review, as a matter of priority, dataset sharing processes and procedures, both for data exchange within SPRFMO and externally, and provide specific guidance to the Secretariat with a view to removing impediments to the exchange and sharing of data.	COMM SC	Recognises that this has been indicated as a high priority by the Panel and instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation as a priority		To be considered by SC in 2019	Commission to respond to this recommendation	
100 (g)	Recommends that the Commission work towards a standardisation of scientific data collection processes and procedures for observers across the different fisheries, and consider mechanisms to harmonise coordination of data collection with other regional and/or sub-regional observer programmes.	COMM SC	Instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.		To be considered by SC in 2019	Commission to respond to this recommendation	
3.4 Quality and provision of scientific advice							
108 (a)	Recommends that the Commission take urgent action to implement management measures for the Jumbo flying squid fishery, and for precautionary measures to be put in place until sufficient information is available to undertake a reliable stock assessment.	COMM SC	Recognises that this has been indicated as a high priority by the Panel and instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation as a priority		To be considered by SC in 2019	Commission to respond to this recommendation	
3.5 Adoption of CMMs							

166 (d)	Recommends that the Commission take urgent action to update the management measures for bottom fisheries, adopt a precautionary approach to the conservation of all deepwater stocks, and implement a SPRFMO-wide approach to the management and protection of VMEs as a matter of priority.	COMM	<i>[Notes that the recommendation has been substantially addressed by the adoption of a revised bottom fishing measure at COMM7.</i> <i>Notes that the impact of any bottom fishing on VMEs outside the Evaluated Area in the revised bottom fishing measure will be assessed through the exploratory fisheries measure and notes that where there is no fishing there is no impact on VMEs from fishing.</i>				
166 (e)	Commends the work undertaken thus far to minimise bycatch of seabirds and Recommends that the Commission extend the CMM relating to seabird bycatch to all fisheries in the SPRFMO Convention Area.	COMM	There was not consensus on this recommendation.				
166 (g)	Recommends that the Commission and its subsidiary bodies strictly apply the procedural and substantive requirements of CMM 13-2018 for all new and exploratory fishery proposals.	COMM SC CTC	Instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.	CTC: Endorses this recommendation	To be considered by SC in 2019	Commission to respond to this recommendation	
166 (h)	Recommends that the Commission review current efforts to give effect to Article 3(1)(a)(ii) to ensure impacts on non-target and associated or dependent species are taken into account, and Article 3(1)(a)(vii) which requires marine ecosystems to be protected, in particular those ecosystems which have long recovery times following disturbance.	COMM	Endorses the recommendation and commits to keep under review the Commission's efforts to give effect to Articles 3(1)(a)(ii) and 3(1)(a)(vii)				
166 (i)	Recommends that the Commission develop conservation and management measures for species of concern, with particular priority to be given to measures to prevent adverse impacts of fishing activities on	COMM	Endorses the recommendation, noting its links with work on ecological risk assessments being lead by Australia.				

166 (j)	Recognises the difficulty of reaching allocation decisions, including in the Jack mackerel fishery, Considers that the Article 21 allocation criteria provide a solid foundation for decision-making, and Encourages the continued consideration of these criteria in making future allocation decisions for both Jack mackerel and other stocks.	COMM	Endorses the recommendation				
166 (k)	Recommends that the Commission develop a timeline for the implementation of measures to give full effect to Article 3(1)(a)(x) on measures to prevent pollution and waste originating from fishing vessels, discards, catch by lost gear or abandoned gear and impacts on other species and marine ecosystems.	COMM	Notes that the recommendation is substantially addressed by the CMM adopted by COMM7 on Fishing Gear and Marine Plastic Pollution in the SPRFMO Convention Area				
178 (b)	Recommends that the Commission maintain and enhance monitoring of fishing capacity systematically in all fisheries, especially where there is a risk that catch limits may be exceeded in future	COMM	The Commission will keep under review the need to maintain and enhance monitoring of fishing capacity in SPRFMO fisheries				
178 (c)	Recommends that the Commission consider the implementation of fishing effort limits in the Jumbo flying squid fishery based on existing fishing capacity as a precautionary interim measure pending further scientific and management advice from the Scientific Committee	COMM SC	Instructs SC to provide advice to the Commission sufficient to enable its consideration of this recommendation.				
Compliance and Enforcement							
<i>4.1 Flag State Duties</i>							
202 (e)	Recommends the translation of those measures identified in d) above into the languages necessary to improve Members and CNCPs' understanding of their obligations;	COMM FAC CTC	Supports the CTC response to this recommendation	CTC: Notes that English is the official and working language of the Commission and its subsidiary bodies. Suggests that the translation of measures into languages other than English should be the responsibility of Members and CNCPs. Notes that there may be opportunities for Members to share translations of measures			
				The FAC supports the CTC recommendation.			

202 (h)	Recommends that the Commission, in conjunction with the Secretariat, consolidate, and make publicly available, a list of capacity building needs and requests identified by Members and CNCPs in order to track progress, prioritise the needs and requests, and facilitate the ability of others to meet them	COMM CTC SC	Requests Members and CNCPs to advise the Secretariat of their capacity building needs, noting the utility of having these needs consolidated in a single place for consideration by the Commission. Notes that New Zealand has agreed to lead intersessional work on this issue in 2019. Instructs the SC with considering this recommendation in 2019 and providing advice to the Commission on how capacity building needs relevant to the work of the SC might be better managed	CTC: Recommends that the Commission requests Members and CNCPs to advise the Secretariat of their capacity building needs, noting the utility of having these needs consolidated in a single place for consideration by the Commission. Notes the need to avoid over-burdening the Secretariat. Notes that capacity building needs may be easier to identify if audit points are developed as per recommendation 202(f). Notes that New Zealand has agreed to lead intersessional work on this issue in 2019 Recommends that the Commission task the Scientific Committee with considering this recommendation	To be considered by SC in 2019 NZ to lead intersessional work	Commission to consider SC advice related to this recommendation	NZ
<i>4.3 Monitoring, Control and Surveillance</i>							
252 (b)	Encourages the Commission to focus on implementation of these MCS measures, rather than the adoption of new tools at this time	COMM FAC CTC	Endorses this recommendation	CTC: Endorses this recommendation			
252(d)	Recommends that the Commission continues to work towards the adoption of its own high seas boarding and inspection regime tailored to the Convention, its Members and CNCPs, and its fisheries.	COMM CTC	Notes that good progress has been made in resolving technical aspects of the proposed high seas boarding and inspection measure Notes that the USA has agreed to lead any further intersessional work on this issue as required.	CTC: Notes that this recommendation is related to a proposal being considered by CTC6 where divergent views remain. Notes that the USA has agreed to lead any further intersessional work on this issue as required.	USA to lead intersessional work as required		USA

252 (f)	<p>Recommends that the Commission prioritise hiring a professional staff member with compliance expertise to lead the Secretariat's efforts to implement the MCS measures already adopted and to analyse the data captured through these measures.</p> <p><i>(see also recommendation 386(d): Recommends that if the SPRFMO Observer Programme is to be properly implemented as part of the suite of MCS measures, the Commission should prioritise hiring a professional staff member with compliance expertise, as recommended above ;)</i></p>	COMM CTC FAC	<i>The Commission accepted the offer and thanks Chile for making the offer.</i>	<p>CTC: Recommends that the Commission give consideration to hiring a compliance expert including consideration of the timing of such a hire, recognizing the need for compliance expertise within the Secretariat staff and that the constrained budget environment will need to be considered.</p> <p>Chile offered for one year a professional with Compliance expertise in support of the Secretariat tasks. Members thanks Chile for its generous offer. FAC is grateful for the offer and recommends the Commission to accept this generous offer from Chile.</p>			
4.4 Follow-up on Infringements							
278 (c)	<p>Recommends a modest investment of resources to facilitate increased engagement of the SPRFMO Secretariat with colleagues from other RFMO Secretariats, which will provide a benefit to the Commission beyond the expenditure of resources in expertise gained, shared lessons learned, use of best practices and avoid spending time and money developing tools, templates, processes and procedures that already exist.</p>	COMM CTC FAC	<p>Supports the CTC's response to this recommendation</p>	<p>CTC: Acknowledges the benefits that may flow from the SPRFMO Secretariat engaging with the Secretariats of other RFMOs. Acknowledges that it is the role of the Commission and its subsidiary bodies to develop and adopt its own tools, templates, processes and procedures. Recognizes that such engagement can be accomplished within normal budget constraints.</p> <p>The FAC supports the CTC response.</p>			

278 (d)	Recommends additional engagement by the Commission with other international regional organisations that could serve as force multipliers on MCS issues (e.g., the Forum Fisheries Agency's Regional Surveillance Centre).	COMM CTC	Supports the CTC's response to this recommendation. Notes that the Commission has adopted proposals for memoranda of understanding between SPRFMO and CPPS and REDPESCAINDNR.	CTC: Acknowledges the benefits that may flow from the engagement by the Commission with other international or regional organisations on MCS issues without expressing a view on the merits of engagement with any particular organisation. Notes that the Commission will consider the Proposal for an MoU with the REDPESCAINDNR.				
Decision-Making and Dispute Settlement								
5.1 Decision-making								
304 (b)	Recommends that the Chair of the Commission continues to provide clear guidance on when attempts to achieve consensus have been exhausted.	COMM	Endorses this recommendation					
304 (c)	Recommends the continued use of informal discussions in attempts to achieve consensus.	COMM	Endorses this recommendation					
304 (d)	Notes the decision and observations on decision-making of the Article 17 review panel in 2018, and Urges their consideration by the Members	COMM	Endorses this recommendation					
5.3 Dispute Settlement								
320 (g)	Recommends that Members consider making a special budgetary allocation at the first meeting following a use of the Article 17 review panel process to reimburse the SPRFMO budget in order to cover the costs associated with support to the most recent Article 17 review panel proceedings.	COMM FAC	<i>The Commission supports FAC response also noting that no such provision has been made in next financial year budget.</i>	The FAC Support this recommendation in principle and noted the importance of having funds available to resource the Commission's contribution to any Review Panel established under Art 17.				
320 (h)	Recommends the Commission take steps to ensure the effective implementation of the findings of an Article 17 review panel at the first meeting following the decision of the panel	COMM	Endorses this recommendation					
320 (k)	Notes the Commission in the wake of the 2013 use of the Article 17 review panel process indicated the process was intended as an unusual occurrence, and Urges Members to continue to view the Article 17 review panel process in that light.	COMM	Endorses this recommendation					
International Cooperation								
6.1 Transparency								

328 (b)	Recommends that the Commission give consideration to developing a process for inviting observers to meetings where their participation would facilitate the meeting	COMM	Endorses this recommendation and instructs the Secretariat to develop such a process		Secretariat to develop a proposed process	Secretariat to present a proposed process to COMMS	Secretariat
328 (c)	Recommends that the Executive Secretary notify observers of the establishment of a review panel under Article 17 of the Convention and of the findings and recommendations of the review panel	COMM	Endorses this recommendation and instructs the Executive Secretary to provide such notifications to observers				
338 (c)	Recommends that the Secretariat develop a communications strategy in order to enhance communications with Members, CNCPs and observers, to cost-effectively increase the visibility and profile of SPRFMO in the wider international fisheries community, and to ensure that there is a targeted approach to communications which bring direct benefits to the organisation.	COMM	Endorses this recommendation noting that the FAC has endorsed a related paper presented by the Secretariat				
6.2 Relationship with CNCPs							
348 (a)	Recommends that further information is provided to CNCPs by the Commission on the benefits of becoming party to the SPRFMO Convention	COMM	Endorses this recommendation and instructs the Secretariat to engage with CNCPs in this regard				
348 (b)	Recommends that the Commission further encourages CNCPs to cooperate with the Commission in implementing its conservation and management measures, including data submission requirements, and that the Commission apply a consistent approach to the	COMM	Endorses this recommendation reminding the obligation of complying with CMMs to all CNCPs				
6.3 Relationship with non-members or non-CPs							
353 (a)	Recommends that the Commission continue to encourage non-Members and non-CNCPs found to be fishing within the Convention Area to cooperate with the Commission, including through requesting CNCP status.	COMM	Endorses this recommendation				
353 (b)	Urges the Secretariat to include in the SPRFMO Annual Administrative Report information on the outreach to non-Members and non-CNCPs that has been undertaken in the previous year.	COMM	Endorses this recommendation and instructs the Secretariat to follow this recommendation				
353 (c)	Recommends that Members and the Secretariat take a more proactive approach towards identifying those vessels of non-Members and non- CNCPs that are undertaking fishing operations in the SPRFMO Convention Area	COMM	Endorses this recommendation				

6.4 Cooperation with International Organisations							
360 (b)	Recommends that the Commission develop a cooperation strategy which targets cooperation towards organisations and activities which would provide a direct benefit to SPRFMO	COMM	Endorses this recommendation noting that the Commission has instructed the Secretariat to prioritise engagement with 3 RFMOs (NDEFC, WCPEC, IATTC)				
360 (c)	Recommends that in addition to the development of any necessary formal linkages through MOUs, the Secretariat engage informally with colleagues in other RFMOs to learn and share experiences of operational activities, not only in the MCS area as	COMM	Endorses this recommendation				
6.5 Special Requirements of Developing States							
369 (b)	Recommends that the Commission and Secretariat encourage the use of the Developing States budget category for more than funding the attendance of participants from developing countries at SPRFMO meetings and that the Commission work to remove any impediments to accessing the Special Requirements Fund for technical	COMM	Endorses the recommendation noting that implementation will take time and require consideration of dedicated resources. Notes that USA has agreed to lead related work intersessionally.	FAC small working group to be convened, lead by the USA	USA to lead intersessional work as required		USA
Financial and administrative issues							
7.1 Availability of Resources for Activities							
386 (c)	Encourages the Secretariat to prepare an estimate of the additional financial cost which is likely to arise from proposed conservation and management measures	COMM FAC	Supports the FAC response to this recommendation	The FAC encourages Members to engage with the Secretariat when a proposal has financial impacts or influence on the Secretariat work.			
7.2 Efficiency and Cost-Effectiveness							
396 (b)	Recommends that the Commission, on advice of the Executive Secretary, give consideration to reviewing the structure of the Secretariat to ensure the most cost effective use of staff resources, and to investing additional resources in building the capacity of the Secretariat to analyse scientific and MCS data.	COMM FAC	Supports the FAC response and instructs the Executive Secretary to consider this recommendation and to advise the Commission accordingly no later than the 2020 annual meeting.	The FAC supports the recommendation and task the Executive Secretary to give consideration and to advise the Commission accordingly no later than the 2020 annual meeting.	Executive Secretary to consider the recommendation	Executive Secretary to report to COMM8	Executive Secretary
396 (c)	Recommends that the Commission set aside a half day for the Finance and Administration Committee in advance of the annual Commission meeting, and following the annual meeting of the Compliance and Technical Committee	COMM FAC	<i>The Commission supports the FAC response.</i>	The FAC considered the recommendation but agreed that the current arrangement should be retained, but this could be revisited in the future.			



7th Annual Meeting of the Commission

23-27 January, The Hague, The Netherlands

COMM7-Report ANNEX 7k CMM for *Trachurus murphyi* (COMM7- WP18)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on **23-9 to 28-14 September of 2018** and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2016) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile, to fisheries for *Trachurus murphyi* undertaken by Chile in areas under its national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2016 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

5. In 201~~98~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~517 582~~ **531 061** tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically on the basis of domestic legislation or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in ~~2018-2019~~ throughout the range of the stock should not exceed ~~576 000~~ **591 000** tonnes.

Data collection and reporting

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2018 (Data Standards) and using templates prepared by the Secretariat and

¹In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



available on the SPRFMO website.

12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis.
13. Except as described in paragraph 11 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2018 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
15. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2018 (VMS) and other relevant CMMs adopted by the Commission.
16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2016 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2018 (Data Standards).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2018-2019 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2018-2019 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2018-2019 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations.
19. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2018 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2018-2019) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi*

²Fishing vessels as defined in Article 1 (1)(h) of the Convention.



in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:

- (a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - (b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2018 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in respect of fisheries in adjacent areas under national jurisdiction

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

Special requirements of developing States

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

25. This Measure shall be reviewed by the Commission in ~~2019~~2020. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), ~~and~~ CMM 01-2017 (*Trachurus murphyi*) and CMM 01-2018 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.



Table 1: Tonnages in ~~2018~~ 2019 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	371-887381 572
China	36-56337 515
Cook Islands	0
Cuba	1-2851 319
Ecuador (HS)	1-3771 413
European Union	35-18636 102
Faroe Islands	6-3866 552
Korea	7-3857 578
Peru (HS)	11-68411 988
Russian Federation	18-90719 400
Vanuatu	26-92127 622
Total	517-582531 061

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive.

8TH ANNUAL MEETING OF THE COMMISSION MEETING REPORT

14-18 February 2020

Port Vila, Vanuatu

Document name: SPRFMO COMM8-Report

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The Chairpersons of the subsidiary bodies and working groups –Mr Andrew Wright, Ms Kerrie Robertson, Dr James Ianelli, Ms Victoria Hallum, Ms Kirstie Knowles–, are acknowledged for their significant contributions.



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8TH ANNUAL MEETING OF THE COMMISSION

Port Vila, Vanuatu, 14-18 February 2020

COMM8 – Meeting Report

1. Opening of the Meeting

1. Commission Chairperson Mr Osvaldo Urrutia (Chile) opened the 8th Commission meeting of the SPRFMO, expressing gratitude to the government of Vanuatu for hosting and to the private fishing sector for its assistance. Commenting on the difficulties posed by a global health emergency to the delegations of China and Chinese Taipei, he called on Members to show flexibility to ensure the legitimacy of adopted measures. Addressing concerns regarding exceeding the catch limit for jack mackerel in 2019, Chairperson Urrutia called on Members to continue working under the spirit of cooperation to achieve constructive solutions for sustainable fishing. Chairperson Urrutia commended the leadership of Executive Secretary Dr Rodríguez and the entire Secretariat, noting the continued intensification of their workload, and invited constructive consideration of related proposals during the FAC meeting (Speech available as Annex 11a).

a. Adoption of the Agenda and Participation

2. The Commission adopted the agenda (COMM08-Doc01_rev1), available as Annex 1, and the annotated agenda (COMM08-Doc02_rev1) without amendments. A list of participants is available in Annex 2.

b. Meeting documents

3. The Commission adopted the list of meeting documents (COMM8-Doc03_rev3) without amendments.

c. Annual meeting programme and timetable

4. Chairperson Urrutia noted that the timetable may change during the meeting according to the needs and priorities, and the Commission adopted the programme and timetable (COMM08-Doc04) without amendment. Available as Annex 3.

2. Membership

a. Status of the Convention

5. New Zealand, as the Depositary of the SPRFMO Convention, provided an update of the status of the Convention (COMM7-Doc05), noting that there have been no new notifications of ratification or accession, and encouraging CNCPs to work towards ratification of the Convention.

3. Scientific Committee (SC)

a. Report of the SC7 and 2020 SC Workplan

6. SC Chairperson, Dr James Ianelli, presented the report and scientific advice of the 7th SC meeting, which was held in Havana, Cuba, from 7 to 12 October 2019. He reviewed progress made in the 2019 Workplan on assessments and requirements for future data collection for jack mackerel, deepwater and squid fisheries, ecosystem approaches on marine management and exploratory fishing, as well as progress for the Observer Programme.



7. Regarding jack mackerel and commenting on the stock status, SC Chairperson Ianelli noted that the general trend is quite positive, but uncertainty exists regarding a number of parameters. This uncertainty, along with the depleted stock status, led the Commission to adopt a precautionary approach and follow the guidelines provided in the Commission's rebuilding plan ("Adjusted Annex K").
8. Regarding the new Management Strategy Evaluation (MSE) that is underway, SC Chairperson Ianelli noted that two options are before the Commission. One would take longer and would provide updates every year, the other was an intersessional option, where a subgroup within the SC meets several times (via web meetings), also seeking some intersessional feedback from a Commission subgroup. He noted the latter option would be more efficient.
9. SC Chairperson Ianelli underscored the SC's recommendations that, for future years, the haul-by-haul data continue to be made available by the Members of the offshore fleet, via the SPRFMO Secretariat, for the analysis of standardised catch per unit effort (CPUE).
10. Regarding deepwater aspects, SC Chairperson Ianelli indicated that additional work is being undertaken on VME encounters and indicators and this will be presented at SC08.
11. On squid, SC Chairperson Ianelli highlighted a two-day workshop, held prior to the SC meeting. A number of topics were covered by the workshop including discussions about the observed phenotypic change resulting in smaller individuals. The SC noted that an observer coverage plan be developed for at least three years duration. Such a programme would lead to a more extensive evaluation on the squid fishery and the extent of observer coverage needed.
12. Many Members commended the SC and SC Chairperson Ianelli for the SC7 report.
13. The Commission also acknowledged the significant efforts of SC Vice-Chairperson Mr Niels Hintzen (European Union) for his leadership in chairing SC7.
14. On Korea's question related to the scientific justification for the two options for observer coverage for squid, either 5 observers per Member or in the range of 5-15% for a period of three years, SC Chairperson Ianelli explained that having two options is a way to move forward with data collection. SC Vice-Chairperson, Niels Hintzen, noted that when data from within the SPRFMO Convention Area was not available, preliminary analysis from comparative studies in other regions, provided by China, was used to inform SC recommendations.
15. The European Union welcomed the reported increase for the jack mackerel stock, and noted the SC recommendation for bottom fishing, including those relating to weight thresholds for VME indicator taxa before 2021. On future projections regarding the stock of jack mackerel, the European Union requested more detailed explanation on the implications and the methodology being reviewed for growth estimates.
16. Peru highlighted that the SC advice for the recovery of jack mackerel has led to increased biomass, agreeing with the SC recommendation to increase the catch limit by 15% to allow 680,000 tonnes. Further expressing agreement with the SC Workplan and having a new assessment of the management strategies for jack mackerel to help rebuild the stock, Peru highlighted commitment to continue work with Chile in the relevant Working Group.

b. 2020 SC Workplan

17. SC Chair Dr Ianelli invited Members to comment upon the multi-annual workplan proposed by the SC, noting it is quite lengthy and includes requests for scientific analysis on a series of issues as well as three workshops.
18. New Zealand introduced a document on the Commission's information needs on the bycatch of seabirds and the design of observer coverage. New Zealand stressed that the purpose is to seek guidance from the Commission on its information needs on the bycatch of seabirds and other species of concern. Presenting a graph on the relationship between observer coverage and estimations' reliability, New Zealand emphasised that, when designing observer coverage, the fishery needs to be understood and some sort of objective has to be clearly stipulated.



19. The United States of America reminded Members that the SPRFMO observers are more than scientific observers, covering more than data needs, noting that the observer coverage discussion is a complex one.
20. Australia supported having the suggestion reflected in the workplan for the SC, reiterating that human observers are not the only means for data collection and offering editorial suggestions on the recommendation.
21. The Commission endorsed that these recommendations become part of the SC workplan. (Annex 8a).
22. The Commission agreed that it requires information sufficient to:
 23. identify most bycatch issues related to seabirds and other species of concern in each of the major SPRFMO fisheries in the short to medium term;
 24. provide quantitative estimates in the medium term for all species of seabirds combined and some of the more common bycatch species.
25. The Commission agreed to communicate this information need to its SC. The Commission instructs the SC to assess and advise by no later than the Commission's 10th meeting in 2022 the observer coverage or other observations needed in each major fishery to deliver this information
26. Chile presented a manual on best practices of the industrial purse seine fishery of the jack mackerel from the South–Central zone of Chile. Chile underscored the value of the manual considering that 80% of the world's supply of jack mackerel comes from Chile, aimed to clearly communicate the different methods of avoiding discards and bycatch, as well as identification of Endangered Threatened or Protected species, with both English and Spanish versions available.
27. SC Chairperson Dr Ianelli highlighted the request to update the management procedures for jack mackerel contained in MSE Management Objectives (COMM8-WP17), noting the aim to have an operating model used for simulating data and testing management procedures to integrate uncertainty on stock structure hypotheses; growth and growth variability; natural mortality; productivity; and fishery distribution patterns.
28. SC Chairperson Dr Ianelli indicated that the original goal of the Commission to rebuild the stock above target level had been met, suggesting that the Commission provide a modification of overarching objectives to guide management procedures.
29. The Cook Islands noted that the objectives listed were mostly biological and that other considerations, such as TAC variability, CPUE, and bycatch, including some of those considered as secondary objectives and the paper needed serious consideration. The consequences of any objectives, including those proposed in the paper required review before the Commission could adopt them. Ecosystems and/or socioeconomic objectives also needed to be included, and since these are unlikely to be modelled this would not impact the planned modelling work which could continue in parallel. The development of a monitoring strategy was also considered a key element required in MSE development. The Cook Islands proposed a workshop devoted to developing the objectives be held between CTC8 and COMM9 in 2021.
30. The European Union volunteered to lead intersessional consultations with Members on the drafting of the elements of the revision of the MSE objectives.
31. SC Chairperson Dr Ianelli invited the Cook Islands and other Members to contribute to the SC small working group on the matter through intersessional web meetings, coordinated by European Union representative Martin Pastoors.
32. Peru clarified that it would be possible to provide more than one representative to participate in the work.
33. SC Chairperson Dr Ianelli confirmed that the general concepts proposed by Vanuatu to address carryover allocation of jack mackerel will be investigated in the work.
34. SC Chairperson Ianelli highlighted the management strategy will be referred to as an Annex 8b, reflecting the discussions of the Commission.



35. The Commission endorsed the SC recommendations and the SC Multiannual Workplan is available in Annex 8a.

4. Finance and Administration Committee (FAC)

a. Report of the FAC 7

36. The Chairperson of the FAC, Ms Kerrie Robertson (Australia), presented the report (FAC7-Report) and recommendations of the seventh meeting of the FAC held during the eighth Commission Meeting. FAC Chairperson Robertson noted that the financial position of the Organisation is stable but could be further improved. FAC Chairperson Robertson further noted that the FAC recommended: that the Executive Secretary bring back a staffing strategy next year; recruiting a compliance manager; and acknowledging the exceptionally high level of service from the Secretariat and the Executive Secretary by increase in remuneration.
37. FAC Chairperson Robertson highlighted the following FAC recommendations to the Commission, including *inter alia*:
- accepting the Annual Financial Statements (FAC7-Doc04, FAC7-Doc04.1, FAC7-Doc04.2 and FAC7-Doc04.3);
 - accepting the Auditors Report, noting no concerns were identified (FAC7-Doc04);
 - appointing the accounting firm Crowe Howarth as the independent auditor for conducting audit work for the financial statements of the Organisation for Financial Years 2019-2020, 2020-2021 and 2021-2022.
38. The Commission agreed to adopt amendments to: the staff regulations of the Commission as contained in COMM8-Prop23_rev1 (Annex 6a); the policy for secondments and internships as contained in document COMM8-Prop24_rev1 (Annex 6b); and the Rules of Procedure for the Commission as contained in COMM8-Prop25_rev2 (Annex 6c).
39. A lengthy discussion focused on whether the Executive Secretary should circulate Members' responses. The Commission noted that the meeting's report should indicate that the Executive Secretary should circulate responses unless the Members indicate differently.

b. Budget

40. Reminding Members that the FAC had requested the Commission to finalise outstanding discussions on the budget, FAC Chairperson Robertson highlighted changes in COMM8-WP15_rev3, including *inter alia*: reflecting costs for the Compliance Manager; increasing the salary for the Executive Secretary; including full costs for database development; adding NZ\$ 20,000 for the 10th anniversary campaign; and increasing to \$40,000 the budgeted cost of the SPRFMO Observer Programme accreditation provider.
41. The Commission clarified that the budget will include:
- an allocation of NZ\$ 20,000 into the Contingency fund to advance the balance of this fund towards a level which would support three months operational cost;
 - An allocation of NZ\$ 55,965 towards the developing States fund, which in the financial year 2020-2021 would be covered by a voluntary contribution already provided by the US;
 - An allocation of NZ\$ 80,000 towards scientific support.
42. The Commission acknowledged the recent voluntary contribution made by the United States of America and accepted the contribution from CALAMASUR.
43. The Russian Federation expressed a principle position that the budget should follow the principles of zero nominal growth and cost-efficiency.



44. China announced a voluntary contribution of USD 20,000 to support the stock structure and genetic studies regarding the jumbo flying squid.
45. China expressed concern regarding the increased cost of the accreditation regarding the observer programme because it was just put forward in recent days with the European Union noting that the European Union grant covers the increased cost.
46. The Commission addressed the budget per category and approved all categories.
47. The Commission adopted the budget as amended (Annex 6d), and the Schedule of Contributions per Member (Annex 6e).

c. Date and Venue of the next meetings of the Commission and Subsidiary bodies

48. FAC Chairperson Robertson reported that FAC recommended the Commission accept the offer of the Russian Federation in Saint Petersburg to host the 2021 meeting of the Commission: from 21-23 January for CTC, and 25-29 January for the Commission meeting; and Peru's prospective offer to host the 2022 meeting of the Commission.
49. The FAC also confirmed New Zealand will host the 2020 SC8 meeting in Wellington, New Zealand, 3-8 October 2020 (SC8 will be preceded by a 2-day workshop on bottom fishing); and Panama offered to host the 2021 SC meeting, and Korea offered to host the SC meeting in 2022.
50. The Commission warmly accepted these offers.

5. Compliance and Technical Committee (CTC)

a. Report of the CTC 7

51. CTC Chairperson Wright presented the report of the CTC7, held 10-12 February 2020 in Port Vila, Vanuatu. Noting an overall improvement among Members in compliance issues, as well as a decrease in priority non-compliance, he explained that the Secretariat went through the Draft Compliance Report and provided a compliance status of "non-compliant, no further action" to instances where the obligation had been met but that the information was provided after the required deadline, this allowed the CTC to focus on the more technical and serious compliance issues.
52. CTC Chairperson Wright highlighted that there were many areas where compliance had improved including for Panama (CMM 02, CMM 04, CMM 05, CMM 10), Korea (CMM 05, CMM 12), Liberia (CMM 05, CMM 12) and the Russian Federation (CMM 05, CMM 10). Additional information about the Final Compliance report is included in Section 5b of this report.
53. On matters concerning implementation of current CMMs, CTC Chairperson Wright highlighted that:
 - a number of Members raised concerns about the situation whereby the reported catches of *Trachurus murphyi* exceeded the level of 591,000 tonnes by nearly 7%, stating their strong support for measures aimed at preventing such a circumstance occurring again;
 - a number of Members expressed their general support for VMS data being better utilised, also cautioning against using VMS data as the only source to verify vessel activity in the Convention Area;
 - a decision needs to be made by the Commission on the CTC recommendation to adopt the data request template that would be used for scientific research purposes (Annex 8c);
 - the Port States Measures (PSM) CMM is an important tool in the Monitoring, Control and Surveillance (MCS) toolbox and any improvement in this measure will improve SPRFMO's monitoring in general; and
 - the Commission, CTC, SC and FAC Chairs have provided an assessment on the suitability of the shortlisted accreditation providers, concluding that MRAG is the most suitable provider.



54. CTC Chairperson Wright provided a summary of the CTC discussions and recommendations regarding the provisional IUU Vessel List. Additional information per vessel is included in Section 5c of this report.
55. On applications for renewing the CNCP status of Curaçao, Liberia, and Panama, the CTC recommended that all three applications be accepted, and the CTC expressed its regret that Colombia had decided not to renew their CNCP status.
56. On proposals to amend CMMs, CTC Chairperson Wright reported that 12 proposals were introduced and discussed, of which 5 proposals were to amend CMM 01-2019 (*Trachurus murphyi*). He indicated that the CTC recommended the adoption of the European Union proposal regarding CMM 04-2019 on IUU Vessel List (COMM8-Prop09_rev1), adding that consideration of the other proposals would continue throughout the Commission.
57. Regarding proposals presented by the Secretariat to make minor amendments to CMMs, CTC Chairperson Wright noted the introduction of a table of review dates for current CMMs (COMM8-WP03_rev1) as an effort to summarise the distribution of work over the coming years, noting that the dates do not prohibit any Member from bringing forward proposals. The Commission agreed to adopt new review dates when considering each proposal.
58. The CTC also considered the Performance Review Panel's recommendations (CTC7-Doc16), highlighting the results of discussion on the 10 outstanding items. The Commission agreed to take up all the recommendations provided by the CTC, including the reappointment of Andrew Wright (New Zealand) as Chairperson for a second term.
59. The Commission adopted the CTC7 Report. The Commission further adopted the template for data requests to be used for scientific research purposes and approved the selection of MRAG as an accreditation provider.

b. Final Compliance Report

60. The Commission considered the Provisional Compliance Report provided by the CTC (COMM8-WP07).
61. The European Union underscored the obligation for Members to submit their reports in a timely manner to allow for an informed discussion in the CTC regarding assessing compliance.
62. Ecuador confirmed that an Ecuadorian vessel, the MARIA DEL CARMEN IV, is registered in the SPRFMO Record of Vessels, clarifying that it is a support vessel and VMS data are being transmitted to the SPRFMO. Ecuador further confirmed that the points of contact have been updated. The Secretariat confirmed that the relevant information has been received.
63. The Commission took note of Ecuador's clarification and adopted the Final 2020 Compliance Report (Annex 4).

c. Examination of the Current and Draft IUU Vessel List

64. Regarding the Draft IUU List, CTC Chairperson Wright noted that, in light of the effective action taken by New Zealand and the commitment to provide quarterly reports on the progress and outcome of the prosecution case, the CTC reached consensus to remove the AMALTAL APOLLO from the 2020 Draft IUU Vessel List. In response to a Member's query, CTC Chairperson Wright clarified that since the CTC had decided to remove the vessel from the 2020 Draft IUU Vessel List, the list is empty and there is no decision to be made by the Commission.
65. CTC Chairperson Wright noted that three vessels (VLADIVOSTOK 2000, NAKHODKA and BELLATOR) are on the current IUU Vessel List.
66. On the VLADIVOSTOK 2000, CTC Chairperson Wright noted that extensive discussions were held in relation to the change of ownership and the planned activities of the vessel, specifically whether or not the vessel would remain operating in the Russian Exclusive Economic Zone (EEZ). Many Members had requested further information from the Russian Federation during the CTC meeting, which was provided. CTC Chairperson



Wright indicated that the CTC had reached consensus, recommending to the Commission that the VLADIVOSTOK 2000 be removed from the IUU Vessel List.

67. The Commission adopted the CTC recommendation to remove the vessel VLADIVOSTOK 2000 from the IUU Vessel List.
68. Regarding the vessel NAKHODKA, CTC Chairperson Wright summarised the CTC discussions, noting that consensus could not be reached during the meeting, and the CTC recommended that the item be reopened for discussion during the Commission meeting.
69. Following discussions, the Commission decided to remove the vessel NAKHODKA from the IUU Vessel List on the basis that it has been satisfied that effective action has been taken by the State.
70. On the BELLATOR, CTC Chairperson Wright summarised the request by Angola to delist the vessel and the discussions during the CTC meeting, noting that consensus could not be reached, and the CTC recommended discussions continue during the Commission meeting.
71. The Commission noted that the essential information to prove the change of ownership is still lacking, stressing that there is insufficient information for the vessel to be removed from the IUU Vessel List.
72. Following discussions, the Commission did not reach consensus for delisting the BELLATOR. Members requested that further communication between the Secretariat and Angola continue, explaining the reasons for the decision and encouraging them to become a Member to the SPRMFO and the Fish Stocks Agreement and further discuss any concerns in line with the CTC recommendation.
73. The Commission adopted its 2020 Final IUU List (Annex 5).

d. Status of Cooperating non-Contracting Parties (CNCPs)

74. The Commission reviewed the recommendations made by the CTC and agreed to renew the CNCP status for Liberia, Curaçao and Panama. The 3 CNCPs renewed their commitment to work towards achieving the Commission's objectives. The Commission thanked Panama for its commitment and for the information provided in their action plan (COMM8-WP04). The Commission took note that both Curaçao and Liberia sent letters expressing regret for not being able to attend COMM8. Noting with concern that Colombia had decided not to apply for CNCP status this year, the Commission requested that the Secretariat write to Colombia to encourage to reapply as CNCP.

6. Conservation and Management Measures (CMMs)

75. The Commission noted that all CMM-related proposals had been introduced in detail during the CTC deliberations.

a. Amendments to current CMMs

i. CMM 01-2019 Trachurus murphyi (Prop01)

76. The European Union presented the main amendments to the CMM brought forth by its proposal, including: clarifying the legal obligations regarding stock management; increasing the frequency of reporting when a certain level of catches is reached; introducing a system of payback when quotas are overshot; and introducing reporting obligations on the compatibility of measures in waters under national jurisdiction.
77. Peru noted with concern that the amendment fails to take into account specific provisions of the Convention, extending the faculties of the Commission to maritime zones that are not the subject of the Convention and affecting the rights of coastal states.
78. Chile fully supported the reinforcement of compatibility and cooperation duties in the Convention.
79. The United States of America appreciated the effort to increase compatibility of measures being taken by coastal States.



ii. CMM 01-2019 Trachurus murphyi (Prop02)

80. Vanuatu introduced its proposal aiming at creating a more flexible system to help avoid the situation where large catches of jack mackerel within areas of national jurisdiction result in the fishery-wide TAC set by the Commission being breached. Recognising that obligations on compatibility under Article 4 of the Convention are mutual, Vanuatu underscored that its proposal aims to find a mutually acceptable, constructive way forward. Vanuatu outlined their suggestion that undercatches of unallocated quotas be carried forward to following years, up to a maximum of 10% of the total catch limit, Vanuatu noted the erratic nature of catches in the Peruvian area of national jurisdiction and that the carry over mechanism proposed would allow the unallocated quota to increase during years of poor catches to be used later by Peru when catches increase, improving the flexibility of the system while not encroaching on the sovereign rights of Peru in the management of jack mackerel in their waters. Vanuatu further emphasised the inclusion of the proposal in the SC Management Strategy Evaluation (MSE) analysis to ensure that there are no sustainability issues.
81. Peru noted that the suggestion is technically correct, but needs further biological justification, stressing that the biomass has increased and thus the catch limit can be increased, also urging discussing the existence of two stocks of jack mackerel.
82. Noting that in principle they agree with what Vanuatu is trying to achieve, the European Union and Chile expressed concerns regarding risks for the biomass, emphasising the topic's consideration during the SC MSE discussions.
83. Korea queried the divergence in the suggested catch limit to the one proposed by the SC.
84. Noting that the proposal tries to reach a solution through cooperation, Ecuador expressed concerns of a scientific and technical nature.

iii. CMM 01-2019 Trachurus murphyi (Prop03)

85. Ecuador introduced its proposal that aims to consider the special needs of Ecuador as a developing coastal state and to develop its jack mackerel fishery in the Convention Area. Ecuador highlighted it has decided to give the express consent to open its EEZ in order to ensure the long-term conservation and sustainable management of jack mackerel, in accordance with the objectives of the Convention.
86. Ecuador summarised the proposal to assign an additional quota of 11,487 tonnes to Ecuador, reaching a total quota of 12,900 tonnes, by virtue of their special needs as a developing coastal State, their opening of their EEZ and the actual good health conditions of the resource as indicated in the SC7 assessment.
87. Many Members welcomed Ecuador's decision to give its express consent to apply CMM 01 to the area under its national jurisdiction. The European Union, with Vanuatu, United States of America and the Faroe Islands acknowledged efforts undertaken by Ecuador to provide economic justification in the proposal, indicating support for the objectives and willingness to work together to support a solution.
88. Peru and China expressed interest to better understand the sources for the increased quota to assess which would be most reasonable and sustainable.
89. Korea welcomed Ecuador's intention to give its express consent to apply CMM 01 to the area under its national jurisdiction and expressed interest to discuss further in a working group.

iv. CMM 01-2019 Trachurus murphyi (Prop04)

90. Chile introduced its proposal, which includes amendments to the preamble, and in the sections of general provisions, catch management and cooperation in respect of fisheries in adjacent areas under national jurisdiction. Chile's proposal aims to strengthen compatibility of the measures applicable to straddling species, as well as improvements to data collection and reporting to enhance the control of catches. Chile highlighted that, when total catches have reached 70% of the limit, the deadline for delivering catch reports is reduced and the reporting frequency is increased to every 15 days, within 10 days of the end of that period.
91. The European Union and Vanuatu fully supported the proposal.



92. The Russian Federation noted good ideas contained in the proposal and looked forward to working group discussions.
93. Peru disagreed with the proposal based on potential lack of compatibility with measures in national jurisdiction, noting that further explanations on effective and compatible measures for the sustainability of the jack mackerel resource will be shared during a working group.
94. Korea offered general support, suggesting consideration of merging with the European Union relevant proposal (COMM8-Prop01).
95. Faroe Islands acknowledged potential controversy in both Chile's and the European Union's proposals (COMM8-Prop01) and suggested they could be addressed in the informal setting of a working group.
 - v. *CMM 01-2019 Trachurus murphyi (Prop05)*
96. Peru introduced its proposal clarifying the scope of application of the CMM in regard to the distribution of jack mackerel without prejudice to the sovereignty rights that coastal States may exercise in their jurisdictional waters. Peru explained that the proposal is not only an issue of political principles over sovereign rights but is further based on the best available scientific evidence, underscoring that the timing of setting the catch limit nationally differs from that of the Commission, allowing the incorporation of updated scientific information. Peru further emphasised that when setting the catch limit nationally, biomass is not only calculated based on fisheries data and algorithmic estimations, but also includes the results of hydro-acoustic surveys as well as other types of surveys and analysis of fishing mortality and exploitation rates.
97. Peru further delivered a technical presentation, focusing on the productive characteristics of the Peruvian Sea, presenting graphs on catches in relation to primary productivity as well as the vulnerability of the Peruvian Sea to environmental conditions. Peru also focused on the decisions taken by the SPRFMO Commission with respect to jack mackerel allocations over time, stressing that historic unjustness on quota allocations should be remedied.
98. Chile underscored that they also set catch limits at the national level at a time different than the Commission, however if the Chilean allocation decided by the Commission is inferior to the one adopted by Chile, they fully comply with that decision, pursuant to the provisions of its fisheries legislation.
99. Peru responded that Chile has expressed its consent for the Commission to be able to make decisions regarding its jurisdictional waters, which is not the case for Peru.
100. The US noted that the SC takes both stock hypotheses into account during its deliberations and its recommendations are agreed by all Members. The US further emphasised that, while sovereign rights should be respected, so should compatibility obligations, pointing to solutions within SPRFMO provisions to address allocation issues.
101. China suggested that the five proposals be merged in a single proposal on jack mackerel, noting that when the catch limit is exceeded in a given year, appropriate deductions from next year's allocation should be considered as well as quotas could be transferred if unutilised.
102. The European Union stressed the issue of compatibility, noting that the scientific arguments Peru noted have not been discussed in the SC, and emphasising that they want to ensure that the same situation will not resurface next year. The European Union further noted that both stock hypotheses are taken into account when the SC sets the catch limit, adding that relevant, additional concerns by Peru should be addressed during the MSE discussions.
103. Peru stressed that a firm position needs to be achieved in relation to the two-stock hypothesis, noting that this is one of the bases and justification for their fisheries management decisions.
104. Australia, commenting generally, expressed its strong concern that the limit for jack mackerel had been exceeded in 2019, noting that this affects the credibility of the Organisation and the successes it has had so far in rebuilding this stock. Australia urged Members to find a resolution that aligns with the limit advised by the SC.



105. Vanuatu offered a historic view of the depletion of the jack mackerel stock, and the difficulties caused to the Commission in 2013 in reaching agreement on national catch limits by the large catches taken by Peru in its national waters in 2011 and 2012 when other Members participating in the jack mackerel fishery were exercising severe catch restraint aimed at rebuilding the jack mackerel stock. Peru questioned the cause and responsibility for the depleted resources, indicating that the collapse mentioned by Vanuatu was primarily caused by the large catches exerted on the jack mackerel stock in previous years by other Members. Peru added that the fishing mortality caused by Peruvian catches was minimal compared to the fishing mortality caused by other Members.
106. New Zealand noted the importance of implementing the CMM for the effective management of fisheries for jack mackerel throughout the range and the compatibility of CMMs established for fisheries resources that straddle in the Convention Area and areas under national jurisdiction.
107. Chairperson Urrutia suggested addressing matters in an informal working group, and proposed Mrs. Victoria Hallum as a friend of the Chairperson to guide the discussions. The Commission agreed to proceed this way. The mandate of the working group was to discuss consequences of the 2019 catches by Peru along with the four proposals regarding jack mackerel in order to bring recommendations to plenary on how to proceed as well as the proposal submitted by Ecuador.

vi. CMM 01-2019 Chairperson's proposal on jack mackerel

108. Chairperson Urrutia introduced COMM8-WP22, incorporating some of the substantive elements from proposals by the European Union, Vanuatu, Ecuador, Chile, Peru as well as outcomes from working group discussions on jack mackerel as reported in COMM8-WP25 into one single Chairperson's proposal.
109. Members discussed and offered amendments on sections referring to: cooperation in respect of fisheries in adjacent areas under national jurisdiction; catch management; and data collection and reporting.
110. In text related to catch management, Peru proposed that the Executive Secretary inform Members and CNCs when catches have reached 70% of an amount, rather than limits set.
111. In text related to data collection and reporting, Peru proposed revisions to clarify that when total catches have reached 70% of the amount, the Members and CNCs agree to increase frequency of reporting. Responding to a question by Korea, Peru explained that these changes aim to avoid future confusion and maintain accordance with the Convention.
112. Chairperson Urrutia introduced the proposal for catch management for Ecuador as contained in COMM8-WP22, explaining that 4,514 tonnes was calculated bearing in mind the inclusion of Ecuador's national jurisdiction waters to the Convention Area, as half of the difference of the 2019-20 increase of the unallocated part of the measure that increased from 2019 to 2020. Vanuatu noted that the total catch in paragraph 5 of this proposal should be adjusted upwards by the 4,514 tonnes.
113. Members exchanged opinions regarding the new proposal.
114. Ecuador noted the lowered amount and requested referencing the proposal by Vanuatu to account for catch history.
115. The United States of America, supported by Australia, Faroe Islands, and Cook Islands noted that table 1 recognises only the High Seas allocation for Ecuador, and not the inclusion of their EEZ, which would increase the total sum for their allocated amount. These Members considered that it was appropriate for table 1 to reflect Ecuador's full allocation as occurred with the other coastal State that had given its express consent.
116. The European Union, associating with comments by the United States of America, expressed support for the proposal previously made by Vanuatu, and suggested that it be the basis for further deliberations.
117. Australia and Cook Islands emphasised that it would be appropriate for Ecuador to receive a higher allocation given the significance of their steps to include their EEZ within the scope of the CMM.
118. Faroe Islands, with the Russian Federation, supported the new proposal prepared by Chairperson Urrutia, expressing skepticism for the proposal provided by Vanuatu as possibly preempting forthcoming joint



allocation discussions planned for 2022. In addition, Faroe Islands, with Korea, proposed that the SC consider the possibility to include a mechanism for members with small quotas – defined as being under 10,000 tonnes or under 2% in table 2 to have the option of accumulating quota between 2 years. In other words, carrying forward their entire quota to the following year in order to have a level of tonnage that can help make fisheries operations actually viable in the second year. It would be a condition in such a mechanism that quota accumulated in this way must be fished and not be transferred.

119. Faroe Islands noted that it would work with Korea to pursue scientific feedback from the SC on the idea of such a mechanism, with the view to bringing a proposal to the next Commission meeting.
120. Chile and Peru queried what will happen next year given this allocation is considered extraordinary.
121. Ecuador emphasised the importance of knowing the allocation basis, pointing to the proposal by Vanuatu, and stressing that a real, substantive solution is needed and can only be provided by the Commission.
122. Australia, supported by many Members, noted that there was no textual hierarchy in Article 21 (1) of the Convention and no single sub-criteria took precedence over any other.
123. Vanuatu noted that many Members seem to agree that the unallocated portion is the right place from which to derive the suggested Ecuadorian quota, noting that a consequence of the Ecuadorian decision to allow its zone to be subject to the CMM is that in effect it loses access to the unallocated quota and would from now on require a quota allocated by the Commission to catch jack mackerel both inside and outside its EEZ. Vanuatu emphasised the importance of the choice of catch history years having a logical and relevant basis. Vanuatu stated that the 2009-2016 period corresponds to the beginning of catch limits of jack mackerel under the interim measures and to the final year of catch data used to develop the current five-year allocation agreement. Vanuatu noted that while different historic catch years can be used and produce different outcomes, the proposal is anchored to important and relevant dates in the history of the management of the jack mackerel fishery.
124. The European Union reiterated that Ecuador has done everything they have been asked to do, suggesting going back to the Vanuatu proposal as a reference point for further discussion.
125. Peru made a presentation on historical catches, stressing that in the choice of years in Vanuatu's proposal there are two key years, 2010 and 2011, that had exceptionally high catches in both Ecuador and Peru. Peru emphasised that since 2002, they have established a strict regulation stating that jack mackerel can only be used for direct human consumption, thus lowering catch levels, contrary to Ecuador, therefore taking 2010 as a basis for Vanuatu percentage calculations was unfair and other later years should be used for this calculation. Peru further noted that the first CMM for jack mackerel was adopted when the Commission started its work in 2013, and the current CMM on jack mackerel was drafted in 2017, the negotiation for this 2017 CMM had been difficult and were based on the general conditions are reflected in the catches and percentages corresponding to those years. Peru emphasised that it would be completely unfair and inconsistent to take now a broader range of years than what we did in 2017, noting that both Vanuatu's proposal and the compromise solution proposed by the Chairperson are unbalanced. Peru suggested that if the Commission want to increase Ecuador's allocation, each Member should be equally affected, proposing that 0.66% of the total allocation of each Member be transferred to Ecuador.
126. Vanuatu, with the United States of America, introduced changes to mirror their previous proposal, including: adjusting the total catch of jack mackerel in paragraph 5 of CMM 01 to 618,001 tonnes; removing reference to the High Seas for Ecuador in table 1 and replacing the quota with 8,594 tonnes, and changing percentage for Ecuador to 1.2638% in table 2. Vanuatu clarified that the amount of quota is derived from the unallocated quota alone.
127. Following discussions, many Members, noted their support for the proposal tabled by Vanuatu. Peru opposed the proposal, noting it is unfair and unfounded.
128. The European Union requested the footnote to table 2 be factual, indicating that the percentages apply 2018-2022 inclusively as amended in 2020, and, with Chile and Cuba, agreed with the proposal.



129. Peru opposed the proposal by Vanuatu, noting that they agree and support the increased quota for Ecuador, but oppose the source for the allocation. Peru reiterated that the allocation is unfair and unfounded.
130. Chairperson Urrutia referred to Article 16 (decision making), noting that all efforts to reach a decision by consensus have been exhausted and reminding Members that, on questions of substance, decisions shall be taken by a $\frac{3}{4}$ majority of the Members of the Commission casting affirmative or negative votes.
131. Chairperson Urrutia called on Members to express their votes. 13 Members cast a positive vote, 1 Member cast a negative vote and 1 abstained.
132. Peru requested that their opposition is noted in the meeting's report, reiterating that the way this decision is taken is not equitable, expressing their concern about the allocation of an extraordinary quota, and reserving their right to further express their objection at the right time and place in the future. Peru also announced that it would make a statement on this respect.
133. The Commission adopted the proposal to amend CMM 01-2019 (Annex 7a).
- vii. CMM 02-2018 Data Standards (Prop06)*
134. New Zealand introduced its proposal to update the data standards CMM to reflect changes in other CMMs in recent years and clarify data collection and reporting requirements, including submission of Annual Reports to the SC. New Zealand highlighted the inclusion of suggestions from the working group in the revised proposal (COMM8-Prop06_rev3), such as reflecting the updated observer CMM, adding a review clause to update the CMM regularly, adding information regarding the measurement of squid, and noted that additional changes were not able to be made because they would require significant changes to the SPRFMO database.
135. Korea registered its concern regarding a provision that data should be collected regarding FAO species code and estimated live weight of catch retained on board for all species caught by the fishing event, including target, bycatch and species of concern. Korea expressed concern regarding the practicability of the requirement as well as regarding the reliability of the information to be collected by fishers. Korea added that it hopes that it would have a chance to review the particular requirements in the near future.
136. Following discussions, New Zealand introduced the revised proposal (COMM8-Prop06_rev4).
137. China proposed text to reference the maximum operating depth in annex 4 on standards for squid jigging fishing activity data.
138. Following discussions, New Zealand introduced a revised proposal (COMM8-Prop06_rev5).
139. The Commission adopted the proposal to amend CMM 02-2018 (Annex 7b).
- viii. CMM 03-2019 Bottom Fishing (Prop07)*
140. The European Union introduced its proposal to make the bottom fishing framework more precautionary for the protection of Vulnerable Marine Ecosystems (VMEs) and to improve data collection (COMM8-Prop07_rev1). In particular, the proposal amends the weight thresholds for triggering the VME encounter protocol in any one tow for a single VME indicator taxa and raises the minimum observer coverage level for bottom line gear to at least 30% of hooks set.
141. New Zealand noted that the European Union proposed workshop to look at spatial management approaches has been included in costs and planning for the SC8 in New Zealand.
142. On the potential uncertainty of the level of protection currently afforded by existing management measures, in light of the different results from scientific models presented by Australia and New Zealand, Members raised the importance of using a precautionary approach.
143. SC Chairperson Ianelli identified the challenge to objectively measure the level of precaution and accompanying benefits.
144. New Zealand noted that SC's suggestion that any adjustment to the management approach should consider a broad suite of scientific management, regulatory, and economic aspects, and a need for some sort of analysis on conservation gains and costs associated with time and resources.



145. The Deep Sea Conservation Coalition stressed that the Commission should take a precautionary approach to respond to SC7 recommendation to adjust thresholds, asking whether the European Union proposal could achieve this.
146. The European Union, supported by the United States of America and Australia, urged Members to take actions to afford the right level of protection to prevent significant adverse impacts on VMEs, and to take a precautionary approach where there is scientific uncertainty, noting that lowering the VME indicator taxa thresholds would help to achieve this.
147. The High Seas Fishing Group urged Members to consider the socio-economic impact on people's livelihoods of increasing limits and closing areas for fishing.
148. Australia noted that a closed area is not analogous to a protected area, and the two terms could not be used interchangeably. Australia further noted that scientific analysis was ongoing.
149. Following discussions, the European Union introduced an amended proposal Rev1 setting the weight threshold for stony corals at 60 kg.
150. Australia thanked the European Union for their willingness to work with the participants in the fishery and appreciated the objectives the European Union was trying to achieve. Australia noted that while it could go along with the proposal to reduce VME indicator thresholds, it was not in a position to support increasing human observer coverage, noting that this is an issue of data collection better addressed through the bottom fishing impact assessment process that would occur in 2021. Australia stated it would be prepared to review observer coverage levels based on the outputs of that process and was fully willing to work with the European Union and others on the impact assessment process leading up to the SC.
151. Vanuatu expressed discomfort about the reduction in the weight threshold for stony coral, considering it premature ahead of results of current research on New Zealand and further SC discussions on the issue that would better inform the Commission on this matter.
152. The Cook Islands considered that any adjustment to the management approach should consider a broad suite of scientific management regulatory and economic aspects as noted by the SC, and ideally any adjustment to the thresholds should be made next year informed by the work the SC will be undertaking this year. However, it proposed that the threshold for stony coral increases to 80 kg in the interim.
153. The United States of America supported the precautionary approach assumed in the revised proposal, noting that the role of the Commission is to balance risk with information available to avoid significant adverse impacts on VMEs.
154. The High Seas Group viewed the current thresholds expressed in the CMM 03-2019 as hyper-precautionary and out of step with thresholds set in other RFMOs, urging Members to consider the risk of job loss by increasing thresholds, thus compromising the purpose of the Convention as expressed in Article 2 to ensure the long-term conservation and sustainable use of the fishery. The HSWG statement is available as Annex 11d.
155. The Deep Sea Conservation Coalition expressed the view that, while uncertainty exists, it is important to mitigate risk, recalling that the weight threshold only represents what is brought up by net and not the full impact under the surface, expressing hope that in the review in 2021, the precautionary approach is further enhanced.
156. The European Union proposed to maintain the current observer coverage minimum level for bottom line gear and that the Commission review the appropriateness of that level in 2021 taking into account the bottom fishing impact assessment and the related SC advice and recommendation.
157. Vanuatu remained concerned about the change in threshold for stony coral and requested time for further informal deliberations.
158. Following further discussions, the European Union proposed to set the weight threshold for stony corals to 80 kg, and to maintain the minimum level of observer coverage for bottom line gear at a minimum of 10%. The



European Union further noted that the Commission shall review the appropriateness of the minimum observer coverage at its annual meeting in 2021.

159. Vanuatu and New Zealand expressed concerns regarding potential negative impact on the fishing industry, noting lack of clarity in the relevant scientific discussion and forthcoming scientific research that will inform the discussion. Vanuatu and New Zealand requested taking note of their concerns, noting that they will not block consensus but would expect the stony coral weight also be reviewed in the full review of the measure.
160. The Commission adopted the proposal to amend the CMM (Annex 7c).

ix. CMM 03a-2019 Deepwater species (Prop08)

161. New Zealand introduced its joint proposal with Australia to revise the orange roughy catch limits based on recommendations from the SC and enable improved implementation and management of the adopted catch limits for orange roughy (COMM8-Prop08_rev2). New Zealand noted that, following discussions in the CTC meeting, comments and feedback have been received from Members and observers, and taken into account.
162. The Deep Sea Conservation Coalition reiterated its concerns relating to the absence of a limit to which the catch can be exceeded as well as regarding carry-forward provisions.
163. New Zealand responded that the DSCC concerns have been taken into account, noting that any overcatch is deducted from the Member's catch limit for the next year, emphasising that the impact on biomass will be negligible, and assuring that reviewing the measure allows to take into account changes in the biomass or other modifications.
164. Australia noted its strong interest in maintaining a sustainable fishery, explaining how the system will work regarding overcatches and providing assurances that through the reporting system and other measures in place, the scenario of significantly overshooting the catch limit is highly unlikely.
165. Following discussions, New Zealand introduced an amended version of its joint proposal with Australia (COMM8-Prop08_rev3), drawing attention to: an amendment to specify actions that Members and CNCPs shall take when they reach 70% of their catch limit; specifications on how this will work in practice; an addition regarding Members and CNCPs notifying the Secretariat as soon as practicable, of the catch limit being reached; and editorial amendments.
166. Following discussions, New Zealand introduced an amendment to the text to clarify that no tows will begin after the catch limit is reached.
167. Following further discussions, New Zealand presented a revised proposal (COMM8-Prop08_Rev4), including all comments and suggestions.
168. The Commission adopted the proposal to amend the CMM 03a-2019 (Annex 7d).

x. CMM 04-2019 IUU Vessel List (Prop09)

169. The European Union, indicating that the proposal (COMM8-Prop09_rev1) had been discussed in the CTC meeting and was recommended for adoption, clarified that the initial intention was to adopt a system for cross-listing of IUU Vessels that unfortunately could not reach consensus. The European Union explained that the only substantial change in the CMM refers to broaden the information that require updating regarding IUU Vessels that currently are limited to the name of the vessel and the International Radio Call Sign.
170. The United States of America expressed disappointment that discussions on cross-listing had not produced tangible results, noting that paragraph 16 of the current measure regarding non-discriminatory actions, signifies that cross-listing is required.
171. Chairperson Urrutia emphasised that a more open, clarifying discussion on cross-listing at some point in the future would be beneficial for the Organisation.
172. Korea noted its support on the idea of cross-listing in general, expressing concerns about conveying decisions on de-listing of vessels across different organisations in a timely manner.
173. The Commission accepted the CTC recommendation to amend CMM 04-2019 (Annex 7e).



xi. CMM 05-2019 Record of Vessels (Prop10)

174. Peru noted that its proposal to exempt artisanal and small-scale fishing vessels that could be affected by being included in the Register of Vessels authorised to fish in the Convention Area, is still under consideration by Members.
175. Chile and the European Union noted difficulties in accepting the proposal in its current form. The European Union suggested that there may be other ways to achieve a similar result, recommending a change of focus in the proposal.
176. Peru said that they have difficulties incorporating some of the suggestions received by Members in the proposal, requesting more time for further deliberations.
177. Chairperson Urrutia emphasised that this is an important proposal with potential implications for future compliance and the SPRFMO's capacity to implement its current legal framework, encouraging all Members to engage with Peru and interested Members in the discussions.
178. Following discussions, Peru stressed that the artisanal vessels going beyond 200 nautical miles are all small vessels, smaller than 32 cubic metres hold capacity, with 60% of them being smaller than 15 metres in length and less than 10 cubic metres hold capacity. Stressing that 90 of these small artisanal jigger vessels have the equivalent fishing power of one industrial vessel, Peru further emphasised that a process of formalisation is ongoing at the national level, noting that some of the vessels lack registration number and/or fishing licenses. Peru proposed to Members the commencement of a training programme for artisanal fishers to inform them regarding their SPRFMO-related obligations when fishing in the Convention Area. Peru informed that the training programme can be developed during 2020 so in January 2021 a Register of artisanal vessels can be implemented and the information submitted to the Commission, noting that some of the requirements may not be physically applicable given the size of the artisanal vessels.
179. Peru withdrew the proposal.

xii. CMM 11-2015 Boarding & Inspection (Prop11)

180. The United States of America introduced and provided an update of its proposal to implement specific measures to govern high seas boarding and inspection of fishing vessels in the Convention Area, in accordance with Article 27 of the Convention. The proposal takes into account comments received on previous similar proposals submitted at COMM6 and COMM7.
181. The United States of America noted that there are several changes to last year's proposal as that draft contained bracketed and mutually exclusive text. The United States of America further acknowledged that the text is both complex and sensitive, expressing its flexibility and commitment for further work to reach consensus. The United States of America requested time for an informal working group to discuss the text in greater detail.
182. Following an informal working group session and discussions on the margins, the United States of America introduced a revised proposal (COMM8-Prop11_rev1), highlighting the significant progress made, with Members supporting the vast majority of the text. The United States of America noted several attempts to address China's concerns through edits and further explanation of the text. The United States of America highlighted the few remaining issues where there is not yet consensus, particularly paragraph 6 related to fishing entities and the use of force language.
183. Following further discussions, the United States of America noted that, despite all the constructive input and engagement, consensus could not be reached as one delegation still has concerns with the text. The United States of America respected that the participation constraints in this Commission meeting precluded further progress but expected delegations to then be prepared to support adoption at the next meeting. The United States of America expressed concerns that China introduced new positions that had not been raised in previous meetings and that would be inconsistent with the SPRFMO interim boarding and inspection measure, the UN Fish Stocks Agreement and other RFMOs measures.



184. Regarding future steps, the United States of America noted that the interim boarding and inspection measure is in place, encouraging all Members to think how to operationalise it over the course of this year, and requesting the Chairperson's support for further intersessional work.
185. The European Union, Chile, Australia and New Zealand supported the proposal, thanked the United States of America for its commitment and hard work, sharing its concerns that China could not accept the proposal and expressing hope that consensus can be reached next year.
186. The United States of America withdrew the proposal.

xiii. CMM 12-2018 Transshipment (Prop12)

187. The European Union introduced its revised proposal to clarify the applicability of the transshipment provisions to the main species managed by SPRFMO (COMM8-Prop12_rev5).
188. The European Union noted the changes to the deadline of transmission of observer transshipment logsheets as no later than 15 days from debarkation of the observer, or in the case of the jumbo flying squid no later than 30 days with a footnote for exceptional circumstances requiring notification to the Executive Secretary.
189. Following further discussions, the Commission adopted the proposal to amend the CMM (Annex 7h)

xiv. CMM 14b-2019 -Exploratory Potting Fisheries (WP02)

190. Cook Islands presented a revised version of its proposal (COMM8-WP02_rev3) following work on the margins of the CTC and Commission meetings.
191. The Commission adopted the proposal (Annex 7j).

b. New CMMs

i. CMM for Exploratory fishing for Patagonian Toothfish (Prop13)

192. Chile presented its proposal to provide for exploratory bottom longline fishing for toothfish in the Convention Area for the purpose of obtaining scientific data regarding bathymetry of the fishable area, characterisation of toothfish in the area, tagging of toothfish for stock linkage and life history studies, information for further genetic studies, information of bycatch and other associated or dependent species, and occurrence information on marine mammals, seabirds, turtles, sharks and other species of concern.
193. Chile noted that a revised version of its proposal (COMM8-Prop13_rev2) had been circulated, addressing Members' comments.
194. The Commission adopted the CMM on Exploratory Toothfish fishing by Chile (Annex 7k).

ii. CMM for Effort limitation on squid (Prop14)

195. Following the submission of the proposal during the CTC meeting and discussions with Members on the margins, the European Union introduced a revised version of the proposal (COMM8-Prop14_rev5).
196. New Zealand expressed support for the implementation of a management measure for squid, noting the recommendation of the performance review, and also the urgent need to ensure that robust information is available on potential interactions of this fishery with seabirds, particularly the endangered Antipodean albatross.
197. The United States of America noted general support, despite the view that the current proposal falls short of the recommendations made by the Performance Review. The United States of America proposed adding a clear metric for the 5 full time at sea observers by adding in parentheses the equivalent 1,825 days at sea.
198. China queried the number of days cited, and reserved its position.
199. Korea suggested that, in the spirit of compromise, the review date could be moved up for consideration by the SC in 2021 and the Commission in 2022.



200. The European Union urged all Members to be flexible to adopt some measure to manage squid, adding that it would be possible to continue to improve over time.
201. Chairperson Urrutia, echoed by Australia and Chile, underscored the importance of meaningful management in the squid fishery and called on Members to work together to find an adoptable measure.
202. Following discussions, the European Union proposed to clarify observer coverage, as follows: “Members and CNCPs participating in the jumbo flying squid fishery shall ensure a minimum coverage of 5 full time at sea observers or 5% of fishing days for vessels flying their flag and ensure that such observers collect and report data as described in CMM 02-2018 (Data Standards)”. The European Union also proposed that the SC review the minimum observer coverage, including in relation to the specificities of different fleet segments, at the latest at its 2023 meetings and provide advice to the Commission.
203. The United States of America noted that, notwithstanding its concern that the amendment is not going as far as appropriate, it supports its adoption.
204. Peru highlighted Article 19 of the Convention (recognition of the special requirements of developing States), requesting additional time to consider the issue.
205. Noting general agreement among Members and the participation constraints of some Members, Korea noted that they will not block consensus, but requested their concern on the two options for observer coverage not being appropriate in terms of fairness and effectiveness be recorded in the meeting’s report.
206. The Russian Federation supported the proposal, stressing the importance of adopting this CMM at this Commission’s meeting.
207. Peru emphasised that while they share the same objective as other delegations regarding the CMM, they also have an obligation to attend to the aspirations of their national fishers, both artisanal and industrial.
208. CALAMASUR underscored that the issue is of great concern within the fishing world, reminding Members of the submission of their relevant proposal and the suggestion to hold a workshop, and emphasising that the measure centralises all the necessary actions to be taken by Members and CNCPs for an ordered management of the jumbo flying squid fishery.
209. The European Union noted the importance of the request by the fishing sector asking the Commission to take action on this item, reminding Members that the European Union is not active in the fishery.
210. Following discussions, the European Union introduced a revised proposal (COMM8-Prop14_Rev6).
211. Members agreed that the SC shall review the minimum scientific observer coverage at the latest at its 2023 meeting and provide advice to the Commission, including in relation to the specificities of different fleet segments up to 15 metres in length.
212. The Commission adopted the CMM on the management of the jumbo flying squid fishery (Annex 7l). The Commission recognised the significance of this achievement.

c. CMMs for review in 2020

i. CMM 01-2019 Trachurus Murphyi

213. This CMM was discussed under “Concerning Implementation of Current CMMs” (pages 5 and 6 of this report).

ii. CMM 06-2018 Commission VMS (Prop15)

214. Executive Secretary Dr Rodríguez outlined the changes in the document (COMM8-Prop15_rev3), noting that the CTC had recommended adoption.
215. The Commission adopted the proposal (Annex 7f).



iii. CMM 10-2019 CMS (Prop16)

216. Executive Secretary Dr Rodríguez outlined editorial changes as well as changing the review date to 2023 (COMM8-Prop16).
217. The Commission adopted the proposal (Annex 7g).

iv. CMM 12-2018 Transshipment (Prop17)

218. These amendments were incorporated into the European Union proposal on transshipment (Prop12).

v. CMM 13-2019 Exploratory Fisheries (Prop18)

219. Executive Secretary Dr Rodríguez outlined editorial changes as well as changing the review date to 2021 (COMM8-Prop18_rev1).
220. The Commission adopted the proposal (Annex 7i).

vi. CMM 14b-2019 Exploratory Potting CK (Prop19)

221. The Secretariat indicated that this proposal is no longer necessary as it was overtaken by recent events, noting that the relevant Cook Islands proposal (COMM8-WP02) includes these suggestions.

7. SPRFMO Observer Programme Accreditation Evaluator

222. The Commission discussed the implementation of the SPRFMO Observer programme.
223. The Commission accepted the FAC and CTC Recommendations and selected MRAG as the SPRFMO Observer Programme Accreditation Evaluator (CTC7-Doc12).

8. Performance Review Recommendations

a. Implementation of Recommendations and SC responses

224. Executive Secretary Dr Rodríguez presented a summary paper concerning the Implementation of the Commission related Performance Review Recommendations (COMM8-Doc08) and the SC Responses to the Performance Review (COMM8-Doc08.1). Members discussed the recommendations in a working group.
225. Working group facilitator Kirstie Knowles (New Zealand) reported progress in 9 of the 18 recommendations, with proposed text presented in COMM8-WP11_rev1. She explained further deliberations are dependent on FAC advice and CMM decisions, and noted her proposal to add to each recommendation indication of whether the Commission considers the item open or closed.
226. Following discussions, facilitator Knowles provided an update, noting the changes in document COMM8-WP11_rev1 and indicating that some of the measures had not been addressed due to lack of time.
227. Chairperson Urrutia suggested that the Commission endorse the document, noting it will serve as the basis for further discussions on the outstanding items during the next Commission meeting.
228. The Commission endorsed the recommendations and updated its plan accordingly (Annex 9).

9. Cooperation Priorities

a. Current Arrangements and MoUs

229. The Secretariat provided a summary of the current SPRFMO arrangements and MoUs.
230. The Commission took note of the information provided.



b. New MoUs

231. Executive Secretary Dr Rodríguez presented document COMM8-Doc07 on progress of cooperation with other RFMOs. Reminding Members that, at the 7th Commission meeting in 2019, the Commission decided to “prioritise enhancing cooperation with the North Pacific Fisheries Commission (NPFC), the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC)”, he presented the final texts for Memorandums of Understanding with WCPFC and IATTC as well as the progress to date in developing an MoU with NPFC.
232. Regarding potential cooperation with IATTC, Executive Secretary Dr Rodríguez presented COMM8-Prop20_rev1, focusing on the main changes and explaining the process for signing the MoU.
233. The Commission approved the MoU with minor editorial suggestions (Annex 10a).
234. Regarding potential cooperation with the WCPFC, Executive Secretary Dr Rodríguez outlined the revised proposal (COMM8-Prop21_rev1).
235. Chinese Taipei queried whether a specific provision of the MoU creates a new requirement on transshipment activities, implying that the relevant regulations of both organisations need to be followed.
236. The United States of America offered its interpretation that SPRFMO resources are governed by SPRFMO transshipment provisions and the same stands for WCPFC, which the Secretariat confirmed.
237. Following clarifications on the transshipment provisions, the Commission approved the MoU with WCPFC (Annex 10b).
238. On potential cooperation with the NPFC, Executive Secretary Dr Rodríguez presented the revised proposal (COMM8-Prop22_rev1), explaining the process to be followed, and noting that the NPFC Chairperson is present to the SPRFMO Commission meeting as an Observer.
239. The Commission approved the MoUs with IATTC and WCPFC, and agreed to the process to be followed with NPFC with no further comments.

c. Guidance on Regional processes relevant for SPRFMO

240. Executive Secretary Dr Rodríguez presented a paper (COMM8-Doc06), requesting guidance on the extent that the Secretariat shall engage with various regional processes of relevance to SPRFMO. The Executive Secretary noted that the Commission has not provided clear advice or allocated the human and financial resources for the Secretariat to engage or not on regional processes related with the conservation and management of high seas fisheries resources from a policy point of view and therefore the Secretariat is looking for guidance from the Commission on how to approach these regional processes.
241. Faroe Islands and Australia noted that priority should be given to processes where the SPRFMO has a voice.
242. New Zealand noted that where SPRFMO is not represented in discussions where it could provide an important perspective, there may be value in making written submissions to these processes.
243. Chairperson Urrutia suggested and the Commission agreed that: participation should be decided on a case by case basis; processes where the SPRFMO has a voice will be prioritised; and relevant proposals will be included in next year’s budget.

10. Adoption of the Commission Report

244. The draft meeting report was prepared during the meeting by the professional rapporteuring services, reviewed by the Chairperson assisted by the Secretariat, and presented to the Commission on the last day of the meeting for its consideration. Members expressed their appreciation for the quality of the draft report that was prepared by the rapporteurs as well as for the excellent work of the interpreters and the technical support provided throughout the meeting.
245. The report was adopted on 19 February 2020 at 01:39 am.



11. Close of the Meeting

246. After adoption, Chairperson Urrutia thanked the Members, CNCs and observers for their engagement and good work.
247. Chairperson Urrutia referred to the absence of several SPRFMO Members and CNCs as per documents and communications circulated by the Secretariat (COMM8-WP12, R07-2020), and also acknowledged and expressed appreciation for the excellent job and good cooperation of the new delegates to this meeting.
248. Peru made a statement regarding the competence of the Commission in regulation of straddling fish stocks beyond jurisdictional waters (Annex 11b).
249. Peru made a statement objecting the decision adopted and reserving its rights to exercise a legal action, in the provisions of the Convention itself and other relevant regulations of international law (Annex 11c).
250. The Commission expressed their appreciation to the Secretariat, interpreters and professional rapporteur teams for their support throughout the meeting. The Commission also thanked the Government of Vanuatu for hosting the meeting.
251. Chairperson Urrutia presented the delegation of Vanuatu with a small token of appreciation to acknowledge their support and the success of the meeting in Port Vila, in Vanuatu.
252. The meeting was closed 19 February 2020 at 01:50 am.



8TH MEETING OF THE SPRFMO COMMISSION

Port Vila, Vanuatu, 14 to 18 February 2020

COMM 8 – Report ANNEX 11a Commission Chairperson Opening Statement

Mr Osvaldo Urrutia

The Honourable Charlot Salwai, Caretaker Prime Minister of the Republic of Vanuatu, distinguished Head of Delegations and delegates of Commission's Members, Cooperating NCPs and observers; ladies and gentlemen:

It is again my honour to speak before you to open the 8th Meeting of the Commission of the South Pacific Regional Fisheries Management Organisation at Port Vila, on this marvellous archipelago where the importance of the oceans and marine resources is self-evident. On behalf of the SPRFMO Commission and its CNCPs, I want to say that we are grateful to the Government of Vanuatu for agreeing to host this 8th Commission Meeting. We are also thankful to Vanuatu's private fisheries sector whose support was pivotal in organising and hosting our meeting in such wonderful premises.

Before addressing some of the substantive issues we have ahead of us, I cannot continue without referring to the consequences of the global health emergency that has affected our work. Due to precautionary measures adopted by the Government of Vanuatu, several of our colleagues from China and Chinese Taipei were prevented from attending this meeting. Although these two members are today officially represented amongst us, it is quite obvious that the complex negotiations and discussions we need to hold – many of them on issues of technical nature – have been and will continue to be seriously limited by the fact that our friends from Beijing and Taipei are not here. I would therefore urge members to show as much consideration and restraint as possible, considering that the absence of these Members' delegates was due to unexpected reasons that we all regret. It is our responsibility at this meeting to prevent future misunderstandings and ensure the legitimacy of the measures we adopt.

Please allow me to move to some of the substantive matters we need to address this week. I will not speak about all the proposals in place, many of which we have already discussed, at least partially. I would rather like to focus on two relevant topics that I believe are of the highest priority for this meeting, and where we should lead our efforts constructively and pragmatically.

The first one relates, obviously, to the Jack Mackerel fishery. It is no secret that due to the coastal catches of Peru in 2019 we have exceeded the limit set out last in 2019 as the TAC for the whole range of the stock. We all know the numbers and I need not go into them now. This is a delicate situation and a source of serious concern for most members. Yet we also know that this is not the first time that we must face such a challenge. It is then worth reminding this distinguished audience of the words of the first Chairperson of this Commission, Mr Bill Mansfield, when he addressed the 2014 meeting, referring to the situation of the JM stock during the early years when the SPRFMO Convention was negotiated. He pointed out that – and I quote –

“Cooperation is especially important with regard to stocks like jack mackerel that straddle coastal state economic zones and the high seas. Obviously a stock cannot be managed sustainably if, in the years in which it is concentrated in the high seas it is over fished by distant water fleets and in years in which it is concentrated in economic zones it is over fished by vessels authorised by the relevant coastal states”.

Mr Mansfield's words, based on the LOS Convention and UNFSA, and indeed in rules of international customary law, still resonate as the only possible path to achieve what we all want: a sustainable fishery that



can justify sustainable fishing by the members of our Commission. We are today fortunate that the JM stock is certainly in a healthier condition than seven or eight years ago. SPRFMO now reaps the benefits of the hard but necessary measures we adopted back then to prevent the collapse of the fishery, allowing us to move towards its recovery.

Although we are now in a different scenario, we must be guided by those same principles that underpin sustainable fisheries management. The text of the SPRFMO Convention contains such rules to help us solve situations like the one we have in front of us, including on compatibility. All members of the Commission, both coastal states and distant water nations, ought to engage in the fullest degree of cooperation required to achieve constructive solutions to avoid that such episodes happen again in the future. The good news is that, given the positive history of SPRFMO, the high technical capacity and personal commitment of our delegates, I am genuinely optimistic that the spirit of cooperation we have built as one of the hallmarks of SPRFMO will prevail, once again.

On a closely related note, I would also like to remind SPRFMO members that we will discuss, as in previous years, a proposal from Ecuador concerning the JM fishery. Members may wish to reconsider the fact that the current scheme of allocation does not allow Ecuador to fulfil its legitimate aspirations as coastal state. It is perhaps time for SPRFMO members to consider practical solutions to accommodate one of our historical members and a relevant fishing state in the Eastern Pacific.

The second important issue I would like to mention at this opening speech concerns the functioning of our organisation and particularly the work of the SPRFMO Secretariat. The leadership of Dr Sebastian Rodriguez as our Executive Secretary was consolidated during 2019. He has made a terrific job in reorganising the Secretariat, updating and improving its standards of work. As I have the privilege of serving the role of Commission Chairperson in Wellington, I have seen first-hand how the SPRFMO Secretariat has become a highly motivated group of people that show professionalism and commitment.

Yet Members need to know that all these improvements have come at a cost. SPRFMO has grown significantly in terms of burdens and responsibilities over the last intersessional years. We have now 20 CMMs to manage, covering one of the biggest high seas area managed by any RFMOs, including what is probably the largest fleet in the world. As the workload of our Secretariat has intensified substantially, SPRFMO has a tight budget that is limiting our performance capacity. This trend is becoming clear as more responsibilities and workload are coming in the foreseeable future. If our organisation is to grow and undertake more responsibilities, then we must ensure the support of the Commission, including appropriate funding. We have got to stop the current trend and seriously discuss what kind of organisation we want and the employer we want to be.

With this background I would then urge you all to engage at this meeting in the key work of the FAC, which will need to address several proposals and deal with the SPRFMO budget, staff issues, strategic priorities and administrative obligations for the forthcoming future. I invite all members to look at all these matters closely, constructively and as informed as possible.

Before closing, I would like to take the opportunity to express my appreciation to the US delegation for their voluntary contribution to the budget and activities of SPRFMO during 2019. I also want to thank each delegation and delegate to this Commission, and especially to the Secretariat staff and Mr Rodríguez himself, as well as the Chairs of the SPRFMO subsidiary bodies: Jim Ianelli from the US, Kerrie Robertson from Australia and Andy Wright from NZ, for your support and advice during 2019 as Chairperson of the Commission.

With these words, I am pleased to declare the 8th meeting of the SPRFMO Commission open.

Thank you very much.

Ref: R06-2020
Wellington, 5 February 2020

To: Heads of Delegation of SPRFMO Members and CNCs

Subject: Proposing Mrs Victoria Hallum as Chair of the informal Jack Mackerel Working Group (JM-WG)

Dear Members of the Commission,

As you are aware, the VIII Commission meeting will discuss several aspects concerning the jack mackerel fishery, including the fact that catches of this resource during 2019 exceeded the figure established in paragraph 10 of CMM 01-2019.

As in previous years, I intend to propose the establishment of an informal Jack Mackerel Working Group (JM-WG), under the umbrella of the Commission, to facilitate the discussion of this critical matter. Such an approach becomes more pressing as there are currently five different proposals addressing this issue. The JM-WG should work during the first days of the Commission meeting, to progress proposals that the Commission, once in plenary, may assess and potentially adopt. Experience of previous years confirms that the JM-WG has proved a successful instance to facilitate the deliberations of the Commission.

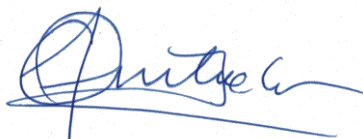
Assuming there is an agreement to establish the JM-WG, I would like to propose the name of Mrs Victoria Hallum to chair it. Mrs Hallum is a familiar name to you all, as she was the Head of the New Zealand Delegation and attended in that capacity the SPRFMO Commission meetings in The Hague and Lima. I am sure that her knowledge, vast experience, legal background and amicable character will help SPRFMO members to held constructive and fruitful discussions in Vanuatu.

Regarding further discussions on this issue and our work in Vanuatu more generally, I would like to remind you of the Heads of Delegation meeting that will take place on Thursday 13th February at 16:00 at the Hotel Conference – Partition Room 1.

Please do not hesitate to contact me at chairperson@sprfmo.int with copy to the Secretariat secretariat@sprfmo.int, in case you have any potential questions regarding this letter.

I look forward to seeing you all and working together once again.

With warm regards,



Osvaldo Urrutia
SPRFMO Commission Chairperson

8TH MEETING OF THE SPRFMO COMMISSION

Port Vila, Vanuatu, 14 to 18 February 2020

COMM 8 – WP 22

<input checked="" type="checkbox"/> Amend <input type="checkbox"/> Create	CMM 01- 2020 on <i>Trachurus murphyi</i> (Jack mackerel)
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Submitted by: Commission Chairperson

<p>Summary and objectives of the Working Paper:</p> <p>This is a Chairpersons Working Paper considering all the proposals from The European Union, Vanuatu, Ecuador, Chile and Peru as well as the outcomes of the Jack mackerel working group discussions.</p>
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<p>Objective of the proposal:</p> <p>This Working Paper is to facilitate the discussions of the Commission concerning the Jack mackerel CMM.</p>

Has the proposal financial impacts or influence on the Secretariat work?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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To be filled out by the Secretariat:

Ref: COMM8-WP 22	Received on: 18 February 2020
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CMM 01-~~2019~~2020

Conservation and Management Measure for *Trachurus murphyi*

(supersedes CMM 01-~~2018~~2019)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on ~~9 to 14 September of 2018~~ 7 to 12 October 2019 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2019) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2019 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

5. In ~~2019-2020~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~531,061~~611,033 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.

5bis In addition to the amounts specified under paragraph 5, and allocated as per Table 1 of this CMM, and without creating any precedent for future allocations, the Commission agrees to allocate an extraordinary 4,514 tonnes directly to Ecuador.

6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in ~~2019-2020~~ throughout the range of the stock should not exceed ~~591,000~~680,000 tonnes.

10bis The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the limit set out in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the limit set out in paragraph 10 has been completed.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data collection and reporting

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2018 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.

11bis When total catches have reached 70% of the limit indicated in paragraph 10, Members and CNCPs shall implement a 15-day reporting period.

a) For purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;

a/b) Once 15-day reporting has been activated Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report which shall be made within 20 days of the end of the period;

12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.

13. Except as described in paragraphs 11 and 11bis above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2018 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

15. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2018 (VMS) and other relevant CMMs adopted by the Commission.

16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2019 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.

17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2018 (Data Standards).

18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the ~~2019-2020~~ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the ~~2019-2020~~ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the ~~2019-2020~~ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.

²Fishing vessels as defined in Article 1 (1)(h) of the Convention.



19. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2019 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (~~2019~~2020) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
- a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2018 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in respect of fisheries in adjacent areas under national jurisdiction

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

- 23 bis. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Arts 4 paragraph 2 and 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Art 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed



the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraphs 5 and 5bis of this CMM.

23 ter. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Art 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 23 bis above, they agree to:

- a) Submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Arts 4 paragraph 2 (a), (b) and (c) of the Convention.
- b) Report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption.
- c) Cooperate in the coordination of the conservation of the measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation measures adopted by the Commission.

23 quater. At their next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.

23 quinquies. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraph 3 and 4 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special requirements of developing States

24. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

25. This Measure shall be reviewed by the Commission in ~~2020~~2021. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), ~~and~~ CMM 01-2018 (*Trachurus murphyi*) and CMM 01-2019 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.

26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.



Table 1: Tonnages in 2019-2020 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	381 572 439 034
China	37 515 431 64
Cook Islands	0
Cuba	1 319 1 517
Ecuador (HS)	1 413 1 626
European Union	36 102 41 538
Faroe Islands	6 552 7 539
Korea	7 578 8 719
Peru (HS)	11 988 13 793
Russian Federation	19 400 22 321
Vanuatu	27 622 31 782
Total	531 061 611 033

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador (HS)	0.2391
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive.

8TH MEETING OF THE SPRFMO COMMISSION

Port Vila, Vanuatu, 14 to 18 February 2020

COMM 8 – WP 25

Report of the Jack Mackerel Working Group

Victoria Hallum, JMWG Chairperson

Report of the Chair of the Jack Mackerel Working Group

The Jack Mackerel Working Group was mandated by the Commission to consider two issues:

- a) the catches of Peru in its national zone and the implications for SPRFMO;
- b) the proposal by Ecuador to give consent to having its EEZ included in the scope of the Commission's CMM and the allocation it is seeking.

The WG held six meetings from 14-17 February, one of which was open to members only, while the rest were held in open format.

Catches of Peru

Concern was expressed by a number of members that Peru's catches in its area of national jurisdiction had significantly exceeded that amount "set aside" by the Commission for such catches, and that as a consequence the total catch in the full range of the stock has not been kept to the amount established in para 10, as recommended by the Scientific Committee and as all members had agreed should be the case. Peru was asked how they could ensure compatibility of their measures with the Commission's measures.

Members expressed serious concern that Peru's catch, as well as the lack of communication regarding the measures applied by Peru, were not consistent with the compatibility requirement in Article 4 of the Convention and the cooperation arrangements agreed by all members in the Jack Mackerel CMM. It was noted that it was only a matter of luck that it did not seem, this year, that there had been a harmful impact on the fishery resource as a whole. Concern was expressed that about the impact that the incident could have on the credibility of the organisation and implications for the future, specifically for assuring future cooperation. Delegations wanted to be able to leave the Commission meeting with confidence that there would be good cooperation in the future, and that agreements regarding this will be respected. In response to a question the Chair of the Scientific Committee confirmed that due to the different models considered by the Committee he considered that the catch limit established for the range of the stock had merit regardless of the one-stock or two-stock hypotheses.

Peru provided its explanation of the situation, noting that there was a need to differentiate between Members that have opened their jurisdictional waters to the Convention. Peru explained the factors that had informed their available quota for catch in their zone and the conservation measures that they apply to the fishery. Peru acknowledged that there had been an absence of communication and offered that in accordance with the duty of cooperation they would make available all the updated information that justify the management measures it adopts within its national jurisdiction. Peru also noted that great variability in the growth of jack mackerel necessitates taking into account temporal considerations when making assessments. Peru indicated that it was open to having a discussion on how to improve the CMM.



The Chair clarified that no member suggested that the catch amount set in paragraph 10 was a legally binding in itself. Rather it was understood that the limit in Para 10 and the provisions of para 23 were a practical manifestation of the duty to cooperate and the mutual efforts to ensure compatibility.

The WG then focused on practical proposals to improve cooperation and coordination in order to ensure members were meeting their mutual obligation to cooperate to ensure compatibility. The WG considered a “non-paper” text of potential amendments to the CMM designed to ensure a better flow of information to the Commission regarding actions under national jurisdiction, developed by the Faroe Islands for this purpose. Following further informal discussions between delegations overnight, the US tabled a further text based on the Faroe Island proposal and feedback in the working group.

The US proposal would add several paragraphs to the CMM to provide for a specific process regarding cooperation in respect of fisheries in adjacent areas under national jurisdiction. The first would require coastal states which have not put their EEZs into the Convention area to undertake their utmost endeavours to restrain from authorising catches in their zones that exceed the amount of the “buffer” or unallocated quantity. Where due to exceptional or unforeseen circumstances they are not able to avoid this, they agree to submit a report to the Secretariat explaining how their measures are compatible with those of the Commission, as well as to report any subsequent changes. This report is to be considered by the Scientific Committee which will provide recommendations to the CTC and the Commission. Further the proposal provides that a member may request a special meeting of the Commission if that member considers that the coastal state has not taken into account the requirements of Article 4 (2) (a) through (c).

The proposal by the US received general support including from Peru, with only the EU reserving its position on the basis that it did not go far enough in ensuring compatibility. The EU indicated that it thought the cooperation measures should require the coastal state to complete the requirements in the US proposal *before* implementing its national measures. Some other delegations considered adding this temporal element might pose problems for some coastal states. Chile suggested a minor adjustment to the last para to make the text more consistent with the Convention. A number of delegations expressed support for this, with only Peru asking for more time to ensure they fully understood its implications.

Vanuatu also presented its proposal relating the option to “carry forward” quota with a number of members considering that in principle it offered a potential way of managing the variability and mobility of *Trachurus Murphyi*. A number of members saw value in seeking Scientific Committee input on the impact that the proposal would have on the stock with one member noting that in the long term this proposal could be one of the best solutions to the existing problem. Members urged the Commission to consider the proposal at the Commission meeting in 2021.

The Chair of the Working Group concluded that the US proposal had attracted a great deal of support and she considered that it could be presented to the Commission for adoption at the current Commission meeting. She proposed that the US states submit the proposal as a formal proposal with the suggested amendment offered by Chile. She expressed the hope that with a little more discussion amongst delegations the proposal might be adopted by consensus within the Commission, noting that this would not preclude commission members to work on further elements designed to ensure cooperation and compatibility being adopted at future Commission meetings.

Request of Ecuador

Ecuador presented its proposal for an increased allocation of quota, along with three alternative options for how its request for an increased allocation could be accommodated. Ecuador presented three alternatives in order to seek a maximum of 12,900 tonnes of TAC to develop the Jack mackerel fishery in Ecuador:



1. Alternative one: The Commission take a special decision to approve a new quota allocation of 11,274 tonnes defined by the 15% threshold suggested by the SC, noting that the new allocation will be imputed to the fraction of the healthy stock estimated and was not part of the recommendation adopted by the SC7.
2. Alternative two: The Commission take a special decision to approve the new quota allocation of 11,487 tonnes, charged from the maximum increase of 89,000 tonnes obtained by the 15% threshold adopted by the SC7, noting that the difference between the maximum increase in catch limits and new allocation requested (77,513 tonnes) will be distributed under the same percentages in resolution CMM01-2019.
3. Alternative three: The Commission take a special decision to approve a new quota allocation of 11,487 tonnes, which will be charge to the unallocated quota reserve of 69,966 tonnes.

Many delegations expressed support for Ecuador’s aspirations and indicated a willingness to look at how these might be accommodated in accordance with the framework of the Convention, particularly Article 21 and the existing CMM adopted by the Commission. Ecuador’s status as a developing coastal state with respect to the resource was acknowledged by many delegations. Ecuador’s willingness to include its in-zone catch in the convention area, was acknowledged.

In a subsequent meeting of the Working Group Ecuador presented a revised proposal which put forward a hybrid option which would draw the increased allocation 50% from the unallocated portion and 50% from the increase to the available catch recommended by the Scientific Committee. Ecuador also set out the conditions that would apply to the allocation and justified the proposed split as fair and equitable as it was based on historic catches and the legitimate intention to develop of fishery. The EU made a suggestion that the quota could be allocated under a separate heading of “quota for a new entry into the fishery”. Vanuatu presented a further proposal which focused on how to determine the amount of the unallocated portion that could appropriately be transferred to the Convention area in response to Ecuador’s request to have its EEZ considered within the measure. Vanuatu’s proposal was based on the previous 10 years since the interim measure was adopted and led to a transfer of 9.7 percent of the unallocated portion to the Convention area to be available for Ecuador. There was discussion of the different reference years that could be used and the impact of this. Peru suggested that 2013 or 2017 could equally be considered to be suitable reference years. A number of delegations expressed support for Vanuatu’s proposal. Reference was made to the fact that the Commission had noted in a previous report that economic viability of vessels is not a criterial in Article 21.

The Working Group concluded its discussion of this issue noting that the matter would now be passed by to the Commission to consider in Plenary.

The Chair thanks all delegations for their constructive engagement in the working group and for the goodwill shown to try to address the issues before it in a manner consistent with the Convention and its objectives.



8TH MEETING OF THE SPRFMO COMMISSION

Port Vila, Vanuatu, 14 to 18 February 2020

COMM 8 – Report ANNEX 11c Statement of Peru Opposing a Decision by the SPRFMO Commission

Peru has repeatedly expressed its sensitivity with respect to the aspiration of Ecuador to have a greater Jack mackerel quota in the area of application of the Convention. Nevertheless, given the evident inequitable and arbitrary nature of the decision by which an increased quota is being allocated to Ecuador, Peru expresses its strong objection to the decision adopted by this Commission, which has forced us to vote against it. This decision affects Peru particularly, as a Contracting Party of the Convention who has not given its express consent to submit its jurisdictional waters to the competence of the Commission.

In this respect, we want to state our absolute disagreement with the arbitrary and unequal way in which an increased quota has been assigned to Ecuador. In practice, it only affects Peru, it violates its rights, and it neither respects the quota criteria established in article 21 of the Convention, nor the agreement reached in 2017 in the context of CMM 01-2017, regarding this matter. Therefore, Peru reserves its rights to exercise any legal action, including raising an objection with respect to the decision adopted by majority, with our vote against it, in accordance with the provisions of the Convention itself and other relevant regulations of international law.

Peru considers that this represents a negative precedent for future fishing allocations by the Commission.

Finally, I ask Mr. Chairperson that this statement be included in the body of the report and as an annex in the Final Report of this meeting.

Port Vila (Republic of Vanuatu), on February 18, 2020.

8TH MEETING OF THE SPRFMO COMMISSION

Port Vila, Vanuatu, 14 to 18 February 2020

COMM 8 – Report ANNEX 7a
Conservation and Management Measure for Jack Mackerel
(COMM 8 – WP 22_rev1)

CMM 01-~~2019~~2020

Conservation and Management Measure for *Trachurus murphyi*
(supersedes CMM 01-~~2018~~2019)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 9 to 14 September of 2018 ~~7 to 12 October 2019~~ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:



General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCPs) included on the Commission Record of Vessels (CMM 05-2019) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under ~~its~~ their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2019 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCPs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.

Effort management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that Table.

Catch management

5. In ~~2019-2020~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~531,061,611,033-618,001~~ tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.

~~5bis In addition to the amounts specified under paragraph 5, and allocated as per Table 1 of this CMM, and without creating any precedent for future allocations, the Commission agrees to allocate an extraordinary 4,514 tonnes directly to Ecuador.~~

6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.

10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in ~~2019-2020~~ throughout the range of the stock should not exceed ~~591,000~~680,000 tonnes.

10bis The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

Data collection and reporting

11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2018 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.

11bis When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period.

a) For purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;

a)b) Once 15-day reporting has been activated Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report which shall be made within 20 days of the end of the period;

12. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.

13. Except as described in paragraphs 11 and 11bis above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2018 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

14. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set by set or trip by trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

15. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2018 (VMS) and other relevant CMMs adopted by the Commission.

16. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the

²Fishing vessels as defined in Article 1 (1)(h) of the Convention.



Convention and CMM 05-2019 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.

17. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2018 (Data Standards).
18. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2019-2020 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2019-2020 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2019-2020 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.
19. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2019 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
20. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2019-2020) agreed by the Commission, in order to provide updated advice on stock status and recovery.
21. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
22. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2018 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.



Cooperation in respect of fisheries in adjacent areas under national jurisdiction

23. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 11-22, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

23 bis. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Arts 4 paragraph 2 and 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Art 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraphs 5 and 5bis of this CMM.

23 ter. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Art 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 23 bis above, they agree to:

- a) Submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Arts 4 paragraph 2 (a), (b) and (c) of the Convention.
- b) Report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption.
- c) Cooperate in the coordination of the conservation of the measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation measures adopted by the Commission.

23 quater. At their next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.

23 quinquies. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special requirements of developing States

24. In recognition of the special requirements of developing States, in particular small island developing States



and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

25. This Measure shall be reviewed by the Commission in ~~2020~~2021. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), ~~and~~ CMM 01-2018 (*Trachurus murphyi*) ~~and CMM 01-2019 (*Trachurus murphyi*)~~ as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.

26. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.

Table 1: Tonnages in ~~2019-2020~~ fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	381 572 439 034
China	37 515 43 164
Cook Islands	0
Cuba	1 319 1 517
Ecuador (HS)	1 413 1 626 8 594
European Union	36 102 41 538
Faroe Islands	6 552 7 539
Korea	7 578 8 719
Peru (HS)	11 988 13 793
Russian Federation	19 400 22 321
Vanuatu	27 622 31 782
Total	531 061 611 033 618 001

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador (HS)	0.2391 1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive ~~as amended in 2020 [following the Findings and Recommendations of the Review Panel and due to the express consent of Ecuador to include areas under its national jurisdiction under the scope of the CMM.]~~

9TH ANNUAL MEETING OF THE COMMISSION MEETING REPORT

26 January to 5 February 2021

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9TH ANNUAL MEETING OF THE COMMISSION

26 January - 5 February 2021 (NZDT)

COMM9 – Meeting Report

1. Opening of the Meeting

1. **Commission Chairperson Mr. Osvaldo Urrutia (Chile) opened the 9th annual meeting of the SPRFMO Commission.** The Chairperson of the Commission offered a summary of the intersessional process by which the Commission agreed to hold its 9th Annual Meeting virtually and thanked all the Members for their support throughout the process.
2. Acting Executive Secretary Mr. Craig Loveridge noted that 2020 had been a challenging year and thanked everyone for their support. The Acting Executive Secretary introduced the new Compliance Manager, Mr. Randy Jenkins, and Ms. Marianne Vignaux who is backfilling the Data Manager role.

a. Adoption of the Agenda and Participation

3. **The Commission adopted the agenda ([COMM9-Doc01_rev1](#)), available as [Annex 1](#), and the annotated agenda ([COMM9-Doc02_rev1](#)) without amendments.** A list of participants is available in [Annex 2](#).

b. Meeting documents

4. **The Commission adopted the list of meeting documents ([COMM9-Doc03_rev1](#)) without amendments.**

c. Annual meeting programme and timetable

5. The Chairperson of the Commission presented the programme and timetable ([COMM9-Doc04](#)) and invited Members, Cooperating non-Contracting Parties (CNPCs) and observers to manage their expectations regarding the time available for discussions in view of the virtual format and the different time zones. The Chairperson of the Commission noted that the schedule would be adjusted as necessary throughout the meeting ([Annex 3](#)).

2. Membership

a. Status of the Convention

6. New Zealand, as the Depository of the SPRFMO Convention, provided an update of the status of the Convention ([COMM9-Doc05](#)), noting that there have been no new notifications of ratification, approval or accession.

3. Scientific Committee (SC)

a. Report of the SC8

7. The Chairperson of the SC, Dr. James Ianelli (United States), presented the report and scientific advice of the 8th SC meeting ([SC8](#)), held virtually 3-8 October 2020, and reviewed progress made against the 2020 Workplan.
8. Members expressed support for the SC8 recommendations and commended the SC, the Chairperson of the SC and the Vice-Chairperson of the SC, Dr. Niels Hintzen (European Union), for the outcomes of SC8. Members appreciated the substantial progress made by SC8, notably considering the virtual format of the meeting.



9. China asked whether the fact that there was only one Member fishing in the SPRFMO Convention Area for jack mackerel in 2020 would have an impact on the robustness of stock assessment. The Chairperson of the SC replied that the relative influence of years with few observations can be accounted for appropriately within the assessment.
10. The European Union noted the importance of advancing work to develop a Management Strategy Evaluation (MSE) for jack mackerel, in particular through the data and benchmarking workshops, and to accelerate efforts towards conducting a stock assessment for squid. The European Union also highlighted the importance of protecting vulnerable marine ecosystems (VMEs) from Significant Adverse Impacts (SAI).
11. Australia highlighted the importance of the Commission taking the SC's advice, including in relation to total allowable catch (TAC) limits, noting the Commission's strong track record in this regard. Australia noted that the SC had accepted the joint bottom fishing impact assessment (BFIA) prepared by Australia and New Zealand as the best available science. Australia noted that the SC recommended that the Commission may wish to consider additional precautionary management measures for areas and taxa at higher risk from bottom trawl fisheries to address uncertainty and provide additional confidence that CMM 03 will meet its objective. Australia referred to this issue in the context of the three proposals to review CMM 03-2020 submitted by Australia, New Zealand and the European Union, respectively.
12. **The Commission noted the Scientific Committee had accepted the joint bottom fishing impact assessment prepared by Australia and New Zealand as the best available science and considered the Joint BFIA for the purposes of Paragraph 20d of the bottom fishing CMM 03-2020. The Commission accepted the Scientific Committee's advice and agreed that bottom fishing could be authorised consistent with the assessment, noting that bottom fishing is also the subject of CMM proposed amendments under consideration by the Commission.**
13. **The Commission accepted and endorsed the SC8 report.**

b. 2021 SC Workplan

14. The Chairperson of the SC introduced the 2021 Scientific Committee Multi-Annual Workplan ([COMM9-Doc06](#)).
15. Chile indicated that they would be interested in coordinating work on otolith exchange and growth estimation for jack mackerel.
16. Some Members were supportive of the general objectives of the Workplan but considered it ambitious in view of the challenges posed by COVID-19 to hold in-person meetings. Chile noted the importance of an in-person meeting for the benchmark workshop for the jack mackerel stock assessment and that it may need to be deferred due to travel constraints.
17. China suggested deferring the work on Management Strategy Evaluation (MSE) for the squid fishery until the results of the jack mackerel MSE are available.
18. The European Union noted that MSE work is ongoing for many fisheries internationally, and that the European Union fully supports MSE for all fisheries. The European Union highlighted the importance of the benchmark workshop for the jack mackerel stock assessment and noted that while their preference was also for an in-person meeting, a virtual meeting may be the only option due to COVID-19. The European Union also noted that MSE work for squid is not set until 2023, so there will be time to see how the Jack mackerel MSE work progresses. The SC should ensure that work on a stock assessment for squid is kept on schedule, including the holding of a squid workshop in 2021. Regarding deepwater species, the European Union noted the importance of advancing work on the orange roughy assessment, on scenarios for the level of protection required to prevent Significant Adverse Impacts (SAI) on vulnerable marine ecosystems (VMEs), and on the appropriate move-on distance for VME encounters. Finally, the European Union welcomed the planned work to develop a template for Fisheries Operation Plans.



19. Australia noted that they were greatly supportive of the work of the SC and had made a voluntary contribution of NZ\$57,060 to fund any aspect of SC work, and had also contracted the National Institute of Water and Atmospheric Research (New Zealand) to undertake otolith reading for orange roughy stock on the Lord Howe Rise.
20. The SC Chairperson presented a revised version of the Scientific Workplan to reflect the decisions taken by the Commission during COMM9. New Zealand noted their support of the revised multi-year workplan. Consistent with the workplan, New Zealand has commissioned a significant amount of work, particularly on bottom fisheries over the history of the organisation, including over NZ\$200,000 in 2020. New Zealand commits to continuing its ongoing support to ensure that we continue delivering on the SC workplan to support effective operation of the Commission.
21. **The Commission adopted the SC workplan (COMM9-Doc06_rev3, [Annex 4a](#)).**
22. The Deep Sea Conservation Coalition (DSCC) expressed concerns regarding bottom fishing. They recalled that the UNGA resolutions call for the protection of VMEs and noted that the Workplan ignores rare species, connectivity between species and ecosystems and uncertainties in defining VME ecosystems. DSCC claimed it fails to manage for biodiversity and underlined that, since there is not enough data on the abundance and distribution of VMEs and taxa to be able to justify any percentage, it is a breach of the precautionary approach and the requirements of the SPRFMO Convention.

4. Finance and Administration Committee (FAC)

a. Report of the FAC 8

23. The Chairperson of the FAC, Ms Kerrie Robertson (Australia), presented the FAC report ([FAC8-Report](#)) and its recommendations. The Chairperson of the FAC explained that SPRFMO is in a reasonably healthy financial position, and that the Secretariat has managed within its budget. However, the Chairperson of the FAC recommended that the Commission take a cautious approach to ensure SPRFMO remained financially sustainable.
24. **The Commission accepted the FAC8 report and adopted all its recommendations.**
25. The Chairperson of the FAC drew attention to the need to clarify the meaning of “arrears” in accordance with the [Financial Regulations](#).
26. **The Commission agreed on the following interpretation with respect to annual contributions in arrears under the Financial Regulations, in line with Financial Regulation 4.9 *overdue annual contributions are considered to be in arrears the date after they are due and payable, i.e., after 90 days from the date the Executive Secretary informed Members of the annual contribution.***
27. **The Commission agreed on the following interpretation of when a Member with two years' worth of contributions in arrears is precluded from participation in decision-making. Based on Article 15.9 of the Convention, read with Financial Regulation 4.9, such a Member would not be “in arrears with its payment of any monies owed to the Organisation by more than two years” until more than two years from the date a particular payment became in arrears, that is, two years and one day from the date that payment was due and payable.**
28. **The Commission agreed that the Secretariat circulates relevant information concerning Members who are in arrears of more than two years to all Members, as it is relevant for any intersessional decisions.**
29. **The Commission noted that, unless paid in the meantime, on 16 May 2021, it will be more than two years and one day from the date Cuba’s 2019-2020 financial year contribution was due and payable.**



30. Cuba expressed their appreciation for the work of the Chairperson of the FAC. Cuba underlined that it is still trying to solve the obstacles to make the payment and does not want this to be an issue in the work of the Organisation. The Cuban delegation communicated that it would accept any decision that needs to be made in this regard and noted the economic difficulties it has experienced. Cuba expects that the obstacles preventing the payment being made will be resolved before May 2021.
31. **The Commission agreed that, in future the Secretariat should provide further detail on how annual contributions are calculated in the Schedule of contributions submitted to the FAC (including the underlying reasons for any significant changes).**
32. **It was agreed that future Commission reports should clearly explain how contributions were determined if they are modified beyond the budget formula stipulated in the Financial Regulation 4.7.**

b. Budget

33. The Chairperson of the FAC presented the revised budget noting that personnel costs had been revised to apply the 2021 UN salary rates and to reflect the outcome of the Commission's Executive Secretary recruitment decisions.
34. **The Commission adopted the Budget by consensus ([Annex 5a](#)).**
35. The FAC Chairperson emphasised the need to move towards applying the budget formula as prescribed by the Financial Regulations and to reduce reliance on the accumulated surplus account.
36. The FAC Chairperson presented a revised Schedule of Contributions. The revised schedule applied the budget formula and then adjusted contributions to ensure that no Member paid more than a 15% increase on last year's contribution and that no Member's contribution decreased by more than 5% on last year's contribution.
37. **The Commission adopted the Schedule of Contributions ([Annex 5b](#)) and that the shortfall would be made up using expected CNCP voluntary contributions.**

5. Compliance and Technical Committee (CTC)

a. Report of the CTC 8

38. The Chairperson of the CTC, Mr. Andy Wright (New Zealand), presented the [Report of the CTC8](#). The Chairperson of the CTC highlighted the CTC discussions on proposals to amend existing CMMs, the Draft IUU Vessel List, the accreditation of the observer programmes and the applications received to renew the CNCP status. Finally, the Chairperson of the CTC introduced the Provisional Compliance Report.
39. **The Commission accepted the CTC8 Report and adopted all its recommendations.**
40. **The Commission approved accreditation of the three Observer Programmes from Australia, Chile, and New Zealand. The Commission requested the CTC to continue to explore further improvements and potential simplifications for the observer accreditation process for consideration by the Commission at its annual meeting in 2022.**
41. **The Commission requested that the Secretariat provide more information in the VMS implementation report and develop a VMS workplan in consultation with the Chairperson of the CTC.**
42. **The Commission agreed to an intersessional working group on Port Inspections to be chaired by the European Union that will report to the CTC at its next meeting in 2022.**

b. Final Compliance Report

43. The CTC Chairperson presented the Provisional Compliance Report, COMM9-WP08_rev2.
44. **The Final Compliance Report (COMM9-WP15) was adopted by the Commission ([Annex 6a](#)).**



c. 2021 IUU Vessel List

45. The CTC Chairperson confirmed that the Provisional IUU Vessel List contains no vessels. The CTC Chairperson Wright noted that CTC did not recommend any changes to the current IUU Vessel list, with one vessel (BELLATOR) remaining listed.
46. **The Commission considered further information provided by Angola with respect to the BELLATOR and agreed to remove it from the Current SPRFMO IUU Vessel List. Therefore, the Commission adopted its 2021 Final IUU List ([Annex 6b](#)) containing no vessels.**
47. The Russian Federation asked whether the quarterly report from New Zealand on the progress of the New Zealand flagged vessel Amaltal Apollo prosecution would continue. New Zealand confirmed that they would continue to report progress quarterly.
48. The DSCC noted with concern that prosecution of the Amaltal Apollo is ongoing after the alleged offenses occurred in 2018, and suggested that vessels should remain on the IUU Vessel List until prosecution is complete.

d. Status of Cooperating non-Contracting Parties (CNCs)

49. The CTC Chairperson noted that applications for CNC status were received from Curaçao, Liberia, and Panama. The CTC Chairperson noted that all three CNCs had provided all the necessary information for the assessment, had made their voluntary contributions and explicitly agreed to high seas boarding and inspection provisions. The Chairperson of the CTC also noted that the CTC had recommended all three applications be accepted.
50. The European Union noted Panama's efforts to improve compliance with SPRFMO CMMs and encouraged it to continue these efforts in the future.
51. **The Commission agreed to renew the CNC status for Liberia, Curaçao and Panama.**

6. Conservation and Management Measures (CMMs)

52. **The Commission noted that due to time constraints given the virtual nature of the meeting, not all CMM-related proposals had been introduced during the CTC deliberations. All proposals were discussed during the Commission meeting.**

a. Amendments to current CMMs

CMM 01-2020 Trachurus murphyi

53. Peru introduced its proposal ([COMM9-Prop01](#)), including changes to paragraphs 25 and 26 and the removal of paragraphs 27 to 29 of CMM 01-2020.
54. Many Members highlighted concerns with the proposal and recalled that CMM 01-2020 was adopted at COMM8 after difficult discussions to improve implementation of the duties of compatibility and cooperation, as well as the principle of transparency in the management of the jack mackerel fishery. They also noted that CMM 01-2020 reflected a carefully crafted balance between the duty to ensure cooperation in the management of the stock thorough its range, and recognition of the sovereign rights of coastal States.
55. Some Members were further concerned that catches in 2020 had continued to exceed the agreed catch throughout the range based on the advice from the SC and requested Peru to undertake additional efforts to address this matter.



56. Peru reminded Members that it did not agree to the adoption of CMM 01-2020 at COMM8, referred to the two statements it provided at COMM8 to that effect, and stressed that it disagrees with the first part of paragraph 27 of CMM 01-2020 regarding the actions to be implemented by coastal States that have not given their express consent according to Article 20(4)(a) of the Convention. Peru is the only coastal State fishing *Trachurus murphyi* that has not given its express consent under Article 20(4)(a). Also, it explained that in waters under Peruvian jurisdiction, jack mackerel is used only for direct human consumption and an important share of that fishery is reserved to artisanal vessels. Furthermore, Peru indicated that it has been reporting regularly its jack mackerel catches, demonstrating its will to collaborate with the SPRFMO. Peru concluded by indicating that it was clear that their proposal did not have the support of the Members and that given the time and meeting format constrains Peru decided not to pursue it any further at COMM9. Peru noted that it may submit a proposal to amend CMM 01 in future meetings and made a statement highlighting their position ([Annex 8a](#)).
57. **The Commission did not adopt the proposal from Peru (COMM9-Prop01). The Commission noted that a formal statement was delivered and submitted by Peru during this meeting and it would be annexed to the meeting report ([Annex 8a](#)).**
58. The Secretariat presented working paper COMM9-WP06 amending CMM 01-2020 to update the total catch for jack mackerel based on advice from SC8.
59. Peru noted that it was unable to support WP06 for the reasons indicated in their statement and that they had presented national conservation measures that are compatible with the Convention, also referred to in their statement.
60. The Chairperson of the Commission stated that all efforts to reach a decision by consensus had been exhausted and called on Members to express their votes.
61. **The Commission adopted by vote (13 Members cast a positive vote, 1 Member cast a negative vote and 1 abstained) COMM9-WP06 amending CMM 01-2020 ([Annex 7a](#)) on the basis of scientific advice from SC8 concerning jack mackerel.**
62. The European Union expressed hope that in future meetings the Commission would be able to review the level of catch of CMM-01 recommended by the SC by consensus.

CMM 02-2020 Data Standards

63. The Secretariat introduced Working Paper COMM9-WP07 which amended CMM 02-2020 to include two new templates on - monthly catch and effort, and observer data in the squid fishery. The Secretariat noted that the templates were requested by COMM8 to improve management of the squid fishery and that the templates were reviewed by SC8 and the CTC7.
64. Following comments and questions from Members, a revised version of templates was produced (COMM9-WP07_rev1).
65. **Proposal COMM9-WP07_rev1 to amend CMM 02-2020 was adopted ([Annex 7b](#)).**

CMM 03-2020 Bottom Fishing

66. Australia, the European Union, and New Zealand each presented their proposals to amend COMM 03-2020 ([COMM9-Prop02](#), [COMM9-Prop03](#), [COMM9-Prop04](#)), highlighting the merits of each proposal and noting the advice received from the SC, the improvements made to the fishery and importance of the precautionary approach.



67. The proponents referred to the ongoing discussions amongst Members on how to move forward at COMM9 on the revision of CMM 03-2020 in view of the existence of three different proposals. The proponents noted the options being considered in the discussions, including on the work that should be requested from the SC regarding spatial management and level of VME protection, the appropriate distance for the move-on rule following a VME encounter, Annex 6 VME thresholds and observer coverage levels for bottom longline gear. Following discussions, Members agreed to specific tasking of the SC to ensure the information required to support the review of CMM03 in 2022.
- a. The SC to include in its workplan for 2021+ the development of spatial management scenarios for Bottom Trawling. This work will inform the Commission's determination of the level of protection required to prevent Significant Adverse Impacts on VMEs in the SPRFMO Convention Area. Scenarios should encompass protection levels of 70%, 80%, 90%, 95% for the modelled VME indicator taxa using temporally static and temporally dynamic assessment methods. The SC should also explicitly account for uncertainties in current model predictions, the relative availability of VME indicator taxa in an area, and recommendations from other RFMOs or guidance documents (if any) when formulating its recommendations to the Commission. Evaluations should be undertaken at spatial scales comparable to the Fisheries Management Areas described in [SC8-DW07_rev1](#).
 - b. The SC to include in its workplan for 2021 the development of advice on appropriate move-on distances for potential VME encounters, based on the size and spatial clustering of VME indicator taxa distributions. Where there is sufficient information, the SC should also explicitly account for possible differences in the distribution of VME indicator taxa occurring on features and slopes, as well as potential bioregional differences, based on all available information (including historical bycatch, VME taxa modelling, and survey data).
68. Australia offered to undertake a paired trial of human and electronic monitoring observation this year. Australia noted it will review 100% of the footage from the 10% of human observed days for seabird interactions, and provide information on this trial to the SC.
69. Following discussions, Australia introduced a further revision of its proposal, COMM9-Prop02_rev3, noting that it represented a negotiated effort between Australia, the European Union, and New Zealand to reflect the consensus reached.
70. DSCC provided a statement explaining their position ([Annex 8d](#)).
71. **Noting paragraph 20d of CMM 03-2020, COMM9-Prop02_rev3 to amend CMM 03-2020 was adopted ([Annex 7c](#)).**

CMM 03a-2020 Deepwater species

72. New Zealand introduced its proposal ([COMM9-Prop05](#)) to amend catch limits on deepwater species for the Tasman Sea based on recommendations from SC8.
73. Some Members noted that SC advice recommended individual catch limits for different sub-areas, and that combining them into a single TAC could introduce the risk of exceeding precautionary sub-area recommendations. The European Union also noted concern about the potential bottom fishing impacts of the proposed catch limits for orange roughy, depending on how CMM 03-2020 would be amended.
74. New Zealand presented a COMM9-Prop5_rev1 following discussions and initial feedback from the Secretariat on operationalising the three Tasman Sea stock catch limits recommended by Scientific Committee.
75. After some discussions, New Zealand and Australia presented a joint revision of Prop05 (COMM-Prop05_rev2) reflecting the consensus approach and recognising comments received from interested Members.
76. **COMM9-Prop05_rev2 to amend CMM 03a-2020 was adopted ([Annex 7d](#)).**



CMM 05-2019 Commission Record of Vessels

77. Peru introduced its proposal to amend CMM 05-2019 ([COMM9-Prop06](#)). Peru explained that their proposal removed the mandatory requirement for an IMO number and INMARSAT vessel communication numbers for artisanal fishing vessels smaller than 15 meters in length, emphasizing their concern that the requirements of CMM 05-2019 may be an impediment for small artisanal vessels to be included in the Record of Vessels.
78. Following a question from one Member, Peru confirmed that these vessels do have VMS and will be able to comply with CMM 06 (VMS).
79. The Committee for the Sustainable Management of the Giant Squid (CALAMASUR) noted that the effort of these vessels would not be additional effort, as they already fish for jumbo flying squid within the national jurisdiction, and that these vessels are very small and their gross tonnage is insignificant, even when there are many of them.
80. Following discussion and exchanges with interested Members, Peru submitted subsequent revisions of the proposal to address questions raised by some Members, notably to limit the exemption in scope and duration.
81. **Proposal COMM9-Prop06_rev4 to amend CMM 05-2019 was adopted ([Annex 7e](#)).**

CMM 06-2020 VMS

82. Chile introduced its proposal ([COMM9-Prop07](#)) to allow Coastal States to request VMS data when fishing vessels within the Convention Area are less than 12 nautical miles from the waters under its national jurisdiction or within them, and to provide an automatic alert to the relevant Coastal State when a vessel leaves the Convention Area and enters such national jurisdiction.
83. Some Members supported the goal of enhancing coastal States' MCS activities but stated their objection to the proposal as monitoring and control activities should not infringe on the rights of flag State and freedom of navigation. They consider that the proposal extends the coastal State jurisdiction to the high seas, which in their view is against the Convention and international customary law.
84. Other Members noted their support to the proposal and their strong interest in a sound VMS measure. They felt the proposal would support both coastal and flag States and would benefit all Members. Regarding comments about the proposal being contrary to international law, they noted that the proposal was consistent with international law and that States were allowed by international law to enter into specific agreements on VMS arrangements if they chose to. They also noted that the WCPFC 100 nautical mile buffer zone is an effective tool for compliance purposes and would like to see a strengthened VMS measure adopted in SPRFMO.
85. Following comments received, Chile introduced COMM9-Prop07_rev1, that contained a provision inspired by the WCPFC allowing to request VMS data 100 nautical miles within the Convention area, and the extension of the proposed automatic alerts to flag States.
86. Some Members noted that although the WCPFC has a 100 nautical mile buffer zone, the system is not the same as the WCPFC Convention Area covers EEZs, and does not include the concept of remote surveillance. They also stated that VMS data is sensitive and highly confidential and wondered how the information collected will be treated.
87. Chile indicated that the differences in management in the WCPFC buffer zone had been taken into account, and that VMS information will be protected by the existing data security provisions in the CMM. Chile expressed their view that that automatic alerts are not VMS information.
88. Following exchanges Chile presented COMM9-Prop07_rev2 removing the proposed provisions on VMS data requests and including changes in the system of automatic alerts.



89. China indicated that it had proposed amendments to the proposal that were not retained in the revised version, and therefore China was not in a position to accept the proposal. China noted that some elements of the proposal lack international legal basis, that once the vessel has left the Convention Area there is no relationship within the Convention and that they were concerned about data confidentiality.
90. Chile, supported by some Members, expressed its deep disappointment that it was not possible to reach consensus even on the compromise text proposed in [COMM9-Prop07_rev2](#). Chile recalled the importance of VMS, noted their wish to see further improvements in the future and highlighted the wrong precedent set by the lack of consensus. Chile expressed that SPRFMO is working with straddling stocks and that the United Nations has noted that straddling stocks are of special concern for coastal States. Chile also considered that there was a clear legal basis for this proposal.
91. **The Commission did not adopt the proposal from Chile ([COMM9-Prop07_rev2](#)).**

CMM 07-2019 Port Inspections

92. Chile introduced its proposal ([COMM9-Prop08](#)) which includes an increase in port inspections from 5 to 50%, and adds a new table in Annex 1 to record, where applicable, catch limits specified in licenses on-board the vessel.
93. Many Members supported the proposal and Peru noted that they were already inspecting 100% of foreign vessels in their ports.
94. Chinese Taipei noted that there were only a small number of inspections last year and suggested to establish different inspection rate based on different vessel types. Some Members highlighted that not many Members do port inspections and that it was unnecessary to increase the inspection rate so dramatically, as individual Members could inspect more vessels if they want to. They noted that this would impose an increased workload on vessels and the Secretariat.
95. Chile clarified that this measure applies to foreign vessels requesting access for landing or transshipment operations when they carry SPRFMO resources that had not previously been landed or transhipped. Additionally, Chile pointed out that port inspections are currently higher than 95%, as reported in [CTC8-Doc09](#).
96. Due to the diverging views expressed in the discussions, Chile noted its disappointment and indicated that it appeared to be impossible to get agreement on the percentage inspection rates and instead reviewed the proposal to limit the changes in the proposal to the template in Annex 1 regarding vessel catch limits. Some Members regretted that the change regarding the percentage of inspection rates could not be supported. Chile requested that the intersessional working group on Port Inspections also address this subject.
97. **The proposal from Chile ([COMM9-Prop08_rev1](#)) was adopted ([Annex 7f](#)).**

CMM 11-2015 Boarding and Inspection

98. The United States of America presented their proposal on High Seas Boarding and Inspection (HSBI) and after some discussions they introduced [COMM9-Prop09_rev1](#) noting that progress had been made in discussions with other members on the proposal, which seeks to clarify the boarding and inspection procedures in effect in SPRMFO.
99. Many Members thanked the United States of America for their proposal, noting that the proposal has been developed over several meetings and hoped that it could be adopted at COMM9. It was noted that the proposal was modelled on existing RFMOs frameworks, such as WCPFC and NPFC, and was consistent with the Convention.
100. The United States introduced [COMM9-Prop09_rev2](#) and [COMM9-Prop09_rev3](#) of its proposal to incorporate suggested edits received from China. Following discussions on the revised versions, many Members noted that the proposal was very close to adoption and indicated they could agree to the text proposed by the United States which represented a good compromise.



101. China requested a change regarding the provisions on the use of force to exclude the right of inspectors to carry arms when conducting boarding and inspection. China highlighted their concerns about the safety of fishermen and its intention to avoid abuse using of force during boarding and inspection activities, notably regarding an incident that took place in the WCPFC and involving inspectors carrying guns. China also recalled that one other RFMO, NAFO, does not allow inspectors to carry arms to board a fishing vessel. Some Members indicated they could not accept the changes proposed by China and that it was important to ensure that inspectors were able to protect themselves.
102. The Chairperson of the Commission noted that there was no consensus and invited the United States of America to come back with a proposal next year.
103. **The Commission did not adopt the proposal from the United States of America (COMM9-Prop09_rev3).**
104. The United States of America, supported by many Members, indicated their disappointment with this outcome, noting that it was an advanced proposal with widespread support, that a lot of efforts had gone into building consensus, and that it significantly refines the procedures for conducting HSBI operations in SPRFMO. The United States of America noted that the existing CMM 11-2015 imported Articles 21 and 22 of UNFSA, and in doing so imported the use of force provisions contained in Article 22. Australia noted that those provisions were currently available for any boarding undertaken pursuant to CMM 11-2015, and that the use of force provisions in that CMM are broader than the proposed compromise solution.
105. China reminded Members that their position is as the same as on the 1995 UN Fish Stock Agreement because they made statement regarding Articles 21 and 22 of that Agreement. China noted that it has made many compromises, and had shown a lot of flexibility, and reiterated they could not agree with the carrying of arms when boarding a fishing vessel.
106. Australia noted it was an active boarding nation and had enjoyed a high degree of cooperation across the Pacific under other HSBI regimes and hoped the same could be achieved in SPRFMO.

CMM 12-2020 Transshipment

107. Ecuador introduced their proposal to ban transshipments at sea of jumbo flying squid and limit any transshipment of those species to ports ([COMM9-Prop10](#)).
108. Following a question from Chinese Taipei on the evidence of vessels involved in IUU fishing for jumbo flying squid claimed by Ecuador, the Secretariat indicated that they had not received any SPRFMO reporting forms for IUU fishing activity from Ecuador.
109. Following exchanges and discussions, Ecuador submitted subsequent revisions of the proposal.
110. Some Members noted that they could not agree to the proposal, which they considered to be ambitious and premature as CMM 12-2020 was modified only last year to increase reporting on at-sea transshipments in the squid fishery, and that it was not scheduled for review until 2022 based on a recommendation from the CTC. They also suggested that there was no legal basis to ban transshipments at sea and the 1995 Fish Stock Agreement require to regulate rather than prohibit at-sea transshipment. They noted at sea transshipments are generally allowed in most RFMOs. They also stated that the general approach in other RFMOs was to introduce more proper monitoring tools rather than to totally prohibit at sea transshipments. They added that banning transshipment at sea would make the fishery uneconomic, restrict the rights of fishing vessels to make economic decisions on where to tranship, and increase the risk of COVID-19 transmission. They also indicated that banning a legal transshipment does not help to prevent IUU fishing. They recalled that the CMM is scheduled for review in 2022 and suggested that it be looked at then.
111. Other Members supported the proposal from Ecuador and noted that there were no procedural obstacles to progressing this proposal, as the Commission does not require CTC advice to consider a proposal, and the Commission can consider CMM changes at any time even if there is a review clause in the CMM. They also noted that prohibition of transshipment is a type of MCS regulation, so the proposal was not inconsistent with the UN Fish Stocks Agreement.



112. China introduced its new policy to strengthen at-sea transshipment from the beginning of this year, all the at-sea transshipment of Chinese fishing vessels must subject to prior-notification and an observer will be placed on board the carrier vessel to monitor and record such transshipment activities, but due to COVID-19, for the time being, observer is not yet implemented.
113. Ecuador expressed that they were not withdrawing the proposal, rather postponing and bringing it back next year. Ecuador made a statement ([Annex 8b](#)).
114. **The Commission did not adopt the proposal from Ecuador (COMM9-Prop10_rev3). The Commission noted that a formal statement was delivered and submitted by Ecuador during this meeting and it would be annexed to the meeting report ([Annex 8a](#)).**
115. The Commission discussed the simplified template for the provision of transshipment information in the jumbo flying squid fishery, as requested in paragraph 8 of CMM 12-2020, presented as working paper COMM9-WP18.
116. A discussion followed with suggestions for further amendments to COMM9-WP18 but there was no consensus on the final text. The Secretariat clarified that the current template of CMM 02-2020 would continue to apply for all transshipments.
117. **The Commission did not adopt the working paper developed by the Secretariat (COMM9-WP18).**
118. Ecuador noted their disappointment that the Commission was unable to agree even on the template. Ecuador indicated they were ready to continue working to progress the management of the squid fishery.

CMM 13-2020 Exploratory fisheries

119. Chile introduced its proposal to deal with issues that may arise when there is more than one exploratory fishery proposed for the same resource ([COMM9-Prop11](#)).
120. Many Members supported the objective of the proposal and engaged in discussions on the approach and the specific procedure to achieve that purpose, noting that the submission of joint exploratory fishery proposals by interested Members would be preferable in such situations.
121. Following discussions, Chile presented subsequent revised versions of the proposal to gather consensus.
122. **COMM09-Prop 11_rev3 from Chile to amend CMM 13-2020 was adopted ([Annex 7g](#)).**

CMM 14b-2020 Exploratory Potting Cook Islands

123. The Cook Islands introduced its proposal ([COMM9-Prop12](#)) relating to the ongoing exploratory potting fishery, noting that it is consistent with CMM 03-2020 and SC advice and is the result of an iterative process of improvements in both scientific research and monitoring efforts.
124. Some Members supported the proposal and noted that it reflected the advice of SC8.
125. The Cook Islands also introduced its revised Fisheries Operation Plan (COMM9-WP12) which included updates consistent with the CMM and that addressed queries the Cook Islands had received during bilateral discussions.
126. **The Commission adopted both the Cook Islands proposal to amend CMM 14b-2020 (COMM9-Prop12_rev1, [Annex 7h](#)) and the revised Fisheries Operation Plan (COMM9-WP12, [Annex 4b](#)).**

CMM 16-2019 Observer Programme

127. Peru introduced its proposal ([COMM9-Prop13](#)), noting issues about impediments that were similar in nature to those explained in COMM9-Prop06, for the artisanal fishing vessels smaller than 15 meters in length to meet the observer coverage requirement.



128. The European Union suggested changes to the proposal to address some concerns expressed by Members, including on scope and duration.
129. Following bilateral exchanges with some Members, Peru submitted subsequent revised versions of the proposal.
130. **Proposal COMM09-Prop13_rev5 from Peru to amend CMM 16-2019 was adopted ([Annex 7i](#)).**
131. Australia introduced Working Paper (COMM9-WP04_rev1) which was developed based on CTC's consideration of the process of the Observer Programme accreditation. Australia's proposal included amendments to CMM 16-2019 seeking to ensure that the Observer Programme accreditation process was fair and equitable, with appropriate timeframes outlined. The proposal also clarified the role for the CTC in the accreditation process.
132. **The Commission, considering the recommendations of the CTC, also adopted COMM09-WP04_rev2 to amend CMM 16-2019 tabled by Australia ([Annex 7j](#)).**
133. Following a query from China on the procedure of presenting working papers, rather than proposals to the Commission, the Chairperson clarified that Working Papers could be new text that reflects a recommendation from a subsidiary body that is tabled before the Commission.
134. China further queried whether a Working Paper that is adopted can become a legally binding CMM, in the same way that a Proposal would. China noted that if it is to be formally considered as a proposal, it should have been submitted 60 days in advance of the meeting.
135. The Chairperson of the Commission explained that the current practice in SPRFMO is that Working Papers are used to give effect to recommendations from a subsidiary body. They are called Working Papers to differentiate them from proposals, which are submitted before the meeting. The distinction perhaps needs to be formalised. The SPRFMO practice of the Working Papers is that they stay within the scope of the advice of a subsidiary body and do not go beyond it.
136. Some Members agreed with the explanations provided by the Chairperson of the Commission and, in line with a consolidated practice, supported the subsidiary bodies' recommendations being implemented through Working Papers.

CMM 18-2020 Squid - Ecuador

137. Ecuador introduced its proposal ([COMM9-Prop14](#)) to gradually increase observer coverage on vessels greater than 24 meters in the squid fishery to 100% by 2027.
138. Following discussions, Ecuador presented a COMM9-Prop14_rev2 of COMM9-Prop14 that reduced the proposed increase in observer coverage on vessels greater than 15 meters in length from the initially proposed 100% to 20% by 2023 and recognised the role of the SC in the review of observer coverage levels.
139. Some Members recognised the importance of observer coverage in the squid fishery but could not agree with the proposal since they considered it more appropriate to wait for the revision of CMM 18-2020 in 2024 before adding new obligations. They suggested that any increase in observer coverage should be discussed by the CTC and SC first and considered it is inappropriate to amend it this year, without evaluation of the current CMM. They highlighted that the SC was scheduled to provide advice on observer coverage levels in 2023. Chinese Taipei noted that exempting observers on vessels of less than 15 m is inconsistent with the rules in other RFMOs.
140. Other Members supported the proposal and noted that the current observer coverage is insufficient and would like to see improvements in the management of the squid fishery. They noted that a higher level of observer coverage may mean a more robust tool to collect scientific data and to monitor compliance. New Zealand noted its support for development and improvement to the management measure for squid, and highlighted the risk of interaction with seabirds, including the endangered Antipodean Albatross.



141. Ecuador stated that it would not withdraw their proposal but instead postpone it for next year to advance and they hope to reach consensus next year and hope that Members will make suggestions in the intersessional period.
142. **The Commission did not adopt the proposal from Ecuador (COMM9-Prop14_rev2). The Commission noted that a formal statement was delivered and submitted by Ecuador during this meeting and it would be annexed to the meeting report ([Annex 8b](#)).**
143. Some Members noted their disappointment that SPRFMO was not able to adequately address the observer coverage in the squid fishery, as 5% of fishing days or 5 full time at sea Observers is not sufficient to observe the activity in this fishery.

CMM 18-2020 Squid – European Union

144. The European Union introduced its proposal ([COMM9-Prop15](#)) to limit the effort in the squid fishery.
145. Following exchanges with Members, a revised version of the proposal was submitted. The European Union noted that changes were inspired by the NPFC, but adapted to the SPRFMO context and practice, and included a table with maximum active capacity in GT.
146. The Secretariat circulated (COMM9-WP14) with available data on the squid fishery for 2014-2019 as provided by Members and CNCs to the SC.
147. Many Members supported the proposal to ensure that squid is well-managed through a catch or effort limit and highlighted the importance to follow the precautionary approach until the stock assessment is completed. Many Members considered that developing States should not be penalised or deprived of their legitimate aspirations to develop fisheries in the Convention Area, which they noted the European Union proposal made efforts to address.
148. Other Members disagreed with the proposal, raising concerns regarding its scope, timeline and the rationale for the criteria retained to cap the effort. Some Members wondered whether the proposal was discriminatory against distant water fishing fleets, recalled that NPFC manages capacity based on the number of authorised vessels rather than the active fishing vessels and only the fleet with substantial harvest of the species was restricted from expansion, and noted that carrier vessels should not form part of effort management considerations.
149. China said that they had implemented a self-imposed spatial and temporal closure to protect the squid fishery in 2020, and noted that this is one of the precautionary measures they took.
150. CALAMASUR noted that the proposal follows the same approach as Paragraph 4 of CMM 01-2020 and supported the approach.
151. The European Union thanked the Members that had supported the proposal and those Members that had provided comments, noting that there was insufficient support for it to be adopted. The European Union expressed its intention to continue work on the proposal intersessionally with a view to bringing it back for further discussion at the next Commission meeting.
152. **The Commission did not adopt the proposal from the European Union (COMM9-Prop15_rev2).**



b. New CMMs

New CMM for an Exploratory Toothfish Fishery by the EU

153. The European Union introduced its proposal ([COMM9-Prop16](#)) for an exploratory toothfish fishery. Australia supported the proposal and noted their interest in any data collected, due to the proximity of the area to the Australian Macquarie Island toothfish fishery, which is managed to a high standard, and the potential population connectivity of the stocks and thanked the European Union for their constructive cooperation in that respect leading into SC. Australia also noted its preference that this exploratory fishery FOP conclude before any further amendment or expansion so the Commission can make an informed decision on the data.
154. The European Union prepared a revised version of the proposal that incorporated appropriate changes to reflect comments received from some Members.
155. **The Commission adopted COMM9-Prop16_rev2 for a new CMM on Exploratory Toothfish Fishing by the EU ([Annex 7k](#), CMM 14e-2021).**

New CMM for Vessel Markings and Identification

156. The United States of America introduced their proposal for vessel marking and identification ([COMM9-Prop17](#)).
157. Following bilateral consultations, several revisions were submitted to simplify the proposal and incorporate other changes requested by Members, including postponing the implementation date to 2023.
158. **The Commission adopted COMM09-Prop17_rev3 for a new CMM on vessel markings submitted by the USA ([Annex 7l](#), CMM 19-2021).**

c. CMMs for review in 2021

159. The Commission did not discuss any additional papers nor recommendations under this agenda item.

7. Office Holders

a. Election of Commission Chairperson and Vice-chairperson

160. The Commission thanked Mr. Osvaldo Urrutia, Chile, for completing his two terms as Chairperson of the Commission and congratulated him for the achievements of SPRFMO during his term in office. The Commission also thanked Ms. Kate Sanderson, Faroe Islands, for serving two years as Vice-Chairperson of the Commission and the support provided to the Chairperson and the Commission.
161. The Commission confirmed that CTC Chairperson Mr. Andrew Wright, New Zealand, will continue to serve in the second year of his second term. The position of Vice-Chairperson of the CTC remains unfilled.
162. The Commission thanked Ms. Kerrie Robertson, Australia, for her effective leadership and outstanding work during her terms as FAC Chairperson and acknowledged Mr. Gerry Geen, Vanuatu, for his support and assistance as Vice-Chairperson.
163. The Commission confirmed that SC Chairperson (Dr. Jim Ianelli, United States of America), and SC Vice-Chairperson (Dr. Niels Hintzen, European Union) will continue in their positions.
164. **The Commission confirmed the FAC's election of Mr. Jimmy Villavicencio, Ecuador, as the new FAC Chairperson and elected Ms. Karin Mundnich, Chile, as the new Vice-Chairperson.**
165. **The Commission elected Mr. Luis Molledo, the European Union, as the new Commission Chairperson and elected Mr. Michael Brakke, United States of America, as the new Vice-Chairperson.**



b. Appointment of the new Executive Secretary

166. Following the process outlined in paragraphs 16 and 17 of [Decision 5-2017](#), Contracting Parties selected Mr. Craig Loveridge as the new Executive Secretary and this was endorsed by the Commission. The Commission authorised the Chairperson to enter into a contract with the new Executive Secretary in accordance with the terms of the appointment agreed by the Contracting Parties Heads of Delegations.
167. The Commission offered its congratulations and best wishes and looked forward to working with Mr. Loveridge in the future and thanked him for his hard work so far. Mr. Loveridge thanked the Members for their kind words and stated he also looked forward to working with them into future and continuing to take the Secretariat forward.

8. Cooperation Priorities

COMM09-Obs01 CALAMASUR

168. CALAMASUR presented their paper [COMM09-Obs01](#) which contained information on several vessels that may have links to IUU fishing and requested the Commission to actively investigate the issues raised therein. CALAMASUR referred to their active engagement in improving the sustainability of the jumbo flying squid fishery.
169. China noted concerns with the paper, especially as most of the activities were not in the SPRFMO Area. China stated that no concrete evidence was provided to substantiate the IUU fishing claims and these allegations were not based on fact. China stated that all its vessels report VMS on an hourly basis and that the SPRFMO squid fishery is well managed. Furthermore, China is continuously monitoring its vessels, it is actively involved in the fight against IUU fishing and has a zero tolerance approach towards IUU fishing, but oppose any malicious and groundless accusations to its fishing vessels.

COMM09-Obs02 HSFG

170. The High Seas Fishing Group made a statement outlining their concerns with what they consider the hyper-precautionary agenda of opponents to fishing. They confirmed their view that SPRFMO has followed both the UNGA and FAO Guidelines to develop a spatial management approach and have established that there is low risk of Significant Adverse Impacts to VMEs in SPRFMO with the current bottom trawl fishery. The HSFG referred to the currently closed area of 99.81% and reiterated their view that this provides more than adequate protection under UNGA resolutions. The HSFG asked that their statement ([Annex 8c](#)) be appended to the report.

COMM09-Obs03 FAO

171. FAO presented their paper on the use of new information sources to improve fishery management.
172. China noted that they were not able to support this project because of the need to provide sensitive fishing and VMS data, which is contrary to confidentiality rules. They observed that SPRFMO should rely first on its own Scientific Committee for research. China was also concerned about the resources this will require from the Secretariat. China also stated that AIS data is collected for safety purposes not monitoring, so frequency and reliability make it inappropriate for fishery management purposes.
173. The European Union, while supporting the inclusion of this project on the SC workplan, noted that it would be advisable to further assess how the project will fit in the priorities and timeline of the Commission.
174. There was no consensus and the FAO was invited to take note of the interventions, questions and concerns raised and reconsider at a future stage.



COMM09-Obs04 FAO

175. FAO referred to the testing of the standardised process and methodology they are developing on IUU assessment and their work involving high seas tuna, coastal artisanal, and Asian multispecies fisheries. FAO thought of squid because of the very specific nature of the fishery and considered it could be a good case study.
176. The European Union noted their support to the objective of the paper and further cooperation with FAO, but considered that there should have been more technical discussions at the CTC. They indicated that a pilot project could provide an alternative way forward instead.
177. China indicated that it had expressed its concerns at the CTC session. They noted that the methodology and the use of the measurement indicators is very complicated. China was not in a position to support at this stage and they indicated more time was needed to consider.
178. Ecuador supported the FAO proposal.
179. **Regarding papers ([COMM09-Obs03](#) and [COMM09-Obs04](#)) there was no consensus to support the initiatives and the Commission invited the FAO to consider proposing the projects during a future meeting.**

COMM09-Obs05 DSCC

180. The DSCC thanked the Commission for including Observers in the work and noted that in their view SPRFMO was one of the most transparent of the RFMOs. However, the DSCC also noted the UNGA resolutions and that SPRFMO is the only RFMO which allows bottom trawling in an area with VMEs. DSCC expressed their view that bottom trawling on seamounts causes unacceptable damage and should not be permitted.

9. Date and Venue of the next meetings of the Commission and Subsidiary bodies

181. **Regarding venues for the next meetings of the Commission, the Commission welcomed and accepted:**
 - a. **The Russian Federation's offer to host the 2022 Annual Meeting (COMM10), in St Petersburg from 22 to 27 January 2022 for the Annual meeting, and preceded by a CTC meeting from 18 to 20 January 2022; and,**
 - b. **Ecuador's offer to host the 2023 Annual Meeting (COMM11).**
182. **Regarding venues for the next meetings of the Scientific Committee, the Commission welcomed and accepted:**
 - a. **Panama's offer to host the 2021 SC meeting (SC9), contingent on the COVID-19 situation from 27 September to 2 October 2021 and preceded by a Squid workshop from the 22 to 24 September 2021 also in Panama; and,**
 - b. **Korea's offer to host the 2022 SC meeting (SC10).**

10. Adoption of the Commission Report

183. Members discussed the process for the adoption of the report in view of the constraints of the virtual format.
184. The Commission agreed to exceptionally adopt a Record of Decisions at the meeting, and adopt the rest of the report intersessionally.
185. **Given the extraordinary circumstances of this meeting, the fact that the meeting was held by virtual means and due to lack of time, the Commission decided to adopt, prior to the close of its meeting, a Record of Decisions taken for the purposes of Article 17(1) of the Convention.**
186. **The Commission also decided to adopt its meeting report following the conclusion of the 9th Annual Meeting.**



187. The Commission agreed that the Secretariat should release the draft meeting report within ten days of the close of the 9th annual meeting of the Commission. The Commission agreed to undertake this process through correspondence through at least 2 rounds of comments. The first round shall be open for 3 weeks with the subsequent round opened for 2 weeks with a week between for the Secretariat to compile comments and formal statements made by Members, CNCPs and Observers during the meeting. On the basis of the feedback received the Chairperson shall in accordance with the Rules of Procedure either initiate an intersessional decision or initiate an extraordinary meeting for the express purpose of adopting the report.
188. The Record of Decisions taken for the purposes of Article 17(1) of the Convention shall not be edited in this process. In accordance with usual report practice, Participants are not to be permitted to edit another Participant's attributed statement without the consent of that Participant.
189. The Record of Decisions was adopted on 5 February 2021 at 2:00 am NZDT ([Annex 9](#)).

11. Close of the Meeting

190. After adoption of the Record of Decisions, the Chairperson of the Commission thanked the Members, CNCPs and Observers for their engagement and good work.
191. The Commission commended the outgoing Chairperson Mr. Osvaldo Urrutia for his excellent work and leadership during his 2 terms and his commitment to build consensus to advance the objective of the Convention. The Members acknowledged his sensitivity and impartiality which enabled him to forge strong relationships, and alongside his ability to focus a meeting, had led to the achievement of numerous and important SPRFMO outcomes during his tenure.
192. **The meeting was closed on 5 February 2021 at 2:01 am NZDT.**

9TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 25 January – 2 February 2021

COMM 9 – Prop 01

Peru

<input checked="" type="checkbox"/> Amend <input type="checkbox"/> Create	CMM 01-2020 on <i>Trachurus murphyi</i>
Submitted by: Republic of Peru	
<p>Summary of the proposal:</p> <p>It is proposed to delete paragraphs 27, 28 and 29 and clarify paragraphs 25 and 26, according to the following text: “25. Members and CNCPs participating in <i>Trachurus murphyi</i> fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in <i>Trachurus murphyi</i> fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in <i>Trachurus murphyi</i> fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the <i>Trachurus murphyi</i> fisheries in their areas under national jurisdiction. They are also invited to inform the Executive Secretary of the Conservation and Management Measures in effect for <i>Trachurus murphyi</i> in areas under their national jurisdiction.</p> <p>26. Acknowledging the duty to cooperate to promote that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the <i>Trachurus murphyi</i> fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their efforts to procure that the catches do not exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of CMM 01-2020 <i>Trachurus murphyi</i> 5 this CMM.”.</p>	
<p>Objective of the proposal:</p> <p>The Peruvian State exercises sovereign control over the exploitation, exploration, conservation and administration of its living natural resources in its jurisdictional waters, without prejudice to the commitments acquired before other States or international organizations, to the extent that they have agreed.</p> <p>In this regard, the SPRFMO Convention, to which Peru is a party, establishes in Article 20, among others, that States, with prior express consent, may submit their jurisdictional waters to a total allowable catch or total allowable fishing effort established by the Commission of said international organization.</p> <p>In this regard, Peru has not given such express consent, so total allowable catch or total allowable fishing effort established by the aforementioned Commission are not mandatory for it and, therefore, such obligations cannot be imposed like as it occurs in paragraphs 27, 28 and 29 of CMM 01-2020.</p> <p>In this sense, the sovereignty of the States in respect to their own jurisdictional waters would be unknown that is recognized in the same text of the Convention, as well as other international instruments on which it is inspired, such as the 1982 UNCLOS and the New York 1995 Agreement.</p> <p>Notwithstanding the foregoing, recognizing the duty to cooperate to promote and ensure the sustainability of living resources by providing information on a voluntary basis and with the commitment to maintain the compatibility of the conservation measures of the Convention with the measures adopted by each State, it has been able to maintain articles 25 and 26 with the clarifications indicated in this amendment proposal.</p> <p>It should be noted that Peru, in the framework of the annual meeting of the Commission (2020, Vanuatu), made a statement in the same sense of this proposal, and it was registered in paragraph 248 of the 8th Annual Meeting of the Commission Meeting Report.</p>	
<p>Has the proposal financial impacts or influence on the Secretariat work? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
Ref: COMM9-PROP01	Received on: 05 December 2020

CMM 01-2021~~0~~

Conservation and Management Measure for *Trachurus murphyi*
(supersedes CMM 01-2020~~19~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 7 to 12 October 2019 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2019) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2019 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

5. In 2020 the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to 618,001 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2020 throughout the range of the stock should not exceed 680,000 tonnes.
11. The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2020 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period:
 - a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
 - b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.
14. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.
15. Except as described in paragraphs 12 and 13 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2020 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
16. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
17. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.
18. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2019 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
19. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2020 (Data Standards).
20. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2020 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2020 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2020 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



together with the reasons for not doing so.

21. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
22. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2020) agreed by the Commission, in order to provide updated advice on stock status and recovery.
23. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
24. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2020 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also ~~requested~~ invited to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.
26. Acknowledging the duty to cooperate to promote ~~and ensure~~ that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20



paragraph 4 (a) (ii), will undertake their ~~utmost~~ efforts to ~~restrain from authorising catches that exceed~~ procure that the catches do not exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of this CMM.

~~27. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 26 above, they agree to:~~

- ~~a) submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;~~
- ~~b) report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;~~
- ~~c) cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.~~

~~28. At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.~~

~~29. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.~~

Special Requirements of Developing States

~~30-27.~~ In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

~~31-28.~~ This Measure shall be reviewed by the Commission in 2021. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*) and CMM 01-2019 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.

~~32-29.~~ Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits



from 2018 to 2021 inclusive.

Table 1: Tonnages in 2020 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	439 034
China	43 164
Cook Islands	0
Cuba	1 517
Ecuador	8 594
European Union	41 538
Faroe Islands	7 539
Korea	8 719
Peru (HS)	13 793
Russian Federation	22 321
Vanuatu	31 782
Total	618 001

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador	1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive as amended in 2020.



9TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 26 January to 05 February 2021 (NZDT)

COMM 9 – Report ANNEX 8a Statement of Peru regarding CMM 01-2021 *(COMM 9 – WP 13_rev1)*

Statement of Peru regarding CMM 01-2021 on *Trachurus murphyi*

Peru considers relevant to state the following:

The Convention we all are committed to, was created for the purpose of conservation and management of high seas fishery resources, including straddling fish stocks on the Area of the Convention.

Therefore, with regards to straddling fish stocks such as *Trachurus murphyi*, the competence of this Commission is the regulation and management of the fishery of straddling fish stocks in the high seas, and in the jurisdictional waters of the coastal States that have declared their express consent to submit them in accordance to Article 20(4)(a) of the Convention.

Peru has not expressed such consent, prerogative which assists the Peruvian State and that the Members of the Commission have not taken properly into account when adopting CMM 01- 2021 for *Trachurus murphyi*.

Peru as a coastal State exercises its sovereign rights with a responsible use and sustainable management of resources, in its jurisdictional waters, in consistency with the purposes of the Convention, ensuring to the extent possible the compatibility of the conservation and management measures.

The circumstance that Article 4(2) of the Convention states that conservation and management measures adopted for the high seas and those established for areas under national jurisdiction shall be compatible, does not imply that they should be equal. The Peruvian fisheries management measures rely on similar management approaches and purpose as those adopted by the regional competent authority, that aim at not disrupting the balance of the marine ecosystem as a whole.

As noted repeatedly, Peru significantly contributes to the scientific analysis and to the application of rigorous measures of conservation.

The Commission has the mandate to establish and allocate catch limits in the area of the Convention, and in so doing, it should respect the sovereign and scientific exercise undertaken by the coastal States in their jurisdictional waters.

And, in our view, it is not doing so when in the in the first part of paragraph 27 of CMM 01-2020 (...to be 2021) for *Trachurus murphyi* states, in an imperative manner, that coastal States that have not given their express consent according to Article 20(4)(a) have agreed to bind themselves to submit as a matter of urgency and within a peremptory period the reports specified in subparagraphs 27(a) and 27(b) of future CMM 01-2021, on management decisions and actions undertaken in areas under their jurisdiction and, clearly, outside the area of the Convention. This is not acceptable to the Peruvian State, particularly when Peru, the only coastal State fishing *Trachurus murphyi* that has not given its express consent, disagrees with this statement and has clearly opposed this part of the decision.

The Commission shall also take into account the respective dependence of the coastal States on the fishery resources concerned, the *Trachurus murphyi* in this case, and not only that of the States fishing on the high seas or in the area of the Convention. In our view, and as stated since the 1st meeting of the Commission in 2013, the Commission has been deciding to allocate a too large proportion of the indicative catch limit for the whole range of the stock in paragraph 10 of CMM 01-2021 to be distributed and caught in the area of the Convention. In a process that, although supported by the majority of members, we consider unfair and unequitable.

Lima, Peru, on January 27, 2021

9TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Held virtually, 21 January – 3 February 2021

COMM 9 – WP 06

PROPOSAL TO:

<input checked="" type="checkbox"/> Amend <input type="checkbox"/> Create	CMM 01-2020 on Jack mackerel
Submitted by: the Secretariat	
<p>Summary of the proposal: As requested by the Commission and as per Section 9 of CTC8 – Doc06 (<i>Trachurus murphyi</i> Implementation Report) this working paper seeks to show what the effect of the latest Scientific Advice is on the Jack mackerel measure, in particular Paragraphs: 5 – Year and tonnage update based on SC advice 10 – Year and tonnage update based on SC advice 20 – Year updates 22 – Year update 31 – Review date and addition of previous CMM Table 1 – year and individual tonnages update based on SC advice</p>	
<p>Objective of the proposal:</p> <p>This Working Paper shows the outcome of applying the latest advice of the Scientific Committee against the percentages listed in table 2 of CMM 01-2020.</p> <p>Paragraph 117 of the SC8-Report records that “the SC recommended a 15% increase in 2021 catches throughout the range of Jack mackerel at or below 782 kt”.</p> <p>Table 2 of CMM 01-2020 contains the percentages that will be used by the Commission as a basis for the allocation of Member and CNCPs’ catch limits from 2018 to 2021 inclusive.</p>	
Has the proposal financial impacts or influence on the Secretariat work?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



CMM 01-~~2020~~2021

Conservation and Management Measure for *Trachurus murphyi* (supersedes CMM 01-~~2019~~2020)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on ~~37~~ to ~~812~~ October ~~2019~~-2020 and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2019) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2019 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

5. In ~~2020-2021~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~618,001~~ 710,702 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in ~~2020-2021~~ throughout the range of the stock should not exceed ~~680,000~~ 782,000 tonnes.
11. The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2020 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period:
 - a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
 - b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.
14. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.
15. Except as described in paragraphs 12 and 13 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2020 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
16. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
17. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.
18. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2019 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
19. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2020 (Data Standards).
20. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the [2020-2021](#) Scientific Committee meeting. Members and CNCPs shall also provide observer data for the [2020-2021](#) fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the [2020-2021](#) Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



21. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
22. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan ([2020/2021](#)) agreed by the Commission, in order to provide updated advice on stock status and recovery.
23. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
24. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2020 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.
26. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of



this CMM.

27. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 26 above, they agree to:
- submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
 - report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
 - cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.
28. At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.
29. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

30. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

31. This Measure shall be reviewed by the Commission in ~~2021~~ 2022. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), ~~and CMM 01-2019 (*Trachurus murphyi*)~~ and CMM 01-2020 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
32. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.



Table 1: Tonnages in ~~2020-2021~~ fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	439 034 504 889
China	43 164 49 639
Cook Islands	0
Cuba	1 517 1 745
Ecuador	8 594 9 883
European Union	41 538 47 769
Faroe Islands	7 539 8 670
Korea	8 719 10 027
Peru (HS)	13 793 15 862
Russian Federation	22 321 25 669
Vanuatu	31 782 36 549
Total	618 001 710 702

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador	1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive as amended in 2020.



9TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 26 January to 05 February 2021 (NZDT)

COMM 9 – Report ANNEX 7a Conservation and Management Measure 01-2021 for Jack mackerel *(COMM 9 – WP 06)*



CMM 01-~~2020~~2021

Conservation and Management Measure for *Trachurus murphyi*

(supersedes CMM 01-~~2019~~2020)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on ~~37~~ to ~~812~~ October ~~2019-2020~~ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2019) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2019 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

5. In ~~2020-2021~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~618,001~~ 710,702 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in ~~2020-2021~~ throughout the range of the stock should not exceed ~~680,000~~ 782,000 tonnes.
11. The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2020 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period:
 - a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
 - b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.
14. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.
15. Except as described in paragraphs 12 and 13 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2020 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
16. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
17. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.
18. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2019 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
19. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2020 (Data Standards).
20. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2020-2021 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2020-2021 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2020-2021 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



21. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
22. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan ([2020/2021](#)) agreed by the Commission, in order to provide updated advice on stock status and recovery.
23. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
24. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2020 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.
26. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of



this CMM.

27. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 26 above, they agree to:
- submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
 - report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
 - cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.
28. At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.
29. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

30. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

31. This Measure shall be reviewed by the Commission in 2021-2022. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), ~~and CMM 01-2019 (*Trachurus murphyi*)~~ and CMM 01-2020 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
32. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021 inclusive.

**Table 1:** Tonnages in 2020-2021 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	439 034 <u>504 889</u>
China	43 164 <u>49 639</u>
Cook Islands	0
Cuba	1 517 <u>1 745</u>
Ecuador	8 594 <u>9 883</u>
European Union	41 538 <u>47 769</u>
Faroe Islands	7 539 <u>8 670</u>
Korea	8 719 <u>10 027</u>
Peru (HS)	13 793 <u>15 862</u>
Russian Federation	22 321 <u>25 669</u>
Vanuatu	31 782 <u>36 549</u>
Total	618 001 <u>710 702</u>

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador	1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive as amended in 2020.

10TH ANNUAL MEETING OF THE COMMISSION MEETING REPORT

24 to 28 January 2022

Document name: SPRFMO COMM10-Report

Meeting location: Virtual

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The Chairpersons of the subsidiary bodies – Mr. Andrew Wright, Mr. Jimmy Villavicencio, and Dr James Ianelli, are acknowledged for their inputs.



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10TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Held remotely, 24 to 28 January 2022 (NZDT)

COMM10 – Meeting Report

1. Opening of the Meeting

1. **The Chairperson of the Commission, Mr Luis Molledo (European Union), opened the 10th Annual Meeting of the SPRFMO Commission (COMM10).** He welcomed all participants, highlighted the time constraints imposed by the virtual format and invited Members, CNCPs and Observers to be brief in their interventions to be able to complete the meeting agenda. He appreciated the efforts made by those Delegations attending the meeting overnight.

a. Adoption of the Agenda and Participation

2. **The Commission adopted the Meeting Agenda (COMM10-Doc01, Annex 1) without amendments.** The meeting was attended by 279 participants (List of Participants in Annex 2).

b. Meeting Documents

3. **The Secretariat introduced the List of Meeting Documents (COMM10-Doc03), which was adopted by the Commission.** Following a request from the Commission, the document was subsequently updated (COMM10-Doc03_rev5) to include Working Papers and meeting reports from the Subsidiary Bodies.

c. Annual Meeting Programme and Timetable

4. The Chairperson of the Commission referred to the Programme and Timetable (COMM10-Doc04_rev4), noted that the schedule may be adjusted as necessary throughout the meeting (Annex 3) and thanked participants for their flexibility

2. Membership

a. Status of the Convention

5. New Zealand, as the Depository of the SPRFMO Convention, provided an update of the status of the Convention (COMM10-Doc05), noting that there have been no new notifications of ratification, approval or accession.

3. Scientific Committee (SC)

a. Report of the ninth meeting of the SC (SC9)

6. The Chairperson of the Scientific Committee, Dr James Ianelli (United States of America), presented the report and scientific advice of the 9th SC meeting (SC9), held virtually between 28 September and 3 October 2021 (NZDT), and reviewed progress made against the 2021 Workplan. He expressed his gratitude to the Vice-Chairperson of the SC, Dr Niels Hintzen (EU), and the Data Manager, Marianne Vignaux, for their valuable support. He highlighted that due to the COVID-19 pandemic an in-person meeting was not possible, so SC9 was held remotely, across 16 different time zones. This was also the case for the SC Working Groups.
7. The Commission noted the following highlights from the SC:



- a. The Chairperson of the SC noted that estimated biomass of Jack Mackerel in the southeast Pacific is in good shape and above the interim B_{MSY} . By the Commission's harvest control rule, the assessed biomass increases resulted in constraining the TAC by a 15% increase over the 2021 TAC. This resulted in recommended catches throughout the range of Jack mackerel to a level at or below 900 kt. This advice is considered precautionary. However, uncertainty remains, given significant changes in Jack mackerel growth estimates that have yet to be included within the assessment. The SC noted that the planned "benchmark assessment" was postponed and highlighted urgency for convening this in 2022. This should include issues related to changes in the estimates of Jack mackerel age and growth.
 - b. With regards to Deepwater issues, a significant body of work was considered, including several papers relating to protection of Vulnerable Marine Ecosystems (VME). The SC also reviewed the VME encounter event that occurred in 2020 and recommended management options contingent on the spatial scale at which Significant Adverse Impacts (SAI) on VMEs are managed. The SC also discussed the development of spatial management scenarios for bottom trawling and recommended that the Commission consider the results of these scenarios including to inform its determination of the level of protection required to prevent SAI on VMEs in the SPRFMO Convention Area. The SC agreed that work had progressed in a number of areas in relation to addressing the ongoing effectiveness of management measures as requested by CMM 03-2021.
 - c. The Chairperson of the SC noted developments for jumbo flying squid stock assessment and referred to the SC discussions on the wide range of possible assessment models. Concerning squid management, he noted an initial CMM should consider effort limitations. The SC's recommendation was agreed noting that constraining fishing effort could be useful, at least until more information becomes available on the stock status, stock structure, and overall productivity.
 - d. Regarding exploratory fishing, the SC considered one proposal from New Zealand to continue their exploratory fishery for toothfish.
 - e. The SC also considered an initial research plan proposed by Chile that focused on the Salas y Gómez and Nazca ridges and this was added to the SC Workplan.
 - f. The SC recommended that the financial cap on carrying funds over between years be reconsidered to add flexibility given pandemic impacts
8. The Deep Sea Conservation Coalition (DSCC) made a suggestion about expanding consideration of climate change in the Workplan.
 9. **The Commission accepted and endorsed the SC9 report.**
 10. Korea has committed to hosting the 2022 SC10 meeting and Panama offered to host in 2023 conditional on ability to hold in-person meetings.
 11. The Commission commended the Chairperson of the SC, the Vice-Chairperson of the SC and Members of the SC for their excellent work.
 12. Peru introduced COMM10-WP21 on Alternative Observer Programme for Peruvian Artisanal Vessels. Peru highlighted that the aim of the WP is to allow the Peruvian artisanal fishing vessels less than 15 meters to comply with the requirement in paragraph 4 of CMM 16-2021 to employ an alternative scientific monitoring approach in situations that preclude the deployment of an onboard observer in accordance with the SPRFMO Observer Programme. Peru's Alternative Observer Programme will collect data equivalent to that specified in CMM 16-2021 and in CMM 18-2020, in a manner that ensures comparable coverage. Peru clarified that COMM10-WP21 is based on document SC9-SQ03, which was supported by SC9, and that the observer programme has been running for some years in Peru and managed to successfully collect the relevant data.
 13. Many Members understood the exceptional situations of Peru's artisanal vessels and supported the alternative observer program. The USA considered that Peru has followed the process envisioned and that the proposal provides a viable alternative to providing observers from a SPRFMO accredited programme as envisaged by CMM 16-2021.



14. Many other Members acknowledged the special situation of artisanal vessels but queried the consistency of some parts of the Alternative Observer Programme with CMM 16-2021 as to the rights and obligations of on-board observers since paragraph 4 of the CMM is intended to apply to situations in which the deployment of on-board observers is not possible and CMM 16-2021 clearly outlines robust criteria for observer and crew safety standards and rights. They considered that SPRFMO cannot compromise on some of the standards related to observer rights and safety. They also noted that advice from the CTC was still essential. Many Members considered that it would be more appropriate for this proposal to be made in CMM format, either as a standalone or Annex to CMM 16-2021. Acknowledging that Peru followed the process under CMM 16-2021, Chile raised concerns about the procedure and suggested that the Commission may wish to consider changing the process in the future to allow for a full discussion before approval.
15. Following a request from Peru to put the proposal to a vote, the Commission Chairperson noted that it is the Chair's prerogative whether a matter is put to a vote. In his view, the requirement in Article 16 of the Convention to exhaust all efforts before resorting to a vote was not met and many Delegations considered that the discussions should continue next year.
16. The Commission did not approve the proposal from Peru.
17. The Commission invited Peru to submit the proposal for consideration at CTC10 and COMM11.

b. 2022 SC Workplan

18. The Chairperson of the SC introduced the 2022 Scientific Committee Multi-Annual Workplan (COMM10-Doc06_rev1). He noted that the Workplan is the Commission's main guidance document for the SC work in the coming years. The SC weighs in on the technical aspects to help the Commission develop this document.
19. Within the Workplan, a number of data and assessment issues are highlighted for Jack mackerel and for each of the main SC agenda items. This includes some cross-cutting issues and activities related to the observer program; seabird bycatch monitoring; updating species profiles and general research activities. The Commission Chairperson requested members coordinate with the Chairperson of the SC to finalise the workplan prior to adoption.
20. NZ noted that an update of the Workplan is necessary regarding the stocks of orange roughy scheduled for updated assessments in 2022.
21. The Workplan was further amended to include the activities related to point 5b of this report.
22. **The Commission adopted the SC Workplan (COMM10-Doc06_rev2, Annex 4a).**

4. Finance and Administration Committee (FAC)

a. Report of the FAC9

23. The Chairperson of the FAC, Mr Jimmy Villavicencio (Ecuador), presented the FAC report (FAC9-Report) and its recommendations. The Chairperson of the FAC explained that SPRFMO is in a reasonably healthy financial position, and that the Secretariat has managed within its budget. He highlighted that SPRFMO has balanced Member assessed contributions and CNCP voluntary contributions to support the budget.
24. Following a request from the Commission, the Secretariat presented an updated version of the Secretariat's 2021 Administrative Report (FAC9-Doc09_rev2) and circulated a letter (G08-2022) on the participation of the Secretariat at the Sustainable Ocean Initiative Globe Dialogue with Regional Seas Organisations and Regional Fishery Bodies (virtual workshop).
25. **The Commission accepted the FAC9 report and adopted all of its recommendations.**

b. Budget

26. The Chairperson of the FAC presented the 2022-23 Budget.



27. **The Commission adopted the Budget by consensus (Annex 5a).** The Chairperson of the FAC and some Members highlighted that for the first time in the history of SPRFMO, the organisation was to apply the budget formula as specified in the Financial Regulations. The Commission noted that this is a significant step for a solid budget footing moving forward and in minimising year-on-year fluctuations.
28. Following a request from the Commission, the Secretariat presented an updated version of the final Schedule of Member Contributions (COMM10-WP17_rev2). **The Commission adopted the Schedule of Member Contributions (Annex 5b).**

5. Compliance and Technical Committee (CTC)

a. Report of the CTC9

29. The Chairperson of the CTC, Mr Andy Wright (New Zealand), presented the report of the CTC9. He highlighted the CTC discussions and corresponding recommendations on proposals to amend existing CMMs, Draft IUU Vessel List, accreditation of observer programmes, renewal of CNCPs, and the implementation reports presented by the Secretariat.
30. **The Commission accepted the CTC9 Report and adopted all of its recommendations.** Of particular note, CTC recommended that CTC10 be extended by one day in order to give adequate time to address a number of outstanding VMS compliance issues.
31. China noted that the word ‘national’ should be deleted from paragraph 37 of the CTC Report dealing with the SPRFMO Observer Programme for consistency. Some Members highlighted that the terminology used in the CTC Report is consistent with the wording of CMM 16-2019.
32. **The Commission approved accreditation of two Observer Programmes: the Republic of Korea and Chinese Taipei.** It was also agreed that the accreditation of Ecuador’s national observer program would continue into 2022.
33. CTC elected Ms. Katherine Bernal (Chile) as the new Chairperson of the CTC. The Commission warmly welcomed Ms Bernal as the new Chairperson of the CTC.

b. Final Compliance Report

34. The Chairperson of the CTC presented the Provisional Compliance Report, COMM9-WP14, noting that there was one outstanding issue concerning the possible non-compliance with SPRFMO CMMs by a Russian-flagged vessel, for which the CTC was unable to reach agreement.
35. The USA noted that despite the complexity of the matter, including the identification of the applicable provisions and the fact that figures for the 2021 catches were not available yet, there was a compliance issue, and the Commission should register Russia as ‘non-compliant’. The USA also raised a concern that the vessel could potentially have been engaged in IUU fishing. The USA underlined that the central question was a good understanding of whether the alfonso caught by the Russian vessel could be construed as bycatch in the jack mackerel or redbait fishery. The USA also considered that there may be more issues beyond just the bycatch questions. The USA highlighted CMM 03-2021, which does not allow for bottom fishing outside of the identified management areas, except in accordance with the Exploratory Fisheries CMM. The USA concluded that if Russia has been allowing a deepwater fishery, it is possible that Russia has been contravening CMM 03-2021 for years, which could be a different compliance issue.
36. Russia confirmed that, during the fishing season, it had directed fishing for jack mackerel and redbait which have been subject to fishing in the previous ten years. Russia also highlighted that during the CTC meeting the Secretariat informed the CTC that alfonso has been subject to fishing in the previous ten years using midwater trawl gear in the Convention Area in framework of CMM 03-2021. At the same time, in Annex 9 of CMM 02-2021 (Data Standards), there are codes that separately identify bottom trawls and midwater trawls based on the International Standard Statistical Classification of Fishing Gear (ISSCFG). However, the definition of pelagic trawl or pelagic gear is not used in SPRFMO conservation and management measures. Russia



indicated that in accordance with the FAO standards, pelagic trawling is also referred to as midwater trawling. Russia considered that the Commission needs to further consider the grounds for classifying the alfonsino fishery as an exploratory fishery in accordance with the criteria established by CMM 13-2021. In this regard, Russia proposed a 'compliant' status for itself and suggested the Scientific Committee evaluate bycatch levels for the redbait fishery.

37. The Chairperson of the SC made a general comment that the SC would need to assess whether the alfonsino catch was bycatch and that it is always possible to catch some other species alongside the target species depending on the fishing technique and areas. The Chairperson of the SC considered that the SC should be able to evaluate the historical data and provide recommendations on natural bycatch rates and that there are many examples of fisheries that are managed using margins of retained allowance.
38. The Cook Islands underlined that this was a complex compliance issue and the Commission needed to receive further analyses before it could come to an informed conclusion on the compliance status. The Cook Islands noted Russia's comments that it had provided requisite data, and its willingness to make this available to the SC. The Cook Islands noted that the reason the Commission could not come to an informed conclusion was not due to a lack of cooperation from the flag State. The Cook Islands was not able to support a status of 'compliant', nor could it support a status of 'not-assessed' given there was no proven ambiguity in the measure. The Cook Islands instead suggested that the final status is deferred until advice from the SC is made available.
39. Chile underlined that the defining question was the issue of bycatch and that from the available information, the catches of alfonsino were too high to be considered bycatch of redbait, as the Russian Federation claimed. Chile considered that the vessel targeted alfonsino and should have undertaken this activity in accordance with the Exploratory Fisheries CMM. Chile considered that Russia status was 'non-compliant'. Chile also noted that there were constructive bilateral discussions with Russia on this matter during the meeting. However, it also asserted this was not a bilateral matter, but an issue that concerns the Commission.
40. DSCC noted that this area is an EBSA (ecologically or biologically significant area), and that there is scientific evidence that there are high levels of endemism, including fish.
41. Following the discussions of a Working Group that met to discuss this matter, the Commission requested that the Scientific Committee be tasked with the evaluation of patterns in species catch composition, including at the 'tow-by-tow' level and any other historical catches of alfonsino in the Convention area.
42. The Commission requested that relevant Members authorise the Secretariat to release data at the finest resolution possible across fisheries targeting Jack mackerel, redbait and/or alfonsino in FAO Statistical Area 87 to the SC for analysis, including logbook data, observer records, Secretariat-held VMS data and all relevant port inspection information.
43. The Commission decided that the SC Work Plan for 2022 should include this tasking as an additional line item.
44. The Commission gave detailed consideration to the possible non-compliance issue concerning the Russian Federation-flagged vessel. The Commission determined that further analyses would be required before it could form any conclusions on this possible compliance issue.
45. The Commission determined that the compliance status for Russia will be deferred until the 2023 CTC meeting (CTC10). The compliance matter in question will be included in the CTC10 Draft Compliance Report for further consideration by CTC10. CTC10 will review the results of the SC task and any other relevant information and will recommend an appropriate compliance status in the Provisional Compliance Report.
46. The Commission considered the Provisional Compliance Report. The Commission:
 - a. Amended Peru's compliance status regarding paragraph 11 of CMM07-2021, based on updated information from Peru.
 - b. Amended the Russian Federation's compliance status to defer it to COMM11.
47. **The Final Compliance Report (COMM10-WP20_rev1) was adopted by the Commission (Annex 6a).**



c. 2022 IUU Vessel List

48. The Chairperson of the CTC confirmed that the Provisional IUU Vessel List contained no vessels. The Chairperson of the CTC noted that there are currently no vessels on the IUU Vessel List, as such, the CTC did not recommend any changes to the current IUU Vessel list.
49. **The Commission adopted the 2022 Final IUU Vessel List (Annex 6b) containing no vessels.**
50. DSCC supported by ECO NZ regretted that SPRFMO was not more actively using the IUU Vessel List as an effective mechanism to promote compliance amongst SPRFMO Members and called for more transparency in the compliance process discussions. Some Members recalled that the final objective of the IUU Vessel List is not to place vessels on it, but to promote compliance and ensure responsible flag State action is taken in respect of IUU activities. They also highlighted that SPRFMO has a good record of dealing effectively with compliance and IUU matters

d. Status of Cooperating non-Contracting Parties (CNCPs)

51. The Commission considered the CTC's advice concerning CNCP applications. **The Commission decided to renew CNCP status for Curaçao, Liberia and Panama.**
52. **The Commission decided to grant Belize CNCP status.**
53. China noted that Belize was in arrears when it left the Organization. China considered that the fact that the arrears were waived in this case, should not constitute a precedent for any future application of membership/CNCP status.

6. Conservation and Management Measures (CMMs)

a. Amendments to current CMMs

a1. CMM 12-2020 Transshipment (ECU)

54. Ecuador presented a proposal (COMM10-Prop01) to amend CMM 12-2020 to require fishing vessels operating in SPRFMO to carry out the transshipment of jumbo giant squid only in port, with the objective of reducing the possibilities of actions related to illegal, unreported and unregulated fishing activity.
55. During the discussions that followed in the CTC, Ecuador introduced subsequent revisions of its proposal to accommodate comments from Members. Members acknowledged Ecuador's effort to move this proposal forward.
56. Some Members expressed concerns over the attempt of mandatory in-port transshipment and noted that they could not support the proposal. They requested clarifications, including on the rationale behind the figures regarding the obligation to transshipment in port and the purpose for the advice on the implementation of this CMM requested from the SC; and expressed concern about their ability to comply with the more restrictive deadlines for reporting and the additional workload for Members and CNCPs and the Secretariat these deadlines would entail. Some Members considered some of the deadlines envisaged in the proposal challenging to meet, not to mention under the circumstance of COVID-19 pandemic.
57. Many other Members noted their support for the proposal to ensure that transshipment in the SPRFMO area is regulated in a consistent manner across all fisheries and that it is properly monitored and controlled. The USA highlighted that the measure should be crafted for circumstances outside the pandemic and that the timing could be adjusted as opposed to lowering the standards.
58. CALAMASUR supported the need to strengthen control measures for the squid fishery and encouraged SPRFMO Members to adopt more robust measures for the regulation of transshipment.
59. The Commission did not adopt the proposal from Ecuador (COMM10-Prop01_rev2).



a2. CMM 14b-2020 Exploratory Potting (COK)

60. The Cook Islands introduced a proposal (COMM10-Prop02) to make minor amendments to CMM 14b-2021 and the associated Fisheries Operation Plan (COMM10-Prop02.1). The Cook Islands noted that for logistical reasons, no fishing has been undertaken pursuant to the current CMM. The amendments broadly fall into two categories: technical editing and amendments to management arrangements, which centre on the data-poor nature of the crab fishery. The Fisheries Operation Plan was revised to correct the specifications of the new trap design (COMM10-Prop02.1_rev1).
61. Following a question from DSCC, the Cook Islands clarified that the high seas area included in the proposal encompass to some extent the Nazca and Salas y Gomez Ridges.
62. **The Commission adopted the proposal to amend CMM 14b-2021 Exploratory Potting (Annex 7f) and its associated Fisheries Operation Plan (Annex 4b)**

a3. CMM 18-2020 Jumbo Flying Squid Fishery (ECU)

63. Ecuador introduced a proposal (COMM10-Prop03) to amend CMM 18-2020 to gradually increase observer coverage to 100% for the squid fishery by 2028. A discussion ensued where, following comments from Members, Ecuador introduced subsequent revisions of its proposal. Members acknowledged Ecuador's efforts to move forward by trying to modify the proposed observer coverage in reply to their concerns.
64. Many Members raised questions about the rationale for the proposed levels of observer coverage in the fishery. They noted that observer coverage was not the only available method to monitor the squid fishery and that the current observer coverage levels are sufficient to satisfy the requirements for monitoring and data collection. They questioned the scientific basis for the proposed level of coverage and the choice of timing and highlighted the importance of having scientific input regarding the requirement for data collection when determining a proper coverage level. Some other Members questioned whether the proposed exemptions for observer coverage were consistent with CMM 16-2021 by exempting vessels less than 24 metres in length.
65. The USA underlined that the squid fishery was rapidly expanding and SPRFMO is only beginning to have a basic understanding of the fishery. They asserted that the coverage level in the fishery is abnormally low and inadequate for catch, bycatch, and monitoring compliance. The USA noted that the SC has a role in guiding the level of observer coverage, but the CTC also plays a role. The USA supported the proposed stepwise increase in observer coverage for this fishery but considered that 20% was perhaps reasonable to achieve in an acceptable timeframe.
66. NZ supported the proposal and identified the urgency of increased data collection, notably to understand potential interactions with seabirds, and in particular, the endangered Antipodean albatross.
67. Many Members expressed support to Ecuador's efforts and agreed that increased observer coverage will bring benefits including on data collection and monitoring. They also acknowledged that there is an element of discretion regarding the rate and timing of increase and supported seeking advice from the SC on the appropriate level of observer coverage.
68. Many Members underlined that it is essential that appropriate levels of data collection and monitoring are in place for SPRFMO fisheries and Australia noted that CMM 02-2021 and CMM 16-2021 identified electronic monitoring as a complementary monitoring tool, which can operate alongside the deployment of on-board observers. The Commission requested that the SC and CTC provide advice on how electronic monitoring can support the Commission's objectives, including data collection and data verification needs, and consider a plan for the development of electronic monitoring minimum standards.
69. CALAMASUR supported the proposal and invited Members to move forward and noted the added value of Ecuador's compromises, as reflected in their proposal, which still signified a step forward.
70. The Commission did not adopt the proposal from Ecuador (COMM10-Prop03_rev2).
71. The Commission requested SC10 to provide advice to COMM11 on the appropriate level of observer coverage in the Jumbo Flying Squid fishery.



a4. CMM 18-2020 Jumbo Flying Squid Fishery (CHN)

72. China introduced a proposal (COMM10-Prop04) to amend CMM 18-2021 to manage the fishery through fishing effort. China noted that the Jumbo Flying Squid fishery is one of the most important components of SPRFMO fishery and that fishing effort has been steadily increasing in recent years. China recalled that the SC recommended that fishing effort in the squid fishery be limited by both the number of vessels and the total gross tonnage of squid jigging vessels authorized as at 31 December 2020.
73. China convened two working group discussions. Reporting back from those discussions, China noted that questions were raised, amongst others, about the fishing gear covered by the proposal (jigging or others), the criteria for establishing the cap to the current fishing effort (31 December 2020) and to recognise the historic fishing levels where no vessels are currently authorised, the conditions for developing a squid fishery where no historical catches exist, the special situation of developing coastal states, and how the recommendations of the SC should be applied.
74. In order to address concerns from each Member and CNCP and to reach consensus, China produced subsequent revisions of the proposal. Many Members supported the proposal but it did not reach consensus.
75. The Commission did not adopt the proposal from China (COMM10-Prop04_rev6).

a5. CMM 18-2020 Jumbo Flying Squid Fishery (EU)

76. The EU introduced a proposal (COMM10-Prop05) to amend CMM 18-2020 based on the effort limits recommended by SC9. The proposal would cover Members and CNCPs with substantial catches of jumbo flying squid in the Convention Area, while allowing Members and CNCPs without substantial catches, including developing coastal States, to expand or develop their fishery for this species in the Convention Area.
77. Noting the Jumbo Flying Squid fishery effort limitation discussions on COMM10-Prop04, the EU agreed to continue work on the basis of that proposal.

a6. CMM 07-2021 Minimum Standards of Inspection in Port

78. The Secretariat introduced a proposal (COMM10-WP18) to amend CMM 07-2021 based on a recommendation from the Port Inspection Intersession WG and CTC9 to reflect in CMM 07-2021 that port call request amounts are estimated amounts. Chile underlined the importance of this amendment to ensure more accurate data and address the issue of possible discrepancies between the initial port call request and the final port inspection report.
79. **The Commission adopted the amendment to CMM 07-2021 (Annex 7e).**

a7. CMM 16-2021 The SPRFMO Observer Programme

80. The Cook Islands introduced a proposal (COMM10-WP13) to amend CMM 16-2021. The proposal follows a recommendation from the CTC to extend for one additional year (i.e., 1 January 2025) the deadline in CMM 16-2021 regarding the obligation to deploy only observers sourced from accredited programmes onboard vessels fishing for resources for which a minimum level of observer coverage applies. The proposal also incorporates changes to clarify that the accreditation process may be spread over several years without the need for the Final Evaluation Report to be submitted to CTC/Commission until the Member or CNCP pursuing accreditation considers that it is ready.
81. **The Commission adopted the amendment to CMM 16-2021 (Annex 7g).**

a8. CMM 05-2021 Commission Record of Vessels

82. The Cook Islands introduced a proposal (COMM10-WP07_rev1) to amend CMM 05-2021 to ensure that the minimum information required by Annex 1 of the CMM is included for all vessels on the Record of Vessels. The Commission clarified both the Secretariat and Member responsibilities in this regard. Members noted the fundamental importance of the Record of Vessels to ensuring Members, CNCPs and the Secretariat have complete and accurate vessel information available to support effective monitoring, control and surveillance of the SPRFMO Convention area.
83. Following comments from Members, a revised proposal was circulated to the Commission.



84. **The Commission adopted the amendments to CMM 05-2021 (Annex 7d).**

b. New CMMs

b1. CMM for 2022 Industry Acoustic Survey (EU)

85. The EU introduced a proposal (COMM10-Prop06) for an industry acoustic survey on alfonsinos and redbait over the Nazca and Salas y Gomez Ridges in 2022. The proposed survey plan and associated risk assessment were presented to SC9 who noted the proposal and agreed that the research would be beneficial.
86. One Member noted that the alfonsino fishery in the eastern Pacific is captured by the definition of a new or exploratory fishery and noted that the Commission should continue to apply the procedural and substantive requirements of CMM13-2021 for all new and exploratory fisheries.
87. The EU recalled the CTC9 discussion around the proposal where Members expressed different views as to whether the research would require inclusion in the SC Work Plan, a dedicated CMM, or a CMM providing a general framework for research fisheries in the Convention Area. The EU highlighted that the proposal is of scientific nature and that it would therefore be inappropriate to classify it as an exploratory fishery. At the same time, the proposed activities would involve the extraction of a limited amount of fish and would therefore be more invasive than other types of research conducted in the Convention Area. Noting the lack of time to resolve such a complicated matter at the meeting, the EU noted its intention not to pursue further discussion on this proposal at this time but called on the Commission to consider how to distinguish extractive/invasive research activities from exploratory fisheries.
88. Some Members supported the EU that this was a research activity and would like to identify a process for advancing these types of research activities.
89. Chile indicated that they were not in a position to support the proposal due to the lack of an open and transparent framework for extractive research activities and because the SC discussions were inconclusive. Chile also expressed serious concerns that the term ‘encountered’ used by the EU to refer to its vessels’ interaction with large concentrations of alfonsino, which Chile regarded as not factual in light of the CTC discussions’ outcomes.
90. The EU noted the comments from Chile and disagreed that the SC discussions were inconclusive since the language was clear that this research would have been beneficial. The EU noted that the language ‘encountered’ is factual.
91. A discussion ensued on how to progress this matter around the management of extractive research activities and the respective roles of the SC and the Commission. The USA noted that they generally support uninhibited research, but in the framework of bottom fishing research this can only take place in an area that has been assessed. The Cook Islands noted that the Convention required the Commission to facilitate research but that it would be difficult to do so if the Commission was not able to agree on the governance requirements for research to be undertaken (i.e., whether under the auspices of a general framework or not, or whether a CMM was required at all for any research activity). The Cook Islands considered that a general research framework is not currently a prerequisite for research to be undertaken.
92. The Commission agreed that research is to be promoted and that advice was requested from SC10 on how to facilitate and regulate research, including extractive research activities and welcomed views from Commission Members and CNCPs on the same matter.

b2. CMM for Exploratory fishing for toothfish (NZ)

93. New Zealand introduced a proposal (COMM10-Prop07) to extend its exploratory fishery for toothfish for fishing in 2022, 2023, and 2024. Up to two specified New Zealand vessels will be involved with an annual catch limit of 240 tonnes of toothfish (both species combined). Fishing will be restricted to eight research blocks, each with a catch limit of 40 tonnes. The Scientific Committee will review available results each year and advise the Commission on progress. New Zealand noted that the SC9 advised that the proposal was acceptable in terms of Articles 2 and 22, CMM 13-2021 (Exploratory fisheries), CMM 03-2021 (Bottom Fishing), and the BFIAS (Bottom Fishing Impact Assessment Standard).



94. Following comments by Members, a revised proposal was circulated to the Commission.
95. **The Commission adopted COMM10-Prop07_rev1 on Exploratory Toothfish fishing by NZ (Annex 7i).**

c. CMMs for review in 2022

c1. CMM 01-2021 Trachurus murphyi

96. The Commission Chairperson noted a proposal to amend CMM 01-2021 (COMM10-Prop08). He recalled that this CMM was due for review, but that following a decision by the Heads of Delegation it was proposed to roll over, for one year, the current CMM and use COMM10 to exchange ideas on how the review next year should be approached.
97. Many Members supported the proposal to roll over the allocation percentages. Vanuatu noted that allocations are always complicated discussions but that since 2017, SPRFMO had five years of relative tranquillity, which allowed the Commission to advance on other matters and has provided the industry some stability. Vanuatu anticipated a transitional period until SPRFMO arrives again to a longer-term allocation with some compromises along the way. Vanuatu declared itself ready to see that happen and willing to work with Members to make it a reality. Cook Islands intervened to support the roll over and to highlight that they will be seeking allocation at the next Commission meeting, consistent with their position as recorded in 2017.
98. Peru put forward a statement explaining their position and requested that it be included in the Report (Annex 9a).
99. The Chairperson stated that there was no consensus to adopt the amendment to CMM 01-2021 (COMM10-Prop08), and that all efforts to reach consensus had been exhausted. The Commission voted in accordance with the Convention (Article 16) with the result that 13 Members voted in favour, one Member (Peru) against and one Member was not present during the voting (Cuba). **Therefore, the Commission adopted the amendment to CMM 01-2021 (Annex 7a).**
100. Chile put forward a statement explaining their position and requested that it be included in the Report (Annex 9b)

c2. CMM 02-2021 Data Standards

101. The Secretariat introduced the proposal to amend CMM 02-2021 (COMM10-Prop09) noting that the CMM was due for review and that the proposed changes focused on updating the review date and harmonising language.
102. **The Commission adopted the amendment to CMM 02-2021 (Annex 7b).**

c3. CMM 03-2021 Bottom Fishing

103. The USA introduced COMM10-WP10_rev1 concerning the intersessional Work Plan for reviewing CMM 03-2021 and COMM10-WP11 on proposed Amendments to CMM 03-2021, which was merged into proposal COMM10-Prop10_rev2 from the Secretariat on the same topic.
104. The USA noted that CMM 03-2021 is due for review in 2022 and proposed an intersessional process to review CMM 03-2021 and report back to the 2023 Commission meeting. The five interrelated components identified for the review are the scale of management to prevent and assess adverse impacts on VME; the protection scenarios; move on rule; specific 2020 VME encounter and reopening that area; and the encounter review process.
105. NZ indicated that they supported the proposal and the participation of observers in this work.
106. DSCC and ECO NZ proposed additional clarifications to the text.
107. **After incorporating a suggestion from Russia to amend the text of the Work Plan, both the Work Plan (COMM10-WP10_rev2) and the amendments to COMM 03-2021 were adopted (Annex 4c and 7c respectively).**



108. The Commission appointed Ms. Kerrie Robertson (COK) to lead the intersessional process consistently with the Work Plan. The Commission agreed that the intersessional working group would be open to all Members, CNCPs and Observers, and the working group chair would propose working methods and approach following the conclusion of COMM 10. The working group chair requested, Members, CNCPs and Observers to notify her and the Secretariat of their representatives involved in the process by 15 February 2022.

c4. CMM 12-2020 Transshipment

109. This item was discussed under “Amendments to current CMMs” (Agenda item 6 a1).

c5. CMM 14a-2019 Exploratory Toothfish New Zealand

110. This item was discussed under “New CMMs” (Agenda item 6 b2).

c6. CMM 14b-2021 Exploratory Potting Cook Islands

111. This item was discussed under “Amendments to current CMMs” (Agenda item 6 a2).

c7. CMM 17-2020 Marine Pollution

112. The Secretariat introduced the proposal to amend CMM 17-2020 (COMM10-Prop11) noting that the CMM was due for review and that the proposed changes were intended to update the review date and harmonise language.
113. **The Commission revised the review date and adopted the amendment to CMM 17-2020 Marine Pollution (Annex 7h).**

7. Cooperation Priorities

a. Memorandum of Understanding between SPRFMO and CPPS

114. The Secretariat introduced a proposal (COMM10-Prop13_rev1) to extend the MoU between SPRFMO and CPPS. The main amendment concerned the duration of the MoU which was changed from 3 years to indefinite. Following a question from Chinese Taipei, the Secretariat was tasked with reviewing the MoU conditions every 3 years and reporting back to the Commission. The CPPS representative indicated that a workplan to move the MoU forward will be sent to the Secretariat during February 2022 for Members to review.
115. **The Commission adopted the extended MoU between SPRFMO and CPPS (Annex 8a)**

b. Arrangement between SPRFMO and CCAMLR

116. The Secretariat introduced a proposal (COMM10-Prop12) to extend the arrangement between SPRFMO and CCAMLR noting that there are no specific changes apart from the extension of the arrangement for another 3 years.
117. **The Commission adopted the extension of the arrangement between SPRFMO and CCAMLR (Annex 8b).**

c. Other Cooperation Priorities

c1. IMCS Network

118. The Secretariat introduced COMM10-Obs02 inviting SPRFMO to seek membership in the IMCS Network. The Secretariat noted that most Members, CNCPs and other neighbouring RFMOs were already members of that network and that membership provides another avenue to enhance efforts against IUU fishing.
119. **The Commission endorsed the proposal for SPRFMO to join the IMCS Network.**

c2. FAO Deep-Sea Fisheries project

120. The Secretariat and FAO introduced COMM10-Obs01 which provided an update on the development of the FAO Areas Beyond National Jurisdiction (ABNJ) Deep-sea Fisheries under the Ecosystem Approach (DSF) Project and to seek support from SPRFMO in becoming a project partner.



121. The Chairperson of the informal Working Group on the FAO Deep-Sea Fisheries Project, Ms. Kerrie Robertson (COK), recalled that SPRFMO had put forward some comments (COMM10-WP15_rev2) for consideration and clarification from the FAO. The FAO confirmed that it is for SPRFMO to determine which activities to identify as supporting this project and that FAO was comfortable with the proposed changes.
122. **The Commission approved SPRFMO’s participation in the FAO Deep-Sea Fisheries project and endorsed the work plan and co-financing letter in COMM10-WP15_rev2 for the Chair’s signature (Annex 8c).**

c3. UNEP ABNJ Cross-sectoral project

123. The UNEP introduced COMM10-Obs06 on the UNEP ABNJ Cross-sectoral project. She noted that the project has 2 components: Capacity building in countries that have an ABNJ mandate, including management and planning of cross-sectorial initiatives, and the development of knowledge exchange. She invited SPRFMO to cooperate on all activities.
124. Some Members raised issues about the lack of involvement of the SPRFMO subsidiary bodies in the assessment of this project, the financial arrangements or the legal framework, including the letter of commitment expected from SPRFMO. ECO NZ queried about the involvement of civil society in the project.
125. The Commission did not endorse the UNEP ABNJ Cross-sectoral project and invited UNEP to work with the Secretariat intersessionally to address the issues identified by SPRFMO Members.

c4. IATTC

126. The Chairperson of the Commission informed that further to a decision taken at COMM8 to task the Secretariat to conduct the necessary arrangements for the signature of the MoU with the IATTC (COMM8-Report, Annex 10a), the signature was concluded during the COMM10 meeting, on 27 January 2022. The Commission welcomed the signature of the MoU which will increase the level of cooperation and collaboration between the two RFMOs.

8. Other Matters

127. Following a request from the European Union, the Commission agreed that to facilitate contacts between delegations during the SPRFMO meetings, a list of registered participants should be made available to delegations prior to each meeting.
128. Chile welcomed the upcoming 10th anniversary of SPRFMO and requested, in addition to the anniversary campaign, a specific agenda item at COMM11 to allow delegations to intervene and express views on this important milestone, challenges and achievements. The Russian Federation noted that it has offered to host the 2023 Annual Meeting and advised that clarifications may be needed from the Secretariat as to what to prepare for this agenda item. The Secretariat noted that the proposed list of activities is not exhaustive and welcomed other ideas to celebrate as well as independent Member and CNCPs initiatives.
129. The Chairperson of the FAC, Mr Jimmy Villavicencio (Ecuador), underlined that the Vice-Chairperson of the FAC was still vacant and strongly encouraged Members and CNCPs to consider putting a candidate forward. Following this invitation, the Commission welcomed the appointment of Mr. Andres Couve (Chile) as Vice-Chairperson of the FAC.

9. Arrangements for Future Meetings

130. Regarding venues for the next meetings of the Commission, **the Commission welcomed and accepted the Russian Federation’s offer to host the 2023 Annual Meetings (COMM11, FAC10 and CTC10), in St Petersburg from 6 to 15 February 2023, subject to the evolution of the pandemic, and Ecuador’s offer to host the 2024 Annual meeting.**
131. Regarding venues for the next meetings of the Scientific Committee, **the Commission welcomed and accepted Korea’s offer to host the 2022 SC meeting (SC10), contingent on the Covid-19 situation, and Panama’s offer to host the 2023 SC meeting (SC11).**



132. The Commission expressed its appreciation to those Members and CNCPs for their offers to host those meetings and invited Members and CNCPs who have not hosted a meeting yet to consider putting forward an offer to host future SPRFMO meetings

10. Adoption of the Commission Report

133. The Commission adopted its meeting report on 28 January 2022 at 23:13 pm NZDT.

11. Close of the Meeting

134. The meeting was closed on 28 January 2022 at 23:14 pm NZDT.

10TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 24-28 January 2022

COMM 10 – Prop 08

PROPOSAL TO:

<input checked="" type="checkbox"/> Amend <input type="checkbox"/> Create	CMM 01-2021 on <i>Trachurus murphyi</i> (Jack mackerel)
Submitted by: Secretariat	
<p>Summary of the proposal: Following the suggestion made by the SPRFMO Chairperson (Mr Luis Molledo) during the Heads of Delegation meeting from September 2021, this proposal seeks to follow the SC advice regarding the overall TAC increase and to roll-over, for one year only, the allocation percentages. Thus, the follow paragraphs have been amended: Preamble – date for the 2021 SC meeting 5 – Year and tonnage update based on SC advice 10 – Year and tonnage update based on SC advice 20 – Year updates 22 – Year update 31 – Review date and addition of previous CMM 32 – Extension by 1 year to the period that the percentages will be used as a basis for allocation Table 1 – year and individual tonnages update based on SC advice</p>	
<p>Objective of the proposal: <i>(enter here the objective of your proposal or proposed amendments)</i></p> <p>This proposal shows the outcome of applying the latest advice of the Scientific Committee against the percentages listed in Table 2 of CMM 01-2021 (noting that the CMM was originally scheduled to be reviewed in 2022 and the percentages were to be used as a basis for allocation from 2018 to 2021 inclusive).</p> <p>Paragraph 117 of the SC9-Report records that “... the SC recommended a precautionary 15% increase in 2022 catches throughout the range of Jack mackerel- at or below 900 kt. This advice for catch limits in 2022 does not depend on the stock structure hypothesis that is used”.</p> <p>This proposal also suggests reviewing the measure in 2022</p>	
<p>Has the proposal financial impacts or influence on the Secretariat work? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	

To be filled out by the Secretariat:

Ref: COMM10-PROP08	Received on: 10 December 2021
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This document is intended to be one page long only.

CMM 01-2022~~1~~

Conservation and Management Measure for *Trachurus murphyi* (supersedes CMM 01-2021~~0~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on 27 September~~3~~ to 28 October 2021~~0~~ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2021) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2021 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.



3. This CMM is not to be considered a precedent for future allocation decisions.

Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

5. In 2022¹ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~710,702~~ 817,943 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 2022¹ throughout the range of the stock should not exceed ~~782~~ 900,000 tonnes.
11. The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2021 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period:
 - a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
 - b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.
14. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.
15. Except as described in paragraphs 12 and 13 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2021 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
16. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
17. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.
18. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2021 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
19. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2021 (Data Standards).
20. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 2022~~1~~ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 2022~~1~~ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 2022~~1~~ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.
21. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus*

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



murphyi fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.

22. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2022¹) agreed by the Commission, in order to provide updated advice on stock status and recovery.
23. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
24. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2021 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.
26. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of this CMM.
27. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period,



coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 26 above, they agree to:

- a) submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
 - b) report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
 - c) cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.
28. At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.
29. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

30. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

31. This Measure shall be reviewed by the Commission in 2023⁴². The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), CMM 01-2019 (*Trachurus murphyi*), ~~and~~ CMM 01-2020 (*Trachurus murphyi*) and CMM 01-2021 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
32. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2021⁴² inclusive.



Table 1: Tonnages in 2021 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	504 889 581 074
China	49 639 57 129
Cook Islands	0
Cuba	1 745 2 008
Ecuador	9 883 11 374
European Union	47 769 54 977
Faroe Islands	8 670 9 978
Korea	10 027 11 540
Peru (HS)	15 862 18 256
Russian Federation	25 669 29 543
Vanuatu	36 549 42 064
Total	710 702 817 943

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador	1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive as amended in 2020 [and as extended in 2022](#).



10TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 24 to 28 January 2022 (NZDT)

COMM 10 – Report ANNEX 9a

Statement of Peru regarding CMM 01-2022 on *Trachurus murphyi*

Republic of Peru

Peru considers relevant to state the following:

The Convention we all are committed to, was created for the purpose of ensuring the long-term conservation and sustainable use of high seas fishery resources, including straddling fish stocks within the Convention Area established in its article 5.

Therefore, with regards to straddling fish stocks such as *Trachurus murphyi*, the competence of this Commission to adopt conservation and management measures is limited to the high seas and the jurisdictional waters of those coastal States that have declared their express consent to submit them in accordance with Article 20(4)(a) of the Convention.

Peru has not expressed such consent, prerogative which assists the Peruvian State and that the Members of the Commission have not duly taken into account when adopting the previous and current versions of CMM 01- 2022 for *Trachurus murphyi*.

Since the first CMM for *Trachurus murphyi* adopted in the 1st meeting of the Commission in 2013, Peru has objected the way in which the Commission, while having general agreement on the recommended catch limit of *Trachurus murphyi* throughout its range, referred to in paragraph 10 of CMM 01-2022, has been deciding to allocate a large proportion of this recommended catch limit for the whole range to be caught within the Convention Area and the area of application of an specific conservation and management measure adopted by the Commission, as established in paragraph 5 of CMM 01-2022, without taking properly into account the interests, needs and concerns of Peru as a coastal State, including those referred to in Article 4(2)(a, b) of the Convention. Peru has also objected the low share of the catch limit in paragraph 5 of this CMM that is being assigned to Peru according to the percentages in Table 2 of CMM 01-2022 which, it is noted, was drastically reduced, and not reinstated after the 2nd meeting of the Commission in 2014. Furthermore, Peru, as a coastal State, exercises its sovereign rights regarding the exploration, exploitation, conservation and management of fishery resources in its jurisdictional waters in a responsible and sustainable manner, and with due regard for the protection of the marine ecosystem as a whole. Pursuing general objectives that are consistent with those of the “Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean”, and sharing the common interest of ensuring, through proper cooperation mechanisms, the compatibility of conservation and management measures adopted for the Convention Area by the Commission and those established for areas under national jurisdiction by the coastal States for straddling fish stocks such as *Trachurus murphyi*.

The circumstance that Article 4(2) of the Convention states that conservation and management measures adopted for the high seas and those established for areas under national jurisdiction shall be compatible, does not imply that they should be identical, or that measures adopted for one area should prevail over the other. Measures may differ in their form and extent, provided that in substance they pursue the same long-term conservation and sustainability objectives and can be applied without conflicting and without one diminishing the positive effects of each other. In this sense, the Peruvian fisheries management measures rely on similar



management approaches and purpose as those adopted by the regional competent authority, that aim at ensuring the long-term sustainability of the fishery resources and not disrupting the balance of the marine ecosystem.

As noted repeatedly, Peru significantly contributes to the scientific analysis and to the application of rigorous measures of conservation both, while exercising its sovereignty rights within its national jurisdictional waters, and as member of the Commission in the high seas, within the Convention Area.

The Commission has the mandate to establish and allocate catch limits in the Convention Area and those areas in which the Convention allows to do so, and in so doing, it should respect the sovereign and scientific exercise undertaken by the coastal States in their jurisdictional waters.

And, in our view, it is not doing so when in the in the first part of paragraph 27 of CMM 01-2020 (being repeated in CMM 01-2022) for *Trachurus murphyi* it is stated, in an imperative manner, that coastal States that have not given their express consent according to Article 20(4)(a) have agreed to bind themselves to submit as a matter of urgency and within a peremptory period the reports specified in subparagraphs 27(a) and 27(b) of this CMM, on management decisions and actions undertaken in areas under their jurisdiction and, clearly, outside the Convention Area. This is not acceptable to the Peruvian State, particularly when Peru, the only coastal State fishing *Trachurus murphyi* that has not given its express consent, disagrees with this statement and has clearly and previously opposed this part of the decision.

The Commission shall also take into account the respective dependence of the coastal States on the fishery resources concerned, the *Trachurus murphyi* in this case, and not only that of the States fishing on the high seas or in the Convention Area. In our view, and as stated since the 1st meeting of the Commission in 2013, the Commission has been deciding to allocate a too large proportion of the indicative catch limit for the whole range of the stock in paragraph 10 of CMM 01-2021 to be distributed and caught in the area of the Convention. In a process that, although supported by the majority of members, we consider unfair and unequitable. And, while recognizing the particular circumstances that impeded doing so on this occasion, Peru insists that these and other issues objected by Peru be reviewed and solved at the next meeting of the Commission.

Lima, Peru, on January 25, 2022



10TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 24 to 28 January 2022 (NZDT)

COMM 10 – Report ANNEX 7a Conservation and Management Measure 01-2022 Jack Mackerel *(COMM 10 – Prop08)*

CMM 01-202~~1~~⁴

Conservation and Management Measure for *Trachurus murphyi* (supersedes CMM 01-202~~1~~⁰)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out on ~~27 September~~³ to ~~28~~² October 202~~1~~⁰ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2021) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2021 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

5. In 202~~21~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~710,702~~ 817,943 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 202~~21~~ throughout the range of the stock should not exceed ~~782~~ 900,000 tonnes.
11. The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2021 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period:
 - a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
 - b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.
14. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.
15. Except as described in paragraphs 12 and 13 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2021 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
16. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
17. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.
18. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2021 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
19. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2021 (Data Standards).
20. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 202~~21~~²⁴ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 202~~21~~²⁴ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 202~~21~~²⁴ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.
21. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus*

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



murphyi fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.

22. The information collected under paragraphs 11, 13 and 18, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (2022~~1~~) agreed by the Commission, in order to provide updated advice on stock status and recovery.
23. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
24. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2021 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.
26. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of this CMM.
27. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period,



coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 26 above, they agree to:

- a) submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
 - b) report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
 - c) cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.
28. At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.
29. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

30. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

31. This Measure shall be reviewed by the Commission in 2023~~2~~. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), CMM 01-2019 (*Trachurus murphyi*), ~~and~~ CMM 01-2020 (*Trachurus murphyi*) and CMM 01-2021 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
32. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 202~~1~~4 inclusive.

**Table 1:** Tonnages in 2021 fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	504 889 581 074
China	49 639 57 129
Cook Islands	0
Cuba	1 745 2 008
Ecuador	9 883 11 374
European Union	47 769 54 977
Faroe Islands	8 670 9 978
Korea	10 027 11 540
Peru (HS)	15 862 18 256
Russian Federation	25 669 29 543
Vanuatu	36 549 42 064
Total	710 702 817 943

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	0.0000
Cuba	0.2231
Ecuador	1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2021 inclusive as amended in 2020 [and as extended in 2022](#).



10TH MEETING OF THE SPRFMO COMMISSION

Held virtually, 24 to 28 January 2022 (NZDT)

COMM 10 – Report ANNEX 9b Statement of Chile regarding CMM 01-2022 on *Trachurus murphyi* *Republic of Chile*

Chile's statement at the adoption of the Jack mackerel measure for 2022
Vice Ministry of Fisheries, Ms Alicia Gallardo
25.01.2022

Mr Chair,

Distinguished delegates from SPRFMO Commission members, cooperating non-contracting parties, and observers;

Dear friends and colleagues;

It is my pleasure to address the SPRFMO Commission at the Tenth Meeting of our organisation. We have come a long way since the 2007 interim measures first regulating the jack mackerel fishery on the high seas, the adoption of the SPRFMO Convention in 2009 and our first meeting as Commission in Auckland in 2013.

SPRFMO is today a reliable organisation that boasts achievements that very few other RFMOs can show. One of them is the recovery of the jack mackerel fishery from a state of near-collapse in the early 2010s, one of the rare success stories in international fisheries. Our organisation has much to show close to its 10th anniversary, also beyond the management of the jack mackerel fishery.

Unfortunately, the impact of the COVID-19 pandemic still resonates in our work. Although the virtual format has been a most valuable tool, and we have made progress in some areas in the last two years, it is undeniable that the pandemic's restrictions have forced us to delay or postpone essential discussions.

One such decision initially set to be debated at this meeting concerns a central aspect of SPRFMO: participation and fishing rights in the jack mackerel fishery. A substantive discussion should occur in 2023 after we have agreed on the rollover of the current agreement. However, this issue is too important for my delegation and, therefore, it is here, distinguished delegates, that in my capacity of Vice-ministry of Fisheries of Chile, I would like to make a few points under this agenda item.

As you all remember very well, at the 5th SPRFMO Commission meeting held in Adelaide in 2017, members agreed by consensus on the participation percentages in the fishery, intended to last for five years. The Adelaide agreement proved very successful. It provided the certainty and confidence that directly supported the recovery of the jack mackerel fishery and delivered a straight framework to carry on sustainable fishing operations. Since then, SPRFMO members have acted with a sense of long-term responsibility and a shared determination that have benefited us all. My country offered proof of this purpose, demonstrated by giving consent to adopt a TAC that applied throughout the range of the fishery, including our EEZ under Article 20 paragraph 4 of the SPRFMO Convention.



Mr Chair, Chile has followed the implementation of the 2017 agreement closely. The facts are well-known to you all. Between 2017 and 2021, five out of ten SPRFMO members with jack mackerel quota have operated and fished the whole or part of their annual allocation. China caught 32.2% of its allocation, the Republic of Korea 30.2%, the European Union 45.7%, the Russian Federation 33.4%. Chile has fished nearly 120% of its quota given the transfers by SPRFMO members, effectively fishing 78.4% of all the jack mackerel catches throughout the South-East Pacific. Other members that were given quota allocation do not record catches of jack mackerel on the high seas under the 2017 agreement.

Under the current agreement, Chile was allocated 64.6% of the regional TAC. Yet, we have fished 78.3% of the total catches of jack mackerel from 2017 to 2021. These numbers speak for themselves. They underline that Chile is the leading jack mackerel fishery in the South-East Pacific. Equally, they show that Chile has paid a cost through quota transfers that have benefitted SPRFMO members.

Distinguished delegates, the next meeting will be crucial for managing the jack mackerel fishery and our organisation's stability. We will decisively favour another 5-year agreement consistent with the reality of the fishery, balancing fairness with stable fishing rights.

Crucially, we would like to see all SPRFMO members supporting such a future agreement. We endorse and respect the right of all coastal states to adopt unilateral measures in their waters for straddling stocks as recognised in international law, including the SPRFMO Convention. Still, they must be compatible with those adopted by the Commission because otherwise, we run the risk of exceeding the sustainable limits advised by science. Therefore, Chile invites and encourages all SPRFMO members to be part of a future agreement that can bring stability to the management measures throughout the whole range of the jack mackerel stock. We hope to start informal discussions long before the next meeting in 2023.

Finally, we would like to thank all SPRFMO members for the inter-sessional work, especially the cooperative discussion for the jack mackerel roll-over we have adopted. Thank you Mr Chair.

11TH ANNUAL MEETING OF THE COMMISSION MEETING REPORT

13 to 17 February 2023

Document name: SPRFMO COMM11-Report

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11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM11 – Report

1. Opening of the Meeting

1. **The Chairperson of the Commission, Mr Luis Molledo (European Union), opened the 11th Annual Meeting of the SPRFMO Commission (COMM11).** He welcomed all participants to the meeting and introduced Mr Julio José Prado, Minister of Production, Foreign Trade, Investment and Fisheries who addressed the participants with opening remarks on behalf of the government of Ecuador (Annex 9a).

a. Meeting Arrangements

2. The Secretariat provided an overview of the meeting arrangements and facilities.

b. Adoption of the Agenda and Participation

3. **The Commission adopted the Meeting Agenda** (COMM11-Doc01_rev1, Annex 1) without amendments. The list of Participants is contained in Annex 2.

c. Meeting Documents

4. **The Secretariat introduced the List of Meeting Documents (COMM11-Doc03_rev2) including the meeting programme** (COMM11-Doc04_rev4, Annex 3), **which was adopted by the Commission.** The list and meeting schedule were updated throughout the meeting.

d. Other

5. Chile and Ecuador provided opening statements (Annex 9b and 9c).

2. Membership

a. Status of the Convention

6. New Zealand, as the Depositary of the SPRFMO Convention, provided an update of the status of the Convention (COMM11-Doc05), noting that there have been two new notifications of ratification, approval or accession since the last Commission Meeting. One notification of accession from Panama on 7 June 2022 resulted in Panama becoming a Member on 7 July 2022. The second notification of accession was received from Belize on 23 January 2023. The latter will become a Member 30 days following on 22 February 2023.

3. Scientific Committee (SC)

a. Report of the ninth meeting of the SC (SC10)

7. The Chairperson of the Scientific Committee, Dr James Ianelli (United States), presented the report and scientific advice of the 10th SC meeting (SC10), held in person and online from Seoul, Korea from 26 to 30 September 2022. He expressed his gratitude to the Vice Chairperson of the SC, Dr Niels Hintzen (European Union), and the Data Manager, Dr Tiffany Vidal, for their valuable support. He noted that 24 meetings were held over 39 days and acknowledged the work of member scientists and thanked them for their contributions.
8. The Commission noted the following highlights from the SC:



- a. In 2022, two jack mackerel related workshops were held: the SPRFMO Jack Mackerel Benchmark Workshop (SCW14) and joint Jack Mackerel Modelling Workshop. Considering the estimated increase in jack mackerel biomass, the SC recommended a precautionary 15% increase in 2023 catches (i.e., at or below 1,035 kt) throughout the range of jack mackerel. Under the umbrella of jack mackerel research, task groups have been established or planned to address specific research on jack mackerel aging and jack mackerel connectivity. Work on Management Strategy Evaluation (MSE) continued including a workshop held before COMM11.
 - b. Work on deepwater issues was largely progressed through intersessional work. With regards to orange roughy, the SC continued to apply a precautionary approach to setting catch limits and recommended a range of TACs for orange roughy. The SC recommended that the updated “Classification guide for potentially vulnerable invertebrate taxa” is used by observers and fishers to identify Vulnerable Marine Ecosystem (VME) indicator taxa. The SC also recommended that the new habitat suitability models be added to the geodatabase of habitat suitability layers for VME indicator taxa. A number of other deepwater issues were addressed that feed into management measures requested by the Commission including refinements to bycatch evaluations, and specifics related to the appropriateness of CMM 03 (BF-IWG).
 - c. On squid matters, the Scientific Committee’s advice from SC9 on effort control and CMM development was reconfirmed. The SC agreed to add a new item to the multi-annual workplan to develop a task group to coordinate data required for stock assessment models, with a goal of developing a model that can account for variability in spatial patterns. The SC noted that CMM development should focus on monitoring CPUE trends and constraining fishing effort as a precautionary approach. Genetic studies were planned throughout the species’ distribution.
 - d. The SC conducted a review of the habitat monitoring intersessional activities. The habitat monitoring working group agreed on a single classification protocol for fishing vessels deploying digital acoustic systems. The SC recommended the continuation of the work on acoustic data towards integrating this information with the assessment modelling.
 - e. Based on a working group report on catch composition research, the SC noted that the required catch (and bycatch) reporting of all species in all fisheries activity is reported inconsistently. They also recommended that the Commission develop a working definition of the existing fisheries in SPRFMO covered by existing CMMs. The SC also recommended the development of assessments for species that are subject to targeted fishing operations, in line with the tier-based assessment approach.
9. Chile queried whether the quota arrangements could be revised given the healthy stock assessment and suggested that a moderate increase of the 15% ceiling of the Harvest Control Rule (HCR) as a provisional measure should be considered. The SC Chair responded that this could feed into the development of the MSE to evaluate aspects of frequency and magnitude of changes in catch advice via the management procedure.
 10. Some Members noted that the growth of the jack mackerel stocks was positive but expressed disappointment that the TAC had a 6.6% over catch in 2022, marking the fourth time in consecutive years that catches by Peru had caused the TAC to be exceeded. They expressed concern that repeated over-catches of the TAC could damage the reputation of the organisation with respect to its ability to effectively manage the jack mackerel resource. Peru was encouraged to exercise its utmost efforts this year to restrain its catches in national waters, in accordance with article 26 of CMM 01-2022 so that the TAC is not exceeded in 2023.
 11. Peru is a State party to the SPRFMO Convention, but as a developing coastal State, it has not given its express consent to submit its jurisdictional waters to the jurisdiction of the Commission. Consequently, in exercising its sovereign rights, it issues measures in relation to existing resources in such waters that are compatible with those adopted by the Commission. These measures are also supported by the best scientific information available, based on research carried out by the Peruvian Sea Institute (Instituto del Mar del Perú) at different times of each year. The results of these investigations are also provided to the Scientific Committee of the SPRFMO, where Peru participates actively and consistently. Likewise, Peru emphasised that, as it has indicated on various occasions, it directs 100% of its jack mackerel catches for direct human consumption, in order to guarantee the food security of its population and reduce a severe situation of child malnutrition. At



the same time, Peru indicated that jack mackerel fishing is linked to the activity of small artisanal fishermen, making it the basis of economic income and subsistence for an important vulnerable sector. Peru highlighted that it applies a precautionary approach; dictates measures for its jurisdictional waters that are compatible with those adopted by the Commission for the area of the Convention, with a view to ensuring the sustainability of the resource, without this implying that the measures must be identical; and informs the organisation about its measures, without the Scientific Committee ever observed or objected the justification and technical support of those. In this regard, the delegation of Peru rejected the declarations of the delegation of Vanuatu.

12. DSCC and ECO NZ shared concerns related to deep water fisheries in areas such as the stock assessments, catch limits, bycatches, sensitive benthic areas and bottom fishing. They expressed the need for an enhanced precautionary approach and restrictions on activities and allocations. The HSFG expressed concern that more restrictive management measures were not necessary, and decisions would affect the fishing industry and disrupt livelihoods. (DSCC and HSFG statements in full at Annex 9d and 9e)
13. Korea sought clarification whether the total jack mackerel catch of 2022 (including the over catch) was considered in determining the 2023 jack mackerel TAC. The SC chair confirmed that it was considered within the 15% and would not have an impact on the 2023 TAC.
14. With regard to the catch composition research on alfonsino, the European Union expressed concern about the Scientific Committee's finding that the (by)catches of alfonsino or redbait are inconsistent with the main parameters observed in the targeted fishery on Jack mackerel from 2007-2021 in the SPRFMO Convention Area. The European Union noted that one Member had provided data for one year only (2021). They asked if this had any impact on the working group's analysis, noting that all other Members active in the jack mackerel fishery had provided data for the period 2007-2021. The Chair of the working group responded that the ambition to reflect the variability in catch composition for all Members could not be achieved due to the single year of data provided by the one Member that was insufficient to draw any conclusions for that Member. The European Union also noted the Scientific Committee's finding that some fishing activities targeted species that were not covered by an established or exploratory fishing CMM and asked if the SC should recommend developing assessments for such species to ensure that their exploitation is consistent with the precautionary approach. The SC Chair explained that the SC dealt with such species with the tier-based assessment approach adopted in 2018. This process evaluates catch records and vulnerabilities to create priorities for assessment needs and any added data collection requirements.
15. The Russian Federation asked the SC Chair as part of the current discussion on jack mackerel and catches of alfonsino and redbait, if it was possible to develop conservation measures for these species and build in conservation methods for these fisheries. The SC Chair indicated that the catch of small amounts of abundant stocks would not be a high priority but stocks with increasing catches could be. Stock, of which we know little, would require a cautious approach and exploratory fisheries would have built in precautionary measures to better understand the resource and lead to successful fisheries.
16. **The Commission accepted and endorsed the SC10 report and commended the Chairperson of the SC, the Vice-Chairperson of the SC, and Members of the SC for their excellent work.** They thanked Panama for the offer to host the SC11 meeting in 2023.

b. 2023 SC Workplan

17. The Chairperson of the SC introduced and highlighted some of the key activities of the 2023 Scientific Committee Multi-Annual Workplan (COMM11-Doc06_rev1).
18. During the discussions at the meeting, the workplan was further amended to include activities identified as priorities for the work of the SC by the Commission. The revised workplan was presented to the Commission for its consideration (COMM11-WP17_rev1).
19. **The Commission adopted the SC Workplan as revised** (COMM11-WP17_rev1, Annex 4a).



4. Finance and Administration Committee (FAC)

a. Report of the FAC10

20. The Chairperson of the FAC, Mr Jimmy Villavicencio (Ecuador) presented the FAC report and its recommendations. He highlighted that the FAC had made good progress through its agenda in relation to SPRFMO's financial position and several staffing matters.
21. **The Commission accepted the advice and recommendations of the FAC. In particular, the Commission agreed to establish a Consultation Group to assist in developing a Secretariat Staffing Strategy for consideration in 2024.**
22. **The Commission thanked Panama for its offer to host the Scientific Committee meeting in Panama City.**
23. The Commission noted that there were no offers during the FAC to host the 2024 annual meeting of the Commission.

b. Budget

24. **The Commission adopted the budget (COMM11-WP09_rev7, Annex 5a) and schedule of contributions (COMM11-WP22_rev2, Annex 5b). In doing so, the Commission agreed to include \$30,000 in the Contingency Fund, taking its balance to \$189,327. The Commission agreed to draw \$251,908 from the accumulated surplus account to partially offset the increase for Members in the schedule of contributions.**
25. The Commission authorised the Executive Secretary to draw up to \$45,000 from the accumulated surplus account for the development of a new database (this amount is included in the \$130,000 provided for in the budget) if required. The Executive Secretary was authorised to draw \$80,908 from the accumulated surplus account to fund the annual meeting in 2024. The Commission noted that this would reduce the balance of the accumulated surplus account to \$176,908. **Considering Regulation 4.5, the Commission agreed that any funds in excess of three-months operating expenses should remain within the accumulated surplus account.**

5. Compliance and Technical Committee (CTC)

a. Report of the CTC10

26. The Chairperson of the CTC, Ms Katherine Bernal (Chile), presented the report of the CTC10. She highlighted the CTC discussions and corresponding recommendations on proposals to introduce a new decision and to amend existing CMMs, Provisional IUU Vessel List, Provisional Compliance Report, renewal of CNCPs, and the implementation reports presented by the Secretariat, including the accreditation of observer programmes.
27. The CTC Chairperson highlighted that CTC's review of the 119 possible issues of compliance pertaining to VMS from the 2020-21 and 2021-22 reporting periods took a significant amount of time during its sessions. There was a systematic review of the VMS issues, with each of the issues being addressed case by case. It was noted that most of the cases had common circumstances (e.g., technical issues, data provided late or in the wrong format) allowing a consistent approach. The CTC first considered whether the Member or CNCP met its obligations under relevant paragraphs of CMM 06-2022 then used this consideration to determine whether the Member or CNCP was compliant or non-compliant with respect to its obligations. After compliance or non-compliance had been determined, CTC evaluated available information to inform the appropriate compliance status based on the criteria in CMM 10-2020, Annex 1. This included consideration of the length of VMS data gaps, the nature and level of Member or CNCP monitoring of and responses to its vessels' VMS issues, and whether the data was subsequently provided to the Commission.
28. The CTC recommendations include:
 - a. addressing future VMS possible compliance issues using an approach like that undertaken this year;
 - b. the adoption of three proposals to amend CMMs:
 - i. CMM 05 (Record of Vessels - SEC),



- ii. CMM 14b (Exploratory Potting Fishery – COK),
- iii. CMM 14e (Exploratory Toothfish Fishery – EU).
- c. the granting of accreditation to two observer programmes, the People’s Republic of China and CapMarine,
- d. broadening the Inspections implementation report following the adoption of a new high seas boarding and inspection CMM to include information pertaining to boarding and inspections at sea.

29. **The Commission accepted the CTC10 Report and adopted all its recommendations.**

b. Final Compliance Report

30. The CTC Chairperson presented the Provisional Compliance Report (COMM11-WP14) noting that the report included a review of VMS reporting issues carried forward from 2020-2021 Reporting period. She also noted that there were two outstanding issues on which the CTC was unable to reach agreement and these were being forwarded to the Commission for consideration. One pertaining to CMM11-2015 (Boarding and Inspection) and the other pertaining to CMM13-2021 (Exploratory Fisheries) for the past 2 reporting periods.
31. With respect to the outstanding CMM 11-2015 issue, there was a disagreement between China and some Members on China’s implementation of CMM 11-2015. While China considered that the boarding and inspection Member was not legally authorised to conduct HSBI activities and did not meet the requirements of CMM 11-2015, some Members strongly disagreed with the interpretation by China and noted that the inspections were authorised and conducted in accordance with CMM11-2015.
32. The Commission noted that a new HSBI measure was adopted at COMM11 which is more detailed and comprehensive and provides SPRFMO specific procedures, replacing the current measure. In light of this important step and, as a result, compliance with CMM 11-2015 would not be an ongoing concern Members were willing to not take an assessment decision for China against this obligation.
33. **The Commission did not assign a compliance status for China against this obligation.**
34. With respect to the outstanding CMM 13 issue, the Russian Federation highlighted that the alfonsino (BYS) catch was the result of bycatch versus a directed fishery, and the vessel followed existing requirements and reported all catches correctly. The Russian Federation requested a status of “Compliant” or “Non-Assessed”.
35. The European Union noted that the vessel had identified jack mackerel (CJM) as the target species in their 2020 fishery and that the SC concluded from its catch composition analysis that catches of BYS are inconsistent with a jack mackerel fishery. The European Union considered that a compliance status of "Priority Non-Compliant" would be appropriate in this instance. Other Members supported this view.
36. Upon further discussion the Commission agreed that additional analyses be sought from the SC’s working group on Catch Composition and that Russia provide their historic catch data (2007-2022) to the SC for that purpose.
37. **The Commission deferred the issue on alfonsino catches until the next annual meeting and tasked the SC with undertaking additional catch composition analyses incorporating the historic Russian catch data.**
38. **The Commission adopted the Final Compliance Report (COMM11-WP23, Annex 6a).**

c. 2022 IUU Vessel List

39. The Chairperson of the CTC presented the Provisional IUU Vessel List (COMM11 WP08_rev1) containing two Chinese flagged vessels that were proposed for listing this year and noted that there were no vessels on the 2022 SPRFMO IUU Vessel List.
40. China notified the Commission that the authorities of the two Chinese vessels on the Provisional IUU vessel list had directed the vessels not to accept the boarding and inspection team based on its interpretation of CMM 11-2015.
41. The Commission agreed to not include the vessels into the final IUU vessel list.



42. **The Commission adopted the 2023 Final IUU Vessel List, which contains no vessels** (COMM11 WP18, Annex 6b).

d. Status of Cooperating non-Contracting Parties (CNCs)

43. The CTC assessed the applications from three existing CNCs, Belize, Curaçao, and Liberia, for CNC status and recommended renewal to the Commission.
44. **The Commission accepted and renewed the CNC status for Belize, Curaçao, and Liberia.**

6. Conservation and Management Measures (CMMs)

a. Amendments to current CMMs

a1. CMM 03a-2021 Deepwater Species (NZ)

45. New Zealand introduced their proposal (COMM11-Prop12) on deepwater species. This proposal seeks to update the catch limits for orange roughy in the Louisville Ridge (and split into Central, North and South), West Norfolk Ridge, Lord Howe Rise and Northwest Challenger, based on the updated stock assessment (SC10-DW01_rev1) and SC10 recommendations (SC10-Report). It also seeks to extend the catch limit for the Westpac Bank area from 2023 to 2024 fishing year due to an aborted voyage in 2022 to perform an acoustic biomass survey after COVID-19 was detected on the vessel and include an Annex describing the location of Fisheries Management Areas (FMAs).
46. Following discussion on the various aspects of the proposal, the proposal was subsequently amended (COMM11-Prop12_rev2)
47. **The Commission adopted the amendment to CMM 03a-2021** (COMM11-Prop12_rev2, Annex 7c).

a2. CMM 11-2015 Boarding and Inspection (USA)

48. The United States of America introduced their proposal (COMM11-Prop16_rev1) to amend CMM 11 on Boarding and Inspection. This proposal seeks to implement specific measures to govern high seas boarding and inspection of fishing vessels in the Convention Area, in accordance with Article 27 of the Convention. The proposal sets forth general obligations, provisions regarding: interpretation and implementation, participation, specific boarding and inspection procedures, the use of force, inspection reports, serious violations, enforcement, annual reporting to the Commission, Commission coordination and oversight, and settlement of disagreements.
49. Some Members expressed concern on the use of force and other issues, in order to limit and verify the use of force to the extent reasonable. The measure was revised to address these concerns raised.
50. **The Commission adopted the amendment to CMM 11-2015** (COMM11-Prop16_rev1, Annex 7g).

a3. CMM 12-2020 Transshipment (ECU)

51. Ecuador introduced their proposal (COMM11-Prop10_rev1) to amend CMM 12 on transshipments. This proposal seeks to standardise transshipment reporting in the Convention Area across all fisheries.
52. Following discussion and subsequent amendments, including incorporating elements of the Secretariat proposal on transshipments (COMM11-Prop06_rev1), Members accepted the revised proposal (COMM11-Prop10_rev5).
53. **The Commission adopted the amendment to CMM 12-2020** (COMM11-Prop10_rev5, Annex 7h).

a4. CMM 14b-2022 Exploratory Potting (COK)

54. The Cook Islands introduced their proposal (COMM11-Prop09_rev1) to amend its Exploratory Fishery (CMM 14b). The proposal seeks to extend the Cook Islands' exploratory fishery for one further year (to 2024) and adds a definition for a fishing trip.
55. **The Commission adopted the amendment to CMM 14b-2022** (COMM11-Prop09_rev1, Annex 7i).



a5. CMM 14e-2021 Exploratory Fishing for Toothfish (EU)

56. The European Union introduced their proposal (COMM11-Prop14_rev1) to amend its Exploratory Fishery (CMM 14e). The European Union explained that for operational reasons, it is necessary to extend the duration of the last exploratory trip under CMM 14e-2021 by two weeks, from 31 October to 15 November 2023. This will be conditional upon implementing, during that two-week period, the additional seabird mitigation measures, as those implemented in 2021.
57. **The Commission adopted the amendment to CMM 14e-2021** (COMM11-Prop14_rev1, Annex 7j).

a6. CMM 16-2022 Observer Programme (PER)

58. Peru introduced their proposal (COMM11-Prop15) to amend CMM 16. This proposal sought to incorporate an annex into the CMM 16-2022 in accordance with paragraph 4 of the CMM 16-2022. This annex would enable an alternative observer programme in accordance with the recommendations established in paragraph 14 of the Report of the 10th Meeting of the SPRFMO Commission (COMM10).
59. There was discussion on the proposal resulting in several revisions. Some Members expressed concern whether safety at sea of observers was adequately addressed. It was also noted that Peru's changes may require amendments to other CMMs to fully achieve the objectives.
60. Following discussions Peru provided a revised proposal for amendments for CMM 16-2022 (COMM11-Prop15_rev4).
61. **The Commission adopted the amendment to CMM 16-2022** (COMM11-Prop15_rev4, Annex 7k).

a7. CMM 18-2020 Jumbo Flying Squid (EC)

a8. CMM 18-2020 Jumbo Flying Squid (EU)

a9. CMM 18-2020 Jumbo Flying Squid (USA)

a10. CMM 18-2020 Jumbo Flying Squid (CHN)

a11. CMM 18-2020 Jumbo Flying Squid (KOR)

62. Following the CTC discussion, a Working Group (WG) was established, led by Ms Alexa Cole (United States), to work on a combined text to amend CMM 18 (jumbo flying squid). The working group met on several occasions and the Chair of the WG presented a proposal for consideration by the Commission. The proposal, COMM11-WP11_rev3, reflects various aspects of the individual proposals, particularly in respect to effort limitations, the level of observer coverage, access to fisheries for developing coastal states, and the limitations on the number and total gross tonnage effort of squid fishing vessels.
63. Regarding the level of observer coverage, many Members supported an increase to a minimum observer coverage level of 10% based on discussions during the SC10. Some Members expressed concern about the implication of this increase for operational reasons and considered that existing level of observer coverage meets scientific needs for data collection of the squid jigging fishery. There was considerable discussion on the level of observer coverage, but no consensus was reached. Many Members expressed disappointment that the level of observer coverage was not increased.
64. **The Commission adopted the amendment to CMM 18-2020** (COMM11-WP11_rev3, Annex 7l).

a12. CMM 05-2022 Record of Vessels (SEC)

65. The Secretariat introduced their proposal (COMM11-Prop03) to amend CMM 05 (Record of Vessels). This proposal sought to update the title of the CMM to reflect the current state of the Record of Vessels; clarify the minimum data requirements for both the addition of new vessels as well as the authorisation or reauthorisation of vessels already on the Record of Vessels; to move the external markings data element from the optional to mandatory data fields, to edit the text corresponding to vessel photos for clarification, and to remove an outdated reference to physical photograph submissions.
66. **The Commission adopted the amendment to CMM 05-2022** (COMM11-Prop03_rev1, Annex 7d).



a13. CMM 08-2019 Gillnets (SEC)

67. The Secretariat introduced their proposal (COMM11-Prop02) to amend CMM 08 (Gillnets). This proposal seeks to update the language regarding vessel reporting consistent with CMM 06 (VMS) requirements, modify the advance notification time before entry to the Convention Area, incorporate the ALDFG provisions of CMM 17 and add a review date clause.
68. **The Commission adopted the amendment to CMM 08-2019** (COMM11-Prop02, Annex 7f).

b. New CMMs

b1. Proposed decision on Climate Change (USA)

69. The United States put forward its proposal (COMM11-Prop18_rev1) seeking to make climate change a priority in meetings of the Commission and its subsidiary bodies. The United States put forward its view that SPRFMO needs to prepare for the future impacts of climate change on fisheries and expressed its hope that SPRFMO will adopt comparable measures to other similar organisations on climate change.
70. The Commission welcomed the proposal from the United States, and Members expressed appreciation to the proponent for submitting this timely proposal. Many Members noted the importance to include climate change considerations in the SPRFMO discussions.
71. **The Commission adopted the decision on Climate Change** (COMM11-Prop18_rev1, Annex 8a).

b2. Proposed decision regarding Language (ECU)

72. Ecuador put forward its proposal (COMM11-WP16_rev1) seeking to guarantee that, in the future, simultaneous interpretation in English and Spanish is provided at Scientific and Commission meetings and that official documents of SPRFMO are available to Members and CNCs in Spanish as well as English.
73. Despite the fact there was general acknowledgement of the value of having Spanish language capacity and to recognise the participation and contribution of the Spanish-speaking Members in SPRFMO, the Commission considered that before a final decision could be taken there was a need to better understand the financial and administrative implications of this decision.
74. **The Commission tasked the Secretariat with developing a paper to assess the implications of the proposal to present at COMM12.**

c. CMMs for review in 2023

c1. CMM 01-2022 Trachurus murphyi (KOR)

75. Korea introduced its proposal (COMM11-Prop21) to amend CMM 01 (*Trachurus murphyi*). This proposal included a requirement for Members and CNCs without gross tonnage limits to submit an effort management plan. The proposal also suggested that in cases where there is overcatch, then that amount is deducted from the total allowable catch (TAC) advised by the Scientific Committee. Finally, the proposal suggested extending the application of the percentages in the current CMM by one year, and to commence a process to develop an allocation framework.
76. Following the decision taken at COMM10 a discussion followed on the revision of the allocation criteria where Members expressed their views on issues related to the duration, scope, and criteria to be considered in an allocations decision.
77. A jack mackerel working group (WG), chaired by Mr Michael Brakke (United States), was established to facilitate discussions on the jack mackerel quota and allocation.
78. The chair of the working group reported back to the Commission on the progress made in the working group. The WG chair thanked the WG participants and those who supported the meeting for their constructive engagement in the process. The WG chair summarised the process and the criteria applied in the allocation debate, including Article 21 and other relevant provisions of the Convention, which were used to consider allocation requests by current participants in the fishery and new entrants, and to seek potential solutions on



allocation consistent with past practice and the Convention. The chair of the working group acknowledged that despite several rounds of discussions, the working group was unable to reach consensus on any of the various options discussed. The chair of the working group provided allocation tables to the Chairperson of the Commission that he believed attracted support from most members in the WG as a potential package consistent with relevant criteria in the Convention.

79. The Chairperson of the Commission integrated the allocation table into a Chair's Proposal (COMM11-WP24_rev1). The proposal provides a 10-year jack mackerel quota arrangement and allocation table for consideration, and also increases, for 2023 only, the 15% ceiling for TAC increases under adjusted Annex K to 20%. The proposal also incorporates some elements of the proposal presented by Korea (COMM11-Prop21).
80. Several Members expressed concern that provisions of Article 21 of the Convention were not given appropriate consideration. Further it was expressed that they could not agree to forgo any of their allocation to increase the allocation to others. They suggested that the Members that agreed to support increases for Chile and new entrants should be the ones contributing the quota to support these increases.
81. Russia noted that no documents were provided in support of claims of consistency with Article 21 of the Convention in accordance with regulation 4 of the Rules of Procedure. Many Members agreed with the procedural basis for the working group as well as for proceeding on the basis of the Chair's proposal, as per past practice.
82. Vanuatu made a statement (Annex 9f)
83. Many Members supported Vanuatu's statement and expressed that the proposal does consider Article 21 and also reflects past precedence such as the 2017 allocation arrangement and the past allocations to new entrants. They noted that a significant biomass of jack mackerel is concentrated in Chilean waters. They expressed that, except for the new entrants and the increase to Chile, the remaining increases were allocated proportionately. These Members noted that claims of inconsistency with Article 21 had not been substantiated whereas claims of consistency with Article 21 had been substantiated.
84. Some Members noted that the current adjusted-Annex K harvest scenario which is used to guide catch advice for jack mackerel in the SPRFMO region was developed as a rebuilding plan. The selection of the "15%" maximum change showed that, based on analyses done in 2014, this had the highest probability of the stock rebuilding in the shortest amount of time (noting that this was the only value on TAC limits that was fully evaluated). The SC10 report Table A10.37 which includes alternative catch scenarios shows that the probability that catches in the range (between a 15 - 20% increase from the 2022 advice) keep the stock above B_{MSY} by 2028 is greater than 98%.
85. The Chairperson of the Commission advised that, despite five days of discussion, it was not possible to reach consensus in the working group. Several options had been explored and the Chair's proposal represented the one with the most support. All attempts to obtain consensus had been exhausted and it was necessary to put the proposal to a vote as per Rule 7 of the Rules of Procedure.
86. Russian Federation put forward a statement (Annex 9g).
87. Peru made a statement (Annex 9h).
88. The Commission voted and the result of the vote was 13 Members supporting the adoption of the proposal and three Members not supporting the adoption.
89. **The Commission adopted the proposal** (COMM11-WP24_rev1, Annex 7a).

c2. CMM 03-2022 Bottom Fishing (COK)

90. The Chairperson of the Intersessional Working Group (IWG) on Bottom Fishing, Ms Kerrie Robertson (Cook Islands) presented COMM11-Doc07, explaining that the IWG's work led the development of COMM11-Prop08
91. The IWG Chairperson explained that the IWG was established by COMM10 to deliver a review of CMM 03-2022 to COMM11. Australia, Chile, the Cook Islands, the European Union, New Zealand, Peru, and the United



States all participated in the working group, along with SIOFA, the HSWG, DSCC, Greenpeace and ECO NZ. THE IWG Chair thanked all participants and the Secretariat for their work.

92. The IWG Chair explained that the IWG had reviewed the entire CMM, with focus on 5 specific topics: The appropriate scale of management to assess and prevent significant adverse impacts (SAIs) on Vulnerable Marine Ecosystems (VMEs), spatial management (i.e., protection) scenarios, the move-on rule (i.e., weight thresholds and move-on distance), the encounter review process and the 2020 VME encounter. The Review considers scientific, legal and management factors and documents all scientific advice provided to the Commission on these topics. It also clearly documents the history of the CMM and areas for future work.
93. The IWG Chairperson presented COMM11-Prop08 on behalf of the IWG, explaining that it implemented the regulatory elements of the IWG's advice and recommendations, and noted the scientific elements would be included in the SC Multi-Annual Work Plan. The IWG Chairperson noted that COMM11-Prop08 recommended three different options for establishing a minimum level of protection for vulnerable marine ecosystem taxa: 70, 80 or 90%.
94. The IWG Chair clarified that the IWG concluded it was essential to prevent SAIs on VMEs, and that the Commission's legal obligations had been comprehensively analysed. To this end, the IWG had noted the Commission's obligation under Article 192 of UNCLOS to protect and preserve the marine environment, as well as the requirements of the SPRFMO Convention. The IWG had concluded that the Commission had a range of options available to it that could satisfy its legal obligations. The IWG had also considered the United Nations General Assembly Sustainable Fisheries Resolutions as they relate to bottom fishing. The IWG concluded that its advice and recommendations, which were reflected in COMM11-Prop08, were consistent with both its legal obligations and the General Assembly Resolutions.
95. The IWG Chairperson also highlighted that there was a clear case for changing the CMM, referencing the current best available science as documented in the review, the technical uncertainties which had been faithfully described, and scientific advice recommending more precautionary management measures for areas and taxa at higher risk from bottom trawl fisheries in the Northwest Challenger, Central Louisville and Southern Louisville fishery management areas.
96. The Commission thanked the IWG for its hard work and quality report.
97. Many Members considered that COMM11-Pop08 represented a significant step forward in preventing significant adverse impacts on VMEs. Some Members considered 80% would be the most appropriate minimum level of protection recognising the scientific uncertainties. Other Members considered 70% would be suitably precautionary, recognising that the modelling level of protection for many taxa would be much higher than 70% in practice. New Zealand and Australia also noted that in addition to spatial protection, the measure includes 100 percent observer coverage, encounter protocol and move-on rule. Moreover, the minimum level of spatial protection applies to 0.1% of the Convention Area, the remainder of the Convention Area is closed to bottom fishing. One Member expressed strong concern about using un-tested modelling as a justification for such significant reductions to fishing grounds. While most Members were satisfied that the proposal was consistent with the General Assembly Resolutions, the 1995 UN Fish Stocks Agreement, FAO guidelines, UNCLOS and the SPRFMO Convention, one Member considered that the proposal was not consistent with the commitment to prevent significant adverse impacts on VMEs.
98. The Commission accepted the IWG's recommendations and adopted the proposal establishing 70% minimum level of protection. The Commission noted the extensive programme of work outlined in the SC workplan to address the range of data needs and scientific work to support the sustainable management of bottom fishing.
99. **The Commission adopted the amendment to CMM 03-2022 (COMM11-Prop08_rev4, Annex 7b).**
100. DSCC and ECO NZ expressed their concern with the amendments and expressed that the level of protection should have been higher and questioned whether the CMM are fulfilling the obligations of other international resolutions. (Annex 9c).
101. HSWG objected to the adoption of the measure expressing that it is detrimental to the fishing industry and effectively ends fishing opportunities on the high seas. (Annex 9d).



c3. CMM 06-2020 Vessel Monitoring System (SEC)

102. The Secretariat introduced its proposal (COMM11-Prop01_rev2) to amend CMM 06 (VMS). This proposal seeks to update the wording in the CMM to reflect the VMS has been established, standardise the reporting timeframes, clarify the roles of Members in activating manual reporting protocols and adjust the CMM review date.
103. **The Commission adopted the amendment to CMM 06-2020 (Annex 7e).**

c6. CMM 12-2020 Transshipment (SEC)

104. The Secretariat introduced their proposal (COMM11-Prop06_rev1) to amend CMM 12 (Transshipment). The Secretariat's proposal sought to improve data exchange and processing by improving the data submission guidelines and associated data exchange, and adjusting Annex 1 and 3 accordingly to update the templates.
105. **These amendments were incorporated into the proposal on transshipment from Ecuador, which was adopted (COMM11-Prop10_rev5, Annex 7h).**

c4. CMM 07-2022 Port Inspection (SEC)

c5. CMM 10-2022 Compliance Monitoring Scheme (SEC)

c7. CMM 13-2021 Exploratory Fisheries (SEC)

106. The main amendment included in these three proposals was an update of their review date. The Commission noted that the review dates were often being extended without any consideration whether the CMM would benefit from other amendments and modifications to improve implementation. The European Union, the United States and the Cook Islands presented a proposal to improve CMM 13 as regards to definition of exploratory fisheries, in line with the recommendations of the CTC. There was a discussion, but it was not possible to resolve the concerns raised by one Member within the time available (COMM11-WP13).
107. **The Commission tasked the Secretariat to present a paper at COMM12 with recommendations for a more strategic approach be taken to reviewing the CMMs and that consideration be given to identifying those CMMs for review based some type of prioritisation.**

7. 2nd SPRFMO Performance Review

108. The Secretariat presented proposal COMM11-Prop19 concerning the timing of the 2nd SPRFMO Performance Review.
109. The European Union indicated that regular performance reviews are necessary to assess how the organisation is performing and where we can improve. They suggested that it may be best to focus on key areas for the next review rather than a broad review. This would help define the workload and the budget impacts.
110. The United States supported a more focused review and noted that a full review is a significant amount of work. They suggested a full review every 10 years, with focused reviews in between. They also noted the importance to have a well-balanced review panel reflective of the Membership.
111. **The Commission tasked the Secretariat to bring forward a proposal to COMM12 consistent with the above suggestions.**

8. 10th Anniversary of SPRFMO

112. Following an commemorative statement from the Secretariat and interventions from many Members, the Commission recalled the significant achievements that the organisation has made during the past 10 years, the commitment of SPRFMO to sustainability, the good progress and growth since the organisation was created - which soon will comprise 17 Members and 2 CNCs - the work done by the SC and the willingness of the Members to act on that advice, the ability of SPRFMO to take hard decisions and the importance of Convention



9. Cooperation Priorities

a. Report on Arrangements and MOUs

113. The Secretariat presented the Report on Arrangements and MOUs (COMM11-Doc08) updating the seven arrangements and/or MOUs SPRFMO has in place as well as the three separate agreements to promote cooperation and the effective functioning of the Secretariat.
114. With respect to existing MOUs, the Executive Secretary drew attention to the MOUs with WCPFC and Red LAC de Pesca INDNR which require renewal.
115. Additionally, the proposed MOU with the NPFC has not yet been signed and will be raised at the NPFC annual meeting in March 2023.
116. **The Commission supported the renewal of the MOUs with WCPFC and Red LAC de Pesca INDNR and continuation of the proposed MOU process with NPFC.**

b. External cooperation engagements

117. The Secretariat provided a summary of the external projects and cooperation engagements as outlined in COMM11-Doc08.
118. The Executive Secretary for the Agreement on the Conservation of Albatrosses and Petrels (Dr Christine Bogle, ACAP) presented COMM11-Obs04 noting that ACAP has a MOU with SPRFMO which aims to facilitate cooperation and information-sharing, especially in relation to seabird bycatch mitigation and ACAP is committed to keeping SPRFMO up to date with the best practice advice. Their observer paper describes the most recent updates of ACAP advice relevant to pelagic and demersal longline and trawl fisheries. It also mentions newly endorsed guidelines on data collection for observers and on electronic monitoring systems. ACAP noted the usefulness for SPRFMO to consider revisions to CMMs 09-2017 and 02-2022 against best practice.
119. New Zealand thanked ACAP for their presentation and noted their suggestions with respect to the SPRFMO CMMs. New Zealand indicated that they would undertake a review in the coming months and welcomed the participation of ACAP and any Members who wished to participate.
120. A representative from the Common Oceans project presented COMM11-Obs08 which provided an update on the development of the UNEP-GEF Project on Building and Enhancing Sectoral and Cross-Sectoral Capacity to Support Sustainable Resource Use and Biodiversity Conservation in Marine Areas Beyond National Jurisdiction (Cross-sectoral Project) and sought the collaboration of SPRFMO in the conduct of this project. No financial contribution in cash or in kind is being requested and most workshops are virtual.
121. The Executive Secretary indicated that the Secretariat has limited capacity to engage significantly in any new projects however it may be able to participate in the project in modest engagement.
122. Chile suggested to consider in the future options for individual Members of SPRFMO to cooperate with other organisations on behalf of SPRFMO and report back to the Commission.
123. **The Commission agreed to support the involvement of the Secretariat in the project (COMM11-Obs08) but noted its limited ability to engage.**

10. Other Matters

124. The current Chairperson of the Commission, Mr Luis Molledo, completed his term and did not seek a second term. The Members thanked him for his efficient and effective chairmanship over the past few years.
125. The current vice chair of the Commission, Mr Michael Brakke, was unable to seek a second term due to changing positions with the United States government. Members thanked him for his hard work as the vice chair of the Commission. Ms Alexa Cole (United States) accepted the role of vice chair of the Commission.



126. The Commission recognised the challenges confirming a Chairperson at COMM11 but noted that it would be possible to find a Chairperson within the intersessional period. The Chairperson, Mr Luis Molledo, agreed to remain in the position until 1 July 2023 at the latest, exceptionally, and urged Members to work together to find a Chairperson as soon as possible. The Commission thanked Mr Molledo for his willingness to assist in this regard.
127. **The Commission agreed to appoint a new Chairperson through intersessional decision.**
128. The current Chairperson of the FAC, Mr Jimmy Villavicencio (Ecuador), accepted a second term as the Chair of FAC.
129. Ms Rebeca Espinoza (Ecuador) was nominated and accepted the position of Vice-Chair of the CTC.

11. Other Matters

130. Ecuador requested the Commission to consider establishing a working group on labour standards as per their letter circulated in December 2022 (G183-2022). They noted that other RFMO's (e.g., ICCAT and WCPFC) have already established such working groups. The national coordinator from the International Labour Organization's fishing industry project addressed SPRFMO (Annex 9i) noting the importance and benefits of labour standards in the fishing industry.
131. The Commission noted the importance of labour standards and supported the concept of creating a working group on labour standards in SPRFMO but noted that the Terms of Reference to guide the working group have not yet been developed.
132. **The Commission invited Ecuador to submit a proposal, including the draft terms of reference, to COMM12 for its consideration.**

12. Arrangements for Future Meetings

133. Ecuador offered to host the Commission meeting (COMM12) in Manta, Ecuador from 23 January to 2 February 2024, under a funding support arrangement (as outlined in the budget).
134. The Commission expressed its appreciation to Ecuador and encouraged Members and CNCPs to consider hosting future meetings.
135. Panama will host the 2023 SC meeting (SC11) from 07 to 16 September 2023.

13. Adoption of the Commission Report

136. **The Commission adopted its meeting report on 17 February 2023 at 21:16 Ecuador Time (ECT).**

14. Close of the Meeting

137. The 11th Commission Meeting was closed on 17 February 2023 at 21:21 at Manta, Ecuador.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Doc 01 rev1

(rev1 - 26 Jan 2023)

COMM11 Meeting Agenda

Secretariat

1. OPENING OF THE MEETING
 - a. Meeting arrangements
 - b. Adoption of the Agenda
 - c. Meeting documents
2. MEMBERSHIP
 - a. Status of the Convention
3. SCIENTIFIC COMMITTEE (SC)
 - a. Report of the SC 10
 - b. 2023 SC Workplan
4. FINANCE AND ADMINISTRATION COMMITTEE (FAC)
 - a. Report of the FAC 10
 - b. Budget
5. COMPLIANCE AND TECHNICAL COMMITTEE (CTC)
 - a. Report of the CTC 10
 - b. Final Compliance Report
 - c. 2023 IUU Vessel List
 - d. Status of Cooperating non-Contracting Parties
6. CONSERVATION AND MANAGEMENT MEASURES (CMMs)
 - a. Proposals to amend current CMMs ~~will be added as necessary~~
 - a1. CMM 03a Deepwater species (NZ)
 - a2. CMM 11 Boarding and Inspection (US)
 - a3. CMM 12 Transshipment (EC)
 - a4. CMM 14b Exploratory Potting Fishery (CK)
 - a5. CMM 14e Exploratory Toothfish Fishery (EU)
 - a6. CMM 16 Observer Programme (PE)
 - a7. CMM 18 Squid (EC)
 - a8. CMM 18 Squid (EU)
 - a9. CMM 18 Squid (US)
 - a10. CMM 18 Squid (CN)
 - a11. CMM 18 Squid (KR)
 - a12. CMM 05 Record of Vessels (SEC)
 - a13. CMM 08 on Gillnets (SEC)
 - b. Proposals for new CMMs ~~will be added as necessary~~
 - b1. Proposed decision on Climate Change (US)
 - c. CMMs for review in 2022:
 - c1. CMM 01-2022 *Trachurus murphyi* (KR)
 - c2. CMM 03-2022 Bottom Fishing (CK)
 - c3. CMM 06-2022 Vessel Monitoring System (SEC)
 - c4. CMM 07-2022 Port Inspection (SEC)
 - c5. CMM 10-2022 Compliance Monitoring Scheme (SEC)
 - c6. CMM 12-2020 Transshipment (SEC)
 - c7. CMM 13-2021 Exploratory Fisheries (SEC)



7. 2nd SPRFMO PERFORMANCE REVIEW
 - a. Preparations required for the upcoming review
8. 10TH ANNIVERSARY OF SPRFMO
9. COOPERATION PRIORITIES
 - a. Report on Arrangements and MoUs
 - b. External cooperation engagements
10. OFFICE HOLDERS
11. OTHER MATTERS
12. ARRANGEMENTS FOR FUTURE MEETINGS
13. ADOPTION OF THE COMMISSION REPORT
14. CLOSE OF MEETING



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 2

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11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 3

COMM11 Meeting Schedule

(COMM 11 – Doc04_rev4)

Commission	Pre-Sessions	Session 1 09:00 – 10:30	Session 2 11:00 – 12:30	Session 3 13:30 – 15:30	Session 4 16:00 – 18:00	Post-Sessions
Monday 13 Feb 2023	08:00 am <i>A pre-COMM HoD meeting will be held</i>	<ul style="list-style-type: none"> Opening ceremony Agenda Administration Convention status SC report/workplan 	<ul style="list-style-type: none"> SC report discussions SC workplan (open) CTC report (part) CTC - CNCPs CTC - Proposal updates Adoption of proposals 	<ul style="list-style-type: none"> Proposals 	<ul style="list-style-type: none"> Working Group: Jack mackerel 	<i>Welcome cocktail for meeting participants. Venue: Hotel Poseidon Time: 19:30hrs</i>
Tuesday 14 Feb 2023	08:00 – 09:30 FAC to meet in Breakout room	(Beginning 9:45) Working Group: Squid	<ul style="list-style-type: none"> Working Group planning (Other proposals) 	<ul style="list-style-type: none"> CTC - IUU Vessel List CTC- CMS final report Adoption of final CMS/IUU 	<ul style="list-style-type: none"> Proposals (discussion) Working Group: jack mackerel (to conclude at 5:45) 	FAC to reconvene at 6pm until 6:45pm side event 18:30hrs
Wednesday 15 Feb 2023		<ul style="list-style-type: none"> Working Group: Squid 	<ul style="list-style-type: none"> Working Group: Jack mackerel 	<ul style="list-style-type: none"> CTC open items Proposals (adoption) 	<ul style="list-style-type: none"> FAC Report adoption 	<i>Dinner for Heads of Delegations</i>
Thursday 16 Feb 2023		<ul style="list-style-type: none"> SPRFMO 10-year anniversary SPRFMO Performance review Proposals (adoption) Cooperation Officers Future meetings 	<ul style="list-style-type: none"> SC workplan adoption FAC report presentation. Discussion of Budget/ Contributions Proposals 	<ul style="list-style-type: none"> Working Group: Squid Adoption of Budget (20 mins) 	<ul style="list-style-type: none"> Annual Mtg costs Working Group: Jack mackerel 	<ul style="list-style-type: none"> <i>If needed (18:30): Working Group: Jack mackerel</i>
Friday 17 Feb 2023		<ul style="list-style-type: none"> Other Business Proposals Budget/Contributions SC workplan Officers 	<ul style="list-style-type: none"> Open items 	<ul style="list-style-type: none"> COMM11 report prep/adoption 	<ul style="list-style-type: none"> COMM report adoption and meeting close 	

Coffee breaks will be 30 minutes long at 10:30 and 15:30 every meeting day; lunch will be 1-hour long every meeting day.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 4a

2023 Scientific Committee multi-annual workplan

(COMM 11 – WP17_rev1)

1. Introduction

Paragraph 42 of the 10th Scientific Committee Meeting Report notes that the SC developed the 2023 version of the multi-annual workplan during the meeting sessions. Within each session there was a sub-agenda item *Advice to the Commission* that served to allocate time to develop relevant workplan tasks for the coming years. Developing the workplan during the meeting sessions was an approach that proved productive and well received. This report summarizes results from those activities.

The following tables are meant to track priority tasks with timelines. The year noted is associated with the Scientific Committee meeting at which the work is expected to be reported back on. In some cases, the work is expected to be repeated over several years, and this is indicated with a plus (+) sign. The column labelled “Coordinator” identifies the Member(s) (or in some cases the Secretariat or Chairperson) who has specifically been assigned to ensure that progress towards the task is made intersessionally. In some cases, no Member has been specifically identified and this is indicated with a blank. The funding required is identified, and funding sources (such as the SC Scientific Support Fund or a Member voluntary contribution) if this is known. A notation of “In-kind” signifies that the work will be conducted by Members and that no additional funding is expected to be required.

COMM11 adopted the following workplan



2. Jack Mackerel Working Group

Task	Subtask	Timeline	Coordinator	Funding
Jack mackerel assessment	Review available input data JM assessment	2023	US/EU	In-kind
	Finalize development of quality control diagnostics of the catch input data to the assessment	2023	EU	In-kind
	Continue to update and compare standardizations of commercial tuning indices among different fleets and the impacts of increased efficiency in the fleets	2023		In-kind
	SC and other funds to support experts during SC assessment	2023+	SC Chair/ Secretariat	NZ\$10K (SC)
	Provide TAC advice according to Commission request (based on the updated assessment and MSE results)	2023		In-kind
	Evaluate the impact on stock status in the short and medium term of a range of quota percentage increases (0, 5, 10, 15, 20%) based on deterministic projections of the jjm model.	2023		
Jack mackerel MSE	MSE objectives and HCR measures workshop with stakeholders and managers [completed at Comm11]	2023	EU	NZ\$50K (EU)
	<u>Develop and carry out an MSE (see COMM8-Report Annex 8b). This shall include revising the operating model to be consistent with the assessment developed during the 2022 benchmark workshop. Initial management procedures (MPs) will be developed to accommodate some desired management settings (e.g., paragraphs 80, 102, 118 COMM8-Report; including carryover).</u>	2023+	EU	NZ\$90k (EU) NZ\$60k (EU)
Jack mackerel connectivity research	Task group on CJM connectivity to improve the understanding of origin and admixture of populations or subpopulations of jack mackerel in the Southern Pacific. Terms of reference as included in G137-2022.	2022-2026	Chile Peru EU	NZ\$15k (EU) Total NZ\$150K/ yr [TBD]
Jack mackerel ageing techniques	Task group on CJM ageing analysis and otolith exchange to addresses the current practices in ageing of jack mackerel, the validation techniques to verify ages and a comprehensive documentation of ageing techniques and protocols. Terms of reference as included in SC9.	2022-2024	Chile Peru EU	NZ\$ 15k (EU) Total NZ\$75K/ year



3. Deepwater Working Group

Deepwater working group Task	Subtask	Timeline	Coord.	Funding
Orange roughy assessment	<ul style="list-style-type: none"> Explore alternative stock assessment models Estimate stock status Provide advice on sustainable catch levels 	2025	NZ	In-kind
	Evaluate the orange roughy population and wider ecosystem impacts of carrying forward of TACs over multiple years	2023	NZ	In-kind
Orange roughy assessment data	Coordinate and design acoustic surveys for relevant stocks (<i>intersessional consideration</i>)	2023+	NZ	In-kind
Deep water stock structure	Review the list for deepwater stock structure analyses based on assessment for non-orange roughy stocks	2025		In-kind
	Develop workplan to drive stock structure delineation studies for orange roughy and alfonsino and other key target species	2023+		In-kind
Other stock assessments, & ecological risk assessment	Review the risk assessment of teleost and elasmobranch species considering new available information and methods	2024	AU	NZ\$35k (AU) In-kind
	Develop a tier-based assessment framework for all DW stocks and recommend relevant reference points and/or management rules for these stocks	2023+		In-kind
VME Encounters and benthic bycatch	Develop VME taxa ID guide for benthic bycatch, following the steps proposed in SC9-DW12, and associated training videos	2023+	NZ	In-kind
	Investigate the relationship between benthic bycatch from fishing vessels (including encounter events) and the habitat suitability models	2023+		In-kind
	Investigate the relationship of benthic bycatch to abundance models of VME taxa	2023+		In-kind
	Development of a process to review all recent and historical benthic bycatch data to determine the ongoing effectiveness of the spatial management measures.	2023+		In-kind
	Assess the feasibility and develop a research programme within the SPRFMO Convention Area to allow the determination of taxon-specific estimates of catchability for VME indicator taxa. (<i>The total cost for such a programme will need to be determined. The two amounts indicated will be used to commence the programme</i>).	2023+	NZ	NZ\$58K (AUS) NZ\$23.6K (SC)
CMM 03 request regarding Encounters with VMEs	Developing a multi-spatial scale risk-based approach to assess encounters with VME indicator taxa	2023	NZ	
	Develop an encounter review standard	2024	NZ	
	Review all reported VME encounters	2023+		In-kind
CMM 03 request regarding ongoing appropriateness	Review all available data and provide advice on the ongoing appropriateness of the management measures to ensure the CMM continues to achieve its objective and the objectives of the Convention	2023+		In-kind



Deepwater working group Task	Subtask	Timeline	Coord.	Funding
Bottom Fishery Impact Assessment	Alternative: [Explore thresholds for “significant” adverse impact (SAI) for VMEs at different spatial scales, and understanding knowledge gaps and uncertainties] Original: Exploring how to define the thresholds between good state and SAI for VMEs at different spatial scales, and understanding knowledge gaps and uncertainties	2023	NZ	NZ\$74K (EU)
	The Scientific Committee shall review, and update if required, the SPRFMO BFIAS every 5 years, to ensure that it reflects, as appropriate, best practice	2025		In kind
	Develop abundance models for VME taxa	2023+	NZ	NZ\$15K (EU)
	Work to reduce uncertainties in risk assessments for benthic habitats and VMEs by exploring: <ul style="list-style-type: none"> the overlap between the spatial distribution of bottom trawling fishing impact (i.e., the ‘naturalness layer’) and abundance estimates of VME indicator taxa [potentially at multiple spatial scales] assessing the effectiveness of the Spatial Management Areas (i.e., “post accounting”) using abundance estimates of VME indicator taxa 	2023+		In kind
	Complete cumulative BFIA including any changes to the Management Area boundaries that are proposed by CMM03 intersessional working group and seek to reduce uncertainties where possible.	2023		
CMM 03 request regarding Marine mammals, seabirds, reptiles and other species of concern.	The Scientific Committee shall provide advice biennially to the Commission on: <ul style="list-style-type: none"> Direct and indirect interactions between bottom fishing and marine mammals, seabirds, reptiles and other species of concern; Any recommended spatial or temporal closures or spatially/temporally limited gear prohibitions for any identified hotspots of these species; and Any recommended bycatch limits and/or measures for an encounter protocol for any of these species. 	2024 2026 2026		In-kind



4. Squid Working Group

Task	Subtask	Timeline	Coordinator	Funding
Squid workshop	Squid Workshop including potential assessment techniques and appropriate measures of fishing effort (<i>prior to SC11</i>)	2023	SQWG Chair/ Secretariat	NZ\$10K (SC)
Squid assessment and CMM development	Develop a plan for more detailed within-season fishery Monitoring depending upon the uptake of EM, etc.	2024	SQ WG	In-kind
	Develop and present alternative assessment approaches	2023+	SQ WG	In-kind
	Design and evaluate MSE and harvest control rules	2026+	SQ WG	In-kind
Standardise biological sampling	Identify where protocols differ, e.g., type of sampling, areas and timing of sampling, ageing	2023	Peru, Chile	In kind
Observer Coverage	Review minimum observer coverage (including in relation to different fleet segments, CMM 18 2020) Provide advice on the appropriate level of observer coverage in the jumbo flying squid fishery	2025 3		In kind
Squid assessment data	Record and analyse diet data	2023+		In-kind
	Revise data template to sufficient detail and create scripts to allow current assessment methods to be used and also future higher resolution approaches (e.g., depletion estimator by phenotype)	2023		In-kind
	Develop a task group to coordinate data and templates needed for assessment models with a goal that they will account for phenotypic spatial patterns	2023-24	SQ WG	In-kind
Squid connectivity	Collect and analyse genetic samplings (Convention area and adjacent National Jurisdiction Areas)	2023		NZ\$47K (China)
	Sample exchange where Members choose to do so	2023+		In-kind
	Register DNA sequences in public DNA databases (such as GenBank), considering a list of metadata related to samples analysed (using the template in the SC9-Report).	2023		In-kind
	Description of genetic diversity based on mtDNA markers, integrating data from all members	2023		In-kind
	Reaching an updated agreement on consistent approaches to genetic analyses for jumbo flying squid	2023+		In-kind
	Use modelling and observation data to predict connectivity and seasonal to decadal variability possibly using genetic, microchemistry, morphometric, parasite prevalence, and tagging experiments	2023+		In-kind



5. Habitat Monitoring Working Group

Task	Objective	Timeline	Coordinator	Funding
Evaluate the applicability of data collected from fishing vessels targeting pelagic species	Mapping spatial-temporal population density distribution of jack mackerel using a combination of the existing acoustic survey data and acoustic information as obtained from industry vessels	Permanent	Peru/Chile	In-kind
	Subgroup of specialists to evaluate advantages and biases of analysis methods - <i>Workshop to be virtually conducted</i>	2023	Peru/Chile	In-kind
	Subgroup of specialists to organise classification of fishing fleets and develop an inventory of technologies available aboard fishing vessels in order to identify the potential to collect data using the technologies currently being deployed- <i>Workshop to be virtually conducted</i>	2023	Peru/Chile	In-kind
Further developments of standardised oceanographic data products and modelling	Characterise jack mackerel habitat (e.g., past studies done in Peru and Chile)	2023	Peru/Chile	In-kind
	Provide ecosystem status overview for SC at seasonal to decadal scale	2024	Peru/Chile	In-kind
	Explore the concept of jack mackerel habitat under an interdisciplinary ontogeny approach for jack mackerel and other species (by life history stages and regions) <i>Workshop to be virtually conducted</i>	2023+	Peru/Chile	In-kind
	Define a list of existing environmental data: satellite, acoustic surveys, acoustic fisheries surveys, fishing data, fishing vessel data (VMS, Observers) in time and space that already exist inside the SPRFMO area	2023+	Peru/Chile	In-kind
	Integration of databases provided by different members of the HMWG and other working groups of the SC with linkage to a metadata repository	2023+	Peru/Chile	In-kind
	Develop an inventory of research programmes currently being developed by industry and scientific institutions regarding data collection and monitoring of marine habitats	2023+	Peru/Chile	In-kind
Species behaviour and preferences	Analyse the habitat preferences of jumbo squid and jack mackerel, noting the useful data and analyses provided by Peru and Chile	2024	Peru/Chile	In-kind
	Habitat suitability modelling of jack mackerel	2023	Peru/Chile	In-kind
	Incorporate behaviour, distribution, and abundance information about mesopelagic, euphausiids and other key species of the Humboldt Current System	2023	Peru/Chile	In-kind
Use of new Tools	Develop new approaches based on different tools such as GAM, GLM, INLA, ROMS, Biogeochemical, Geostatistics, big data and machine learning (e.g., for acoustic classification of targets) and utilization of different platforms (Scientific surveys, fishing vessels, satellite oceanography, gliders, buoys, AUV)	Permanent	Peru/Chile	In-kind
Symposium	Symposium on Habitat Monitoring organised after the 2023 meeting of the Commission to review the state of the art of habitat research in order to recommend specific lines of investigation in this topic within the framework of the SPRFMO	2023	Symposium Steering Committee	NZ\$63k (SC) (US\$25k) USA



6. Other (Crosscutting issues)

Task	Subtask	Timeline	Coord.	Funding
Observer programme	Advise on the appropriate levels of observer coverage for each of the major fisheries to: <ul style="list-style-type: none"> Identify bycatch issues related to seabirds and other species of concern (short and medium term) Provide statistically robust quantitative estimates for all species of seabird combined and some of the more common bycatch species (medium term) Periodically review the appropriate levels of observer coverage for SPRFMO fisheries in support of stock assessment needs. 	2023+		In-kind
Seabird/bycatch monitoring	Progress southern hemisphere quantitative risk assessment (SEFRA)	2023+		In-kind
Seabird bycatch mitigation	Review seabird bycatch mitigation measures in CMM 09-2017, and the seabird related data collection requirements in CMM 02-2022	2023+		In-kind
EBSA	Evaluate impacts of fishing activities	2023+		In-kind
CMM 17 Marine pollution	SC Members and CNCPs are encouraged to undertake research into marine pollution related to fisheries in the SPRFMO Convention Area to further develop and refine measures to reduce marine pollution and are encouraged to submit to the SC and the CTC any information derived from such efforts	2023+		In-kind
Climate change	Identify management implications of climate change on habitat and fisheries in the SPRFMO area (Decision CMM XX [tbd])	2023+	USA	In-kind
CMM 02-2020 Data Standards	Review and update data standards to ensure appropriate scientific data are collected in SPRFMO fisheries (Paragraph 8 of CMM 02-2020)	2023+		In-kind
FAO ABNJ Deep Sea Fisheries	Coordinate activities over their next five-year plan that could involve member scientists and a number of SPRFMO science projects	2023+	Secretariat	In-kind
Alignment	Work involving the alignment of Deepwater and Habitat Monitoring workstreams	2023+		In-kind
Species synopses	To update long version profiles (FAO species synopsis format) for jack mackerel, chub mackerel and jumbo flying squid	2023+		
Research in the Nazca and Salas y Gomez ridges area	Research cruises aimed to know the bio-oceanographic and meteorologic characteristics of Salas y Gomez ridge; as well as biodiversity, current circulation, morphology and geology of sea bottom.	2023-2024	Chile	In-kind
	Climate change impacts of fisheries in Salas y Gomez and Nazca ridges	2023	Chile	In-kind
	Expedition to Salas y Gomez and Nazca aboard oceanographic research vessel	2023-2025 (TBD)	Chile	In-kind
Data Working group	Create terms of reference and prioritization for data needs of Members (SC10 report).	2023+		In-kind
CPPS joint work plan	Increase cooperation and collaboration between both organisations as envisioned under the existing MoU (SC10 report)	2023+	Secretariat	In-kind
Secretariat scientific support	Continue with analyses of catch composition and fishing activities; support CPUE analyses; and general scientific analyses, as capacity allows.	2023+	Secretariat	In-kind
Assessment and monitoring	Development of assessments for species in the SPRFMO Convention Area that are bycaught or subject to targeted fishing operations (in line with tier-based assessment approach)	2023+		In-kind
	Update the evaluation of patterns in species catch composition from fisheries targeting jack mackerel; redbait and/or alfonsino in FAO Statistical Area 87 from within the SPRFMO Area including an	2023+		In-kind



Task	Subtask	Timeline	Coord.	Funding
	<u>evaluation of Russian Federation-flagged vessel(s) for the years 2007 - 2022; using set level information assess operation characteristics using catch location, gear, fishing depth, proximity to seabed, species composition and catch in relation to prior sets. Evaluate these characteristics relative to those where jack mackerel target fishery.</u>			
Redbait research	Characterize the fishing activity and develop an assessment as needed in order to ensure <u>future</u> exploitation of such species is consistent with the precautionary approach	2023 \pm	Russian Federation	In kind



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 5a

SPRFMO Budget for Financial Year 2023-24

(COMM 11 – WP09_rev7)

South Pacific Regional Fisheries Management Organisation Budget for Financial Year 2023-24 and Forecast Budget for Financial Year 2024-25 (New Zealand Dollars)					
Main Budget Categories	Budget Items	COMM10		COMM11	
		Adopted Budget 2022-23	Forecast 2023-24	Adopted Budget 2023-24	Forecast Budget 2024-25
1. Personnel Cost					
1.1	Salaries				
	Professional Category (PC)				
	Executive Secretary (P5)	241 150	245 067	264 518	271 126
	Data Manager (P3)	184 989	188 868	208 502	214 407
	Compliance Manager (P3)	202 764	206 584	221 488	228 825
	Communication and Co-ordination Officer (P1)	150 646	151 199	161 997	162 864
	General Services Category (GSC)				
	Finance and Office Manager	87 059	92 429	92 450	98 800
	Total Staff Salary Cost	866 608	884 147	948 955	976 022
1.2	Insurance				
	Health Insurance (3 PC)	30 000	32 000	30 000	31 500
	Life Insurance	6 000	6 000	6 000	6 500
	ACC (1 PC and 1 GSC)	1 000	1 000	1 000	1 000
	Total Insurance Cost	37 000	39 000	37 000	39 000
1.3	Home Leave	10 000	20 000	10 000	22 000
1.4	Staff Training & Other Professional Development	20 000	20 000	20 000	20 000
	Subtotal Personnel Cost	933 608	963 147	1 015 955	1 057 022
2. Premises and Equipment					
2.1	Premises				
	Office Rent (includes common area charges)	62 000	64 000	64 000	66 000
	Insurances	3 000	3 300	3 300	3 500
	Power	5 000	5 400	5 400	5 600
	Cleaning	3 500	3 500	3 500	3 500
	Total Premises Cost	73 500	76 200	76 200	78 600
2.2	IT/Computer Hardware/Equipment	15 000	15 000	15 000	18 000
2.3	Office Equipment and Supplies	3 000	3 000	3 000	3 000
	Subtotal Premises and Equipment	91 500	94 200	94 200	99 600
3. Meetings and Travel					
3.1	CTC and Annual Commission Meeting	78 000	80 000	60 000	85 000
3.2	Scientific Committee Meeting	22 300	30 000	30 000	32 000
3.3	Other Meetings and Travel	34 700	25 000	35 000	39 000
3.4	Cost Associated with Hosting a Meeting	6 000	6 000	6 000	7 000
	Subtotal Meetings and Travel	141 000	141 000	131 000	163 000
4. Information and Communication					
4.1	Telephone and Internet	9 000	9 000	3 000	3 500
4.2	Computer Expenses and IT Support	53 529	56 245	35 000	40 000
4.3	Website Expenses	5 000	5 000	10 000	12 000
4.4	Database Regular Costs	26 000	26 000	35 000	35 000
4.5	Database Development	0 000	35 000	130 000	35 000
	Subtotal Information and Communication	93 529	131 245	213 000	125 500
5. Operational Expenses					
5.1	Auditors	9 000	10 000	10 000	12 000
5.2	Stationeries, Printing and Publications	4 000	4 000	4 000	4 000
5.3	Bank and Post Services	5 000	5 000	5 000	5 000



	5.4	Hospitality	3 000	3 000	3 000	3 000
	5.5	Other General Expenses	10 000	10 000	10 000	10 000
		Subtotal Operational Expenses	31 000	32 000	32 000	34 000
6. SPRFMO VMS						
	6.1	Contingency for unanticipated service charges	10 000	8 000	8 000	10 700
	6.2	Annual Fee for VMS contracted services	100 000	104 000	104 000	107 000
		Subtotal VMS	110 000	112 000	112 000	117 700
7. Non - Routine Expenses						
	7.1	SPRFMO Observer Programme Accreditation Provider	80 000	40 000	52 000	52 000
	7.2	Rebuilding the Contingency Fund	30 000	30 000	30 000	30 000
	7.3	SPRFMO 10-year anniversary campaign	20 000	0	0	0
	7.4	Performance Review	0	30 000	0	30 000
	7.5	Hosting the 2024 Annual meeting (in Ecuador)			161 816	0
		Subtotal Non - Routine Expenses	130 000	100 000	243 816	112 000
Subtotal			1 530 637	1 573 592	1 841 971	1 708 822
8. Scientific Support		(see FR2 Para 4)	0	20 000	10 000	20 000
9. Developing States		(see FR2 Para 4)	35 000	35 000	35 000	35 000
Grand Total			1 565 637	1 628 592	1 886 971	1 763 822
Voluntary Contributions affecting the budget			80 000	0	52 000	39 000
Net Total			1 485 637	1 628 592	1 834 971	1 724 822



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 5b

Schedule of Member Contribution for Financial Year 2023-24

(COMM 11 – WP22_rev2)

Members	Membership (NZ\$)
Australia	87 913
Chile	135 367
China	401 047
Cook Islands	45 416
Cuba	14 003
Ecuador	11 722
European Union	164 429
Faroe Islands	52 380
Korea	59 009
New Zealand	198 379
Panama	35 470
Peru	36 844
Russian Federation	71 592
Chinese Taipei	50 652
United States of America	130 484
Vanuatu	50 659
<i>Other sources</i>	<i>311 908</i>
Total	1 857 273



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 6a SPRFMO 2023 Final Compliance Report

(COMM 11 – WP23)

Reporting period to which this report refers: 2021/22 (1 October 2021 – 30 September 2022)

Date Report Prepared: 16 February 2023

SPRFMO Conservation and Management Measures (CMMs) which have been considered include:

CMM		Table
CMM 01-2021	(<i>Trachurus murphyi</i>)	Table 1
CMM 02-2021	(Data Standards)	Table 2
CMM 03-2021	(Bottom Fishing)	Table 3
CMM 03a-2021	(Deepwater species)	Table 4
CMM 04-2020	(IUU Vessel List)	Table 5
CMM 05-2021	(Record of Vessels)	Table 6
CMM 06-2020	(Commission VMS)	Table 7a, 7b
CMM 07-2021	(Port Inspection)	Table 8
CMM 08-2019	(Gillnetting)	Table 9
CMM 09-2017	(Seabirds)	Table 10
CMM 10-2020	(Compliance Monitoring Scheme)	Tables 11a, 11b &
CMM 11-2015	(Boarding and Inspection)	Table 12
CMM 12-2020	(Transshipment)	Table 13
CMM 13-2021	(Exploratory Fisheries)	Table 14
CMM 14a-2019	(Exploratory Toothfish NZ)	Table 15
CMM 14b-2021	(Exploratory Potting CK)	Table 16
CMM 14d-2020	(Exploratory Toothfish CL)	Table 17
CMM 14e-2021	(Exploratory Toothfish EU)	Table 18
CMM 15-2016	(Stateless Vessels)	Table 19
CMM 16-2021	(Observer programme)	Table 20
CMM 17-2019	(Marine Pollution)	Table 21
CMM 18-2020	(Jumbo Flying Squid)	Table 22
CMM 19-2021	(Fishing Vessel Markings)	Table 23

All figures are preliminary, and assessments of possible compliance issues are made using the best information available at this time. Additional information which supplements this report can be found in the Members and CNCPs own Implementation reports ([publicly available](#) on the SPRFMO website following the meeting) and CTC 10 - Doc 09 Restricted (The Revised Draft Compliance Report on Members and CNCPs (2021/22)).

The following tables are arranged by CMM and identify any 2021/22 possible compliance issues along with the assigned 2021/22 Compliance Status from last year's [2022 Final Compliance Report](#) (including any identified non-compliance).

This report also includes two outstanding items pertaining to CMM06 (VMS) and CMM13 (Exploratory Fisheries) deferred from the 2021/22 Reporting Period to CTC10/COMM11 for review and assessment.

A 2021/22 Compliance Status has been adopted by the Commission. A "Compliant" status indicates that no potential compliance issues have been identified.



In accordance with [CMM10-2020](#) Paragraph 16 the Final Compliance Report shall include:

- a) a compliance status for each Member and CNCP with respect to the implementation of their obligations under the Convention and CMMs, and recommendations for any corrective action needed, based on compliance issues identified with respect to that Member or CNCP;
- b) suggestions for possible amendments or improvements to existing CMMs to address implementation or compliance difficulties experienced by Members and CNCPs;
- c) obstacles to implementation identified by Members and CNCPs including capacity building requirements;
- d) additional obligations that should be reviewed under the CMS;
- e) any other action the Commission shall deem appropriate to address non-compliance noted in the Final Compliance Report or to promote compliance with the Convention, CMMs and other obligations reviewed in the CMS.

The Final Compliance Report shall also contain an executive summary setting out any recommendations or observations from the Commission regarding the issues listed in paragraph 16 of this measure.



Table 1: Possible Compliance Issues for CMM 01-2021 (*Trachurus murphyi*)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 01-2021 (<i>Trachurus murphyi</i>)	2021/22 Compliance Status
Chile	Compliant	<p>Secretariat Assessment: Paragraph 13b</p> <p>There is a possible compliance issue under Paragraph 13b due to the Secretariat not receiving Chile’s 15-day catch report for the second half of August within 10 days of the end of the month. This resulted in an incomplete <i>Trachurus murphyi</i> catch report for August being circulated (G136-2022). The catch information was received on 14 September 2022. <i>(Note: the majority of reports (94.7%) were received on time).</i></p> <p>Comment by Member/CNCP:</p> <p>Because of a lack of administrative coordination, the report was sent four days late, but the measures have been undertaken by the institution in charge of the provision of such reports to avoid repeating late report in the future. Chile would like to request the CTC to consider the fact that out of 19 reports for the assessed period only one report was submitted late.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action



Table 2: Possible Compliance Issues for CMM 02-2021 (Data Standards)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 02-2021 (Data Standards)	2021/22 Compliance Status
Russian Federation	Non-Compliant, No Further Action <i>(Paragraph 1(a))</i>	<p>Secretariat Assessment: Paragraph 1a</p> <p>There is a potential compliance issue in respect to the timing of the submission of the Annual Catch Totals in accordance with the 30 September deadline established in Paragraph 1(a). The Russian Federation Annual Catch information was received on 22 November 2022.</p> <p>Comment by Member/CNCP:</p> <p>With respect to the paragraph 1 (a) of the Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data (CMM 02-2022) the Russian fisheries monitoring center and research institute of the fisheries industry are being sensitized to a potential compliance issue in respect to the 30 September deadline. The Russian Annual Catch Totals were provided as part of the annual report to the Scientific Committee. In this regards the Federal State Budgetary Institution “Centre of Fishery Monitoring and Communications” (CFMC) informed that since the Annual Catch Totals were provided as part of the annual report, no duplication is required as a separate document. The Federal Agency for Fisheries pointed out the need for training of responsible specialists in order to ensure the implementation of procedures for checking the timing of data submission. The Agency will continue to monitor the implementation of the requirements in the paragraph 1 (a) of the CMM 02-2022.</p> <p>CTC Consideration:</p>	Non-compliant; no further action
Belize	<i>Not Applicable (Prior to being CNCP)</i>	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a possible compliance issue under Paragraph 7 due to the Secretariat not receiving Belize’s Annual SC Report (or a NIL report) by the 27 August 2022 due date.</p> <p>Comment by Member/CNCP:</p> <p>Since our acceptance into the SPRFMO in February, Belize has been diligently reviewing the conservation and management measures to ensure compliance with these requirements. Due to an oversight, we failed to submit the required “nil report” to the SC on the due date. Belize shall ensure that this oversight does not occur in the future.</p> <p>CTC Consideration:</p>	Non-compliant; no further action



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 02-2021 (Data Standards)	2021/22 Compliance Status
Cook Islands	Compliant	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a potential compliance issue in relation to paragraph 7 with respect to the late submission of the annual SC report (received 5 days late).</p> <p>Comment by Member/CNCP:</p> <p>None received.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action
Cuba	Compliant	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a possible compliance issue under Paragraph 7 due to the Secretariat not receiving Cuba's Annual SC Report (or a NIL report) by the 27 August 2022 due date.</p> <p>Comment by Member/CNCP:</p> <p>None received.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action
Curacao	Compliant	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a possible compliance issue pursuant to paragraph 7 due to Curacao failing to submit its annual report to the SC prior to 27 August 2022 (Nil report was received 07 November 2022). Late submission.</p> <p>Comment by Member/CNCP:</p> <p>None received.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 02-2021 (Data Standards)	2021/22 Compliance Status
Ecuador	Compliant	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a potential compliance issue identified with respect to Paragraph 7 and a late submission of the annual SC report (received 6 days late).</p> <p>Comment by Member/CNCP:</p> <p>None received.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action
Faroe Islands	Compliant	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a potential compliance issue in relation to paragraph 7 with respect to the late submission of the annual SC report prior to 27 August 2022 (Nil report was received 12 September 2022).</p> <p>Comment by Member/CNCP:</p> <p>The Faroe Islands submitted their annual report to the Scientific Committee on 12 September 2022. This was done in form of a “nil report”. The report was submitted after deadline on 27 August 2022 and before the tenth meeting of the Scientific Committee of SPRFMO (SC10) taking place from 26-30 September 2022. The Faroe Islands intend to submit the annual report in due time in the future.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action
Liberia	Compliant	<p>Secretariat Assessment: Paragraph 7</p> <p>There is a possible compliance issue under Paragraph 7 due to the Secretariat not receiving Liberia’s Annual SC Report (or a NIL report) by the 27 August 2022 due date.</p> <p>Comment by Member/CNCP:</p> <p>There was no research or management activities carried out in the Convention Area. Liberia shall submit the ‘nil report’ in due course.</p> <p>CTC Consideration:</p> <p>Liberia provided a nil report to the Secretariat during the CTC 10 meeting. In their report Liberia confirmed that Liberia has not conducted fishing, research or management activities over the previous year in the SPRFMO Convention Area.</p>	Non-Compliant; No Further Action



Table 3: Possible Compliance Issues for CMM 03-2021 (Bottom Fishing)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 03-2021 (Bottom Fishing)	2021/22 Compliance Status
No possible compliance issues identified			

Table 4: Possible Compliance Issues for CMM 03a-2021 (Deepwater species)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 03a-2021 (Deepwater species)	2021/22 Compliance Status
New Zealand	Compliant	<p>Secretariat Assessment: Paragraph 26</p> <p>There is a potential compliance issue with respect to paragraph 26 in regard to NZ failing to provide notice 72 hours in advance of a vessel commencing fishing in the Tasman Sea (West Norfolk Ridge and Marion & 3 Kings areas) during October and November 2021. The vessel in question provided the advance notice to a specific email address indicated on their permit for sending SPRFMO notifications, but this mailbox was administered by NZ Ministry for Primary Industries (Ministries) and the message was not forwarded to the Secretariat in a timely manner (<i>noting that there have not been any further issues in calendar year 2022 since this issue was raised for clarification at the last CTC meeting</i>).</p> <p>Comment by Member/CNC:</p> <p>New Zealand acknowledges the compliance issues noted and advises that steps were taken to improve the compliance issues noted during the last CTC meeting. This includes discussions with vessel operators and additional wording added to the High Seas permits issued to New Zealand vessels fishing in the SPRFMO convention area. We note that there have been no further issues during 2022.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action



Table 5: Possible Compliance Issues for CMM 04-2020 (IUU Vessel List)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments- Possible Compliance Issues for CMM 04-2020 (IUU Vessel List)	2021/22 Compliance Status
No possible compliance issues identified			

Table 6: Possible Compliance Issues for CMM 05-2021 (Record of Vessels)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 05-2021 (Record of Vessels)	2021/22 Compliance Status
New Zealand	Compliant	<p>Secretariat Assessment: Paragraph 8 There is a potential compliance issue with respect to Paragraph 8 where NZ failed to advise within 3 days of the termination of an authorization for the vessel Southern Pride following the change of ownership. The vessel changed owner on 08 November 2021 and the Secretariat was advised on 07 December 2021.</p> <p>Comment by Member/CNCP: Due to an administration error, there was a delay in advising the Secretariat of the removal of the vessel from the authorised vessel list. New Zealand notes that the vessel did not fish in the SPRFMO Convention area after the change of ownership was completed.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action
Panama	Compliant	<p>Secretariat Assessment: Paragraph 8 There is a potential compliance issue identified in relation to paragraph 8 concerning the removal of the vessel YUN DER. The vessel renamed Orange Ice and reflagged in January 2022. The Secretariat was notified on 04 March 2022 by Panama to remove the authorization.</p> <p>Comment by Member/CNCP: There are two Authorities related to the management of the catching and fishing related activities merchant fleet in the Republic of Panama. The Panama Maritime Authority (PMA), in charge of flag registration and the Aquatic Resources Authority (ARAP) in charge of regulating fisheries and aquaculture, as well as authorizing vessels dedicated to these activities. PMA is in charge of providing ARAP the information of those vessels that have cancelled their flag registration, this creates a dependence for the notification to the RFMOs. Currently PMA and ARAP are working together to use a registry/IFL platform that can share and exchange information from both data bases with the purpose of comply in the 3 days established by the SPRFMO measure. Through PMA information, the YUN DER, IMO 9797917, was cancelled from our flag registry on January 28, 2022, due to internal processes before ARAP the vessel was completely de-linked at the end of February, finally Panama requested the withdrawal from the Organization's Authorized Vessel List</p>	Non-Compliant; No Further Action



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 05-2021 (Record of Vessels)	2021/22 Compliance Status
		<p>on March 4, 2022. ARAP and PMA have analysed this situation because they currently share a weekly report of this type of management, therefore incurring in this compliance issues where unfortunately the three days were not enough to comply, however with this new option of the platform exchange it is appreciated that the Organization can take into consideration the condition of Panama, and the corrective actions in process of implementation to obtain timely information for the submission before SPRFMO.</p> <p>CTC Consideration:</p>	
China	Non-compliant <i>(Paragraph 6)</i>	No possible compliance issues identified.	Compliant
Cook Islands	Non-Compliant <i>(Paragraph 8)</i>	No possible compliance issues identified.	Compliant
Curacao	Non-Compliant <i>(Paragraph 8)</i>	No possible compliance issues identified.	Compliant
European Union	Non-Compliant <i>(Paragraph 7)</i>	No possible compliance issues identified.	Compliant
Korea	Non-Compliant <i>(Paragraph 8)</i>	No possible compliance issues identified.	Compliant



Table 7a: Possible Compliance Issues for CMM 06-2020 (VMS) – (2021/22 Reporting Period)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 06-2020 (VMS) relating to the 2021/22 Reporting Period	Compliance Status for 2021/22 VMS Issues
Australia	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>Australian vessels operating in the SPRFMO Convention Area utilise simultaneous VMS reporting to both the Australian FMC and the Commission VMS. As such, the Australian FMC was continuously monitoring the vessel. The Australian FMC has provided all relevant VMS data the SPRFMO Secretariat and there are no gaps in reporting.</p> <p>CTC Consideration:</p> <p>The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant; No Further Action
China	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There are 37 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>China expresses our sincere appreciation for your hard work on the VMS issue as I knew that our staff had been keeping close contact with you on various VMS issues on almost a daily basis which means huge workload for you. Generally, your attached VMS summary contained the communications between you and our staff on various VMS issues as well as our reply, so we have no specific comment on the summary. But I wish to say that, we attached great importance to any VMS issues and try our utmost efforts to keep the VMS data being reported automatically and continuously to the Commission FMC, once we receive your email, we all immediately conducted internal check and then rectify the problems if any and reply to you the action we have taken, and all the files were closed with your kind assistance, truly thankful for your effort.</p> <p>CTC Consideration:</p> <p>23 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11);</p> <p>3 issues assigned Non-Compliant, No Further Action upon review by CTC;</p> <p>11 issues assigned Compliant status.</p>	Non-Compliant; No Further Action
Cook Islands	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There are 6 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p>	Non-Compliant; Further Action



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 06-2020 (VMS) relating to the 2021/22 Reporting Period	Compliance Status for 2021/22 VMS Issues
		<p>Comment by Member/CNCP: The Member feedback column has been completed for each VMS issue (in the VMS summary file). Based on the feedback It seems quite a few issues are with the service provider rather than the flag state (and wondering if these are handled separately). All the VMS issues have been resolved by forwarding the data for the gaps, all of which has occurred, not from VMS failure, but during the transfer of VMS data to Commission VMS. To resolve the issue, the Cook Islands has requested that CLS send VMS data directly to SPRFMO (as well as to the FFA).</p> <p>CTC Consideration: 3 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11); 2 issues assigned Non-Compliant, No Further Action upon review by CTC; 1 issue assigned Non-Compliant, Further Action (follow up with service provider to respect contract) upon review by CTC</p>	
Curacao	Deferred to CTC10	<p>Secretariat Assessment: There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP: It was informed by the service provider that usually for the vessels being added, CLS will fill out only the TID number in their system, it is not until the RC is added in their system that the (vessel name) issue was corrected. This created confusion for the SPRFMO Secretariat and the FMC. We will need to verify the information frequently with CLS and the SPRFMO Secretariat on VMS to prevent this.</p> <p>CTC Consideration: The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant, No Further Action
Curacao	Compliant	<p>Secretariat Assessment: Paragraphs 18/19 There is a possible compliance issue pursuant to paragraphs 18/19 due to Curacao failing to provide information in its Implementation report pertaining to the methods to prevent tampering or the security features of the ALCs.</p> <p>Comment by Member/CNCP: We will need learn more on this from the manufacture to prevent tampering. As we were informed by the provider, due to human error on values that needed to be filled in the VMS system raised questions on this matter on possible tampering. But indeed, we will need to know what to look for in case of possible tampering. If there are workshops or any other training organized by the</p>	Non-Compliant; Further Action (provision of missing information)



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 06-2020 (VMS) relating to the 2021/22 Reporting Period	Compliance Status for 2021/22 VMS Issues
		<p>Secretariat or the manufacture, Curacao is willing to participate.</p> <p>CTC Consideration:</p> <p>Curacao has committed to submit the missing information.</p>	
European Union	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There are 5 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>The details specific to these VMS disruptions is presented in the VMS issues summary. VMS data has been provided in all cases.</p> <p>CTC Consideration:</p> <p>5 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant, No Further Action
Liberia	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There are 2 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>The details specific to these VMS disruptions is presented in the VMS issues summary.</p> <p>CTC Consideration:</p> <p>1 issue assigned Compliant status.</p> <p>1 issue assigned Non-Compliant, Further Action (Provide VMS data to the Secretariat in a useable format) upon review by CTC</p>	Non-Compliant, Further Action
New Zealand	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>New Zealand has two potential compliance issues noted (1 during 2020/21 and 1 during 2021/22). In both cases the NZ FMC was continuously tracking the vessels separately via a secondary Iridium system (the Secretariat was updated).</p> <p>CTC Consideration:</p> <p>The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant, No Further Action



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 06-2020 (VMS) relating to the 2021/22 Reporting Period	Compliance Status for 2021/22 VMS Issues
Panama	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There are 21 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>Please refer to the VMS Issues Summary (excel document reviewed by CTC) in which Panama communicates to the Organization about the provision of data.</p> <p>CTC Consideration:</p> <p>6 issues deemed Priority Non-Compliant and requiring a written Compliance Action plan (it was noted that Panama has already commenced implementation of changes and improvements to enhance vessel monitoring)</p> <p>7 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11);</p> <p>2 issues assigned Non-Compliant, No Further Action upon review by CTC;</p> <p>1 issue assigned Non-Compliant, Further Action (provide missing VMS data in correct format) upon review by CTC</p> <p>5 issues assigned Compliant status.</p>	Priority Non-Compliant; Compliance Action Plan Required
Peru	Deferred to CTC10	<p>Secretariat Assessment:</p> <p>There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>The information on the vessels that were in the SPRFMO area has been successfully sent and uploaded to the Commission VMS. Although it is true, the data was loaded from June 2022, for technical reasons of our systems, which have already been exceeded, as reported at the time. After these dates, there were no vessels in the SPRFMO area.</p> <p>CTC Consideration:</p> <p>The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant; No Further Action
Russian Federation	Deferred to CTC10	<p>Secretariat Assessment:</p>	Non-Compliant; No Further Action



Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 06-2020 (VMS) relating to the 2021/22 Reporting Period	Compliance Status for 2021/22 VMS Issues
		<p>There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2021/22 Reporting period.</p> <p>Comment by Member/CNCP: Regarding the positional reports for the fishing vessel “Admiral Shabalin” for the 2020/21 and 2021/22 Reporting periods in accordance with the Conservation and Management Measure for the Establishment of the Vessel Monitoring System in the SPRFMO Convention Area (CMM 06-2020) we would like to underline that the technical problems were solved, and the missing VMS data was populated.</p> <p>CTC Consideration: The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	

Table 7b: Possible Compliance Issues for CMM 06-2020 (VMS) - (2020/21 Reporting Period)

Member/ CNC	2019/20 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM06-2020 (VMS) relating to the 2020/21 Reporting Period	Compliance Status for 2020/21 VMS Issues
Australia	Compliant	<p>Secretariat Assessment: There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP: Australian vessels operating in the SPRFMO Convention Area utilise simultaneous VMS reporting to both the Australian FMC and the Commission VMS. As such, the Australian FMC was continuously monitoring the vessel. The Australian FMC has provided all relevant VMS data the SPRFMO Secretariat and there are no gaps in reporting.</p> <p>CTC Consideration: The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant; No Further Action
Chile	Compliant	<p>Secretariat Assessment: There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP: Chile agrees on the approach regarding the decision to discuss in this year CMS the VMS issues forwarded to CTC10 by the Commission during last year’s meeting.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action



Member/ CNC	2019/20 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM06-2020 (VMS) relating to the 2020/21 Reporting Period	Compliance Status for 2020/21 VMS Issues
		The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)	
China	Compliant	<p>Secretariat Assessment:</p> <p>There are 17 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>China expresses our sincere appreciation for your hard work on the VMS issue as I knew that our staff had been keeping close contact with you on various VMS issues on almost a daily basis which means huge workload for you. Generally, your attached VMS summary contained the communications between you and our staff on various VMS issues as well as our reply, so we have no specific comment on the summary. But I wish to say that, we attached great importance to any VMS issues and try our utmost efforts to keep the VMS data being reported automatically and continuously to the Commission FMC, once we receive your email, we all immediately conducted internal check and then rectify the problems if any and reply to you the action we have taken, and all the files were closed with your kind assistance, truly thankful for your effort.</p> <p>CTC Consideration:</p> <p>13 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p> <p>4 issues assigned Compliant status.</p>	Non-Compliant; No Further Action
Cook Islands	Compliant	<p>Secretariat Assessment:</p> <p>There are 2 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>The Member feedback column has been completed for each VMS issue (in the VMS summary file). Based on the feedback It seems quite a few issues are with the service provider rather than the flag state (and wondering if these are handled separately). All the VMS issues have been resolved by forwarding the data for the gaps, all of which has occurred, not from VMS failure, but during the transfer of VMS data to Commission VMS. To resolve the issue, the Cook Islands has requested that CLS send VMS data directly to SPRFMO (as well as to the FFA).</p> <p>CTC Consideration:</p> <p>1 issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p> <p>1 issue assigned Compliant status.</p>	Non-Compliant; No Further Action
European Union	Compliant	<p>Secretariat Assessment:</p>	Non-Compliant; No Further Action



Member/ CNCP	2019/20 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM06-2020 (VMS) relating to the 2020/21 Reporting Period	Compliance Status for 2020/21 VMS Issues
		<p>There are 3 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP: The details specific to these VMS disruptions is presented in the VMS issues summary. VMS data has been provided in all cases.</p> <p>CTC Consideration: 3 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	
New Zealand	Compliant	<p>Secretariat Assessment: There is 1 possible compliance issue pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP: New Zealand has two potential compliance issues noted (1 during 2020/21 and 1 during 2021/22). In both cases the NZ FMC was continuously tracking the vessels separately via a secondary Iridium system (the Secretariat was updated).</p> <p>CTC Consideration: The issue assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant; No Further Action
Panama	Compliant	<p>Secretariat Assessment: There are 13 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP: Please refer to the VMS Issues Summary (excel document reviewed by CTC) in which Panama communicates to the Organization about the provision of data.</p> <p>CTC Consideration: 9 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11) 2 issues assigned Non-Compliant, No Further Action upon review by CTC; 2 issues assigned Non-Compliant, Further Action by the CTC (Provide VMS in useable format; Review arrangements with service provider)</p>	Non-Compliant. Further Action.



Member/ CNCP	2019/20 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM06-2020 (VMS) relating to the 2020/21 Reporting Period	Compliance Status for 2020/21 VMS Issues
Russian Federation	Compliant	<p>Secretariat Assessment:</p> <p>There are 5 possible compliance issues pertaining to VMS reporting requirements pertaining to the 2020/21 Reporting period.</p> <p>Comment by Member/CNCP:</p> <p>Regarding the positional reports for the fishing vessel “Admiral Shabalin” for the 2020/21 and 2021/22 Reporting periods in accordance with the Conservation and Management Measure for the Establishment of the Vessel Monitoring System in the SPRFMO Convention Area (CMM 06-2020) we would like to underline that the technical problems were solved, and the missing VMS data was populated.</p> <p>CTC Consideration:</p> <p>5 issues assigned “non-compliant” and “no further action” (re: CMM 10-2020 para 11)</p>	Non-Compliant; No Further Action

Table 8: Possible Compliance Issues for CMM 07-2021 (Port Inspections)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 07-2021 (Port Inspections)	2021/22 Compliance Status
Peru	Non-compliant <i>- Para 11 & 24 (Peru will make their best efforts to provide the outstanding information, if possible, noting limitations with 3rd party providers)</i>	<p>Secretariat Assessment: Paragraph 24</p> <p>There is a potential compliance issue identified with respect to paragraph 24 in that 6 Inspection Reports from October 2021 were sent to the Secretariat in February 2022. (Note: These Inspection Reports were submitted as part of the broader follow-up to the “Port Inspection” issues raised at the CTC09 meeting. Since the submission of “missing reports” from 2021 there has not been any further issues identified with Peru’s submission of Inspection reports in a timely manner for Port Inspections occurring during 2022).</p> <p>Comment by Member/CNCP:</p> <p>In relation to the presentation of Annex 3 (Port Inspection form), six (6) Port Inspection Reports that were made in October 2021 were sent to the Secretariat in February 2022 corresponding to foreign fishing vessels named <i>ZHE PU YUAN 98, LU RONG YUAN YU 668, LIAO YU YI HAO, JING YUAN 601, JING YUAN 608</i> and <i>LIAO YU 6</i>, due to a high administrative burden, as well as the reduction of operational capacity as a result of infections by COVID 19 within the Directorate of Supervision and Inspection.</p> <p>CTC Consideration:</p> <p>The improvement in the timely provision of Port Inspection information was noted by the CTC.</p>	Non-compliant; No Further Action



Table 9: Possible Compliance Issues for CMM 08-2019 (Gillnets)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 08-2019 (Gillnets)	2021/22 Compliance Status
No potential compliance issues identified			

Table 10: Possible Compliance Issues for CMM 09-2017 (Seabirds)

Member /CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 09-2017 (Seabirds)	2021/22 Compliance Status
No potential compliance issues identified			

Table 11a: Member comments in relation to paragraph 1b of CMM 10-2020 (CMS)

Member/ CNC	Areas in which technical assistance or capacity building may be needed to assist Members and CNCs to achieve compliance
Panama	<i>Proper Handling of Regulations</i>

Table 11b: Member comments in relation to paragraph 1c of CMM 10-2020 (CMS)

Member/ CNC	Aspects of CMMs which may require improvement or amendment to facilitate or advance their implementation.
Australia	<i>We have no specific comments on CMMs at this time. However, we suggest continual review of this reporting form to see if we can streamline it to make it easier to complete. There are many questions in this form that, for most Members, will have similar answers to previous years and once they are implemented, they would not fall out of compliance unless there was a significant domestic change (e.g. implementation of a national record of vessels authorised to fish in SPRFMO, applying the HSBI procedures). Some questions may only need to be answered once and could be pre-populated for the Member to confirm in the following year. This may make the compliance report easier to complete and result in more compliance reports being submitted in a timely and consistent manner, thus potentially reducing the amount of time discussing the compliance report at CTC.</i>



Table 11c: Possible Compliance Issues for CMM 10-2020 (CMS)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 10-2020 (CMS)	2021/22 Compliance Status
Belize	N/A – Prior to becoming CNCP	<p>Secretariat Assessment: Paragraph 5</p> <p>There is a possible compliance issue under Paragraph 5a due to the Secretariat receiving Belize’s Annual Implementation Report on 16 November 2022 (7 days after the 09 November 2022 due date).</p> <p>Comment by Member/CNCP: We wish to reiterate our apologies for late submission of this report. As indicated, this was our first experience completing this form. As we had no vessels during the reporting period and was not sure if a report should still be submitted. This was also coupled with the fact that our Administration was in the process of an institutional assessment during that time which hindered/delayed the work of our Unit. We shall ensure that all reports to the Commission are submitted on or before the deadline period regardless of any inactivity by our vessels.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further Action
Cuba	Non-compliant- <i>Further action needed to take steps to ensure that the obligation is met in the future</i>	<p>Secretariat Assessment: Paragraph 5</p> <p>There is a possible compliance issue under Paragraph 5a due to the Secretariat NOT receiving Cuba’s Implementation Report. Implementation Reports were due 09 November 2022.</p> <p>Comment by Member/CNCP: At the CTC meeting Cuba committed to providing the Implementation Reports from the 2020/21 and 2021/22 Reporting periods and indicated that the reports would be provided in future.</p> <p>CTC Consideration:</p> <p>CTC recommended that any compliance issues that arise from Cuba’s outstanding implementation reports are included in the 2022/23 draft Compliance Report.</p>	Non-compliant- <i>Further action needed to provide outstanding reports</i>
Ecuador	Non-compliant- <i>Para 5- Further action needed to take steps to ensure that the obligation is met in the future</i>	No possible compliance issues identified.	Compliant
Russian Federation	Non-compliant- <i>Para 5- Further action needed to take</i>	No possible compliance issues identified	Compliant



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 10-2020 (CMS)	2021/22 Compliance Status
	<i>steps to ensure that the obligation is met in the future</i>		
Faroe Islands	Non-compliant- <i>No further action- Para 5</i>	No possible compliance issues identified.	Compliant



Table 12: Possible Compliance Issues for CMM 11-2015 (Boarding and Inspection)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 11-2015 (Boarding and Inspection)	2021/22 Compliance Status
China	Compliant	<p>Secretariat Assessment: Paragraph 1</p> <p>There are possible compliance issues pursuant to CMM 11-2015 paragraph 1 due to China not ensuring that Masters of vessels in its fleet accept / facilitate boardings (Article 22.3) and in the event of a refusal by a Master, to direct the Master to immediately submit to a boarding and if the Master does not comply, suspend the vessels authorization, and order the vessel to return immediately to port (Article 22.4). These matters are in relation to the refusal by 2 Chinese flagged vessels (ZHOU YU 929; PU YUAN 755) on 04 August 2022 to allow a US boarding party onboard for inspection. Following the refused boardings, both vessels continued to operate in the SPRFMO Convention Area and as of the end of the reporting period (30 September 2022) both were in SPRFMO.</p> <p>Comment by Member/CNCP: According to your draft report, the reason of the potential compliance issue is because "China not ensuring that Master to immediately submit to a boarding and if the Master does not comply, suspend the vessels authorization, and order the vessel to return immediately to port". I wish to say that, first, China is not a Contracting Party to the 1995 Fish Stock Agreement, especially, when signing this Agreement, China made a statement on Article 21 and 22; Secondly, China made and circulated through the Secretariat a statement on 24 August, 2015 when the CMM 11-2015 entered into force, raised some requirement in such statement for those Contracting Parties whose inspection vessel will board Chinese fishing vessels, in order to avoid unnecessary troubles, including: (1) only inspection vessel listed in the register could board and inspect HSBI, for those not in the register, fishing vessels could reject HSBI for sake of security; (2) Any inspection vessel intend to board Chinese fishing vessel, should notify Chinese fisheries authority at least 24 hours in advance, for Chinese authority to verify whether the inspection is duly authorized, and inform the fishing vessels to cooperate and accept HSBI accordingly; (3) Recommend to use a questionnaire in Chinese or have the capability to communicate with vessel master in Chinese. We did not see any registration of such inspection vessels on the SPRFMO website; second, we did not receive the 24-hour advance notification; third, our consideration for the safety and health of both fishermen and the inspectors under the COVID-19 pandemic. For all these reasons, my government ordered the fishing vessels to refuse the HSBI of the United States of America rather than behavior of fishing vessels themselves. So, we do not think this is a compliance issue.</p> <p>CTC Consideration:</p>	Commission did not assess this case.
Panama	Compliant	<p>Secretariat Assessment: Paragraph 1</p> <p>There are possible compliance issues pursuant to CMM 11-2015 paragraph 1 due to Panama not ensuring that Masters of vessels in its fleet accept / facilitate boardings (Article 22.3) and in the event of a refusal by a Master, to direct the Master to immediately submit to a boarding and if the Master does not comply, suspend the vessels authorization, and order the vessel to return immediately to port (Article 22.4). These matters are in relation to the refusal by a Panamanian flagged vessel (YONG</p>	Compliant



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 11-2015 (Boarding and Inspection)	2021/22 Compliance Status
		<p>HANG 3) on 06 August 2022 to allow a US boarding party onboard for inspection. Following the refused boardings, the vessel continued to operate in the SPRFMO Convention Area until 25 August when it commenced transiting NE and exited the Convention Area 30 August. Panama advised the Secretariat on 01 September to temporary suspend the SPRFMO authorization. Authorization was reinstated on 29 October 2022 by Panama. Following this, the Secretariat was notified to remove the vessel from the list of Authorized vessels on 15 December 2022.</p> <p>Comment by Member/CNCP: Please note that the vessel in question was sanctioned by Panama for non-compliance with the aforementioned measure. Attached is the report of the administrative sanctioning process which was sent by Panama to the Secretariat of the Organization, via e-mail under Official Note AG-1127* on December 30, 2022 (NZT).</p> <p>(*Secretariat Note: The 5-page report (PAN File: AG-1127-2022) was distributed on 05 January 2023 by the Secretariat to Members/CNCPs as correspondence G03-2023).</p> <p>CTC Consideration: Panama explained the timeline and sequence of actions taken. The CTC considered the actions taken by Panama as being appropriate.</p>	

Table 13: Possible Compliance Issues for CMM 12-2020 (Transshipment)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 12-2020 (Transshipment)	2021/22 Compliance Status
Liberia	Compliant	<p>Secretariat Assessment: Paragraph 8 There is a possible compliance issue under Paragraph 8 due to the Secretariat not receiving the operational details for squid transshipments within 20 days of the end of each quarter. The Jan-Mar details were received on 26 April 2022 (due 20th April) and the Jul-Sept details were received on 02 November 2022 (due 20th October).</p> <p>Comment by Member/CNCP: Liberia worked with the Secretariat to provide the late reports and made an explicit commitment to report in a timely manner in the future.</p> <p>CTC Consideration:</p>	Non-Compliant; No Further action
European Union	Non-compliant- <i>No further action (Paragraph 4)</i>	No possible compliance issues identified.	Compliant



Table 14: Possible Compliance Issues for CMM 13-2021 (Exploratory Fisheries)

Member/ CNP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 13-2021 (Exploratory Fisheries)	2021/22 Compliance Status
Russian Federation	Defer to CTC10	<p>Secretariat Assessment: Paragraph 4/17</p> <p>Carry forward from Reporting Period 2020-21 to CTC10: There is a possible compliance issue pursuant to paragraph 4 and 17 due to a Russian flagged trawler engaging in fishing for Alfonsino (BYS) using Pelagic gear during the reporting period. Port Inspection information indicates that 3 offloads* (Oct 2020; April 2021, May 2021) during the reporting period resulted in ~1,092 tonnes BYS being landed (noting a further 205 tonnes was landed in October 2021). The Secretariat does not have records of Alfonsino being fished in SPRFMO with Pelagic Trawl during the last 10 years, hence this activity likely meets the threshold required for an exploratory fishery.</p> <p>Additionally, on 4 September 2020 Russia sent an email seeking clarification in the case of the Flag State intention to fish Beryx splendens (BYS). The Secretariat response included reference to the Bottom Fishing CMM provisions and identified that if the proposed activity was outside of this (i.e., outside the defined Management Areas or using a different fishing method within those areas) then the flag State should follow the process described in CMM13-2020 (Exploratory Fisheries). On 18 February 2021 Russia sent a letter requesting clarification for flag States intending to fish various species (including BYS) using Pelagic methods. The Secretariat responded (DC24-2021) that 5 species (including BYS) had not been subject to fishing in the previous ten years using pelagic gear types and therefore would be considered “exploratory fisheries”.</p> <p>Additional Context: *“Quantity Offloaded” Information from the 3 Port Inspections referenced above: (CJM=Jack Mackerel; MAS=Chub Mackerel; BYS= Alfonsino; EMM=Red Bait) Oct 2020: CJM 1,897.3t; MAS 208.6t; BYS 114.8t; EMM 9.7t (Retained onboard: CJM 1.6t) Apr 2021: CJM 2.9t; BYS 887.4t; EMM 1,307t (Retained onboard: CJM 29.9t) May 2021: CJM 1,102.8t; MAS 116.2t; BYS 89.6t; EMM 1,090.8t (Retained onboard: Nil)</p> <p>Final Compliance Report: CTC spent significant amount of time discussing this matter, however, agreement between Russia and the CTC was not able to be reached on whether or not the fishing that took place, which resulted in the catching of BYS, was directed fishing for BYS or that it was caught as bycatch. The CTC recognised that separate analyses would be required in order to make a judgement as to whether or not directed fishing took place, which would have ultimately informed whether or not a breach of 13-2021 took place. The matter was referred to the Fisheries Commission where following additional discussion it was deferred to CTC10.</p> <p>COMM10 Report (Para 44-45): The Commission gave detailed consideration to the possible non-compliance issue concerning the Russian Federation-flagged vessel. The Commission determined that further analyses would be required before it could form any conclusions on this possible compliance issue. The Commission determined that the compliance status for Russia will be deferred</p>	<p>Alfonsino (BYS): Defer to CTC11.</p> <p>Redbait- Not Assessed; Further Action: directed redbait fishing should not continue until catch advice from the SC and a CMM in place. Would like to review CMM 13, to improve clarity.</p>



Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 13-2021 (Exploratory Fisheries)	2021/22 Compliance Status
		<p>until the 2023 CTC meeting (CTC10). The compliance matter in question will be included in the CTC10 Draft Compliance Report for further consideration by CTC10. CTC10 will review the results of the SC task and any other relevant information and will recommend an appropriate compliance status in the Provisional Compliance Report.</p> <p>SC10 Report: The results of the Species Composition Task Group catch were discussed by the SC in its 2022 meeting. These discussions and the SC responses can be found in Section 8.2 of the SC10-Report. The Secretariat notes that Section 8.3 on Scope and Application of the Exploratory Fisheries CMM could also be considered as relevant information.</p> <p>Current Reporting Period 2021-22:</p> <p>There is a possible compliance issue pursuant to paragraph 4 and 17 due to a Russian flagged trawler, Admiral Shabalin, engaging in fishing for Alfonsino (BYS) using Pelagic gear during the reporting period. The Secretariat does not have records of Alfonsino being fished in SPRFMO with Pelagic Trawl during the last 10 years, hence this activity likely meets the threshold required for an exploratory fishery. Following on from reference in the CTC09 information summary, specifically for reporting period 2021-22, an in-port inspection in Chile on 29-30 October 2021 took place where the total catch on board was offloaded. The inspectors identified the offloaded fish product to consist of 582.432t EMM, 205.416t BYS and 10.099t fish meal (EMM). (Note: Subsequent inspections during the reporting period 2021-22 (10 between April 2022 and September 2022) identified catch on board consisting of only CJM and MAS).</p> <p>Comment by Member/CNCP: 2020/21 “Comments by Member” (2020/21 Final Compliance Report):</p> <p>The Russian side, in accordance with the information provided by the Secretariat on the issue of Alfonsino (BYS) by-catch during the previous period, reports the following. The catches were dominated by <i>Trachurus murphyi</i> during the reporting period. In recent years, <i>Trachurus murphyi</i> has been fished in large areas, due to the need to search for commercial fish stocks <i>Trachurus murphyi</i>. Moreover, over the entire specified period, Alfonsino (BYS) was never the main species in the catch. However, other fish species have been recorded as by-catch also. In the process of carrying out fishing operations, the Russian fishing vessel did not intend to carry out exploratory or new fishery of Alfonsino (BYS). It is common practice to have “others by-catch” during one fish species. In this regard, it may be necessary to clarify Conservation Measure 01-2021 with respect to the definition of the level of allowable by-catch.</p> <p>2021/22 Comments (response to Initial Draft Compliance Report):</p> <p>Given a possible compliance issue pursuant to paragraph 4 and 17 of the Conservation and Management Measure for the Management of New and Exploratory Fisheries in the SPRFMO Convention Area (CMM 13-2021), with respect to the 2021/22 Reporting period we would like to clarify the following.</p> <p>The 10th Scientific Committee Meeting (SC10) of the SPRFMO (26-30 September 2022) based on the Species Composition Task Group discussions examined the catch composition research on Alfonsino and recommended that all Members and Cooperating non-Contracting Parties comply with catch reporting of all species, as the report noted all (by)catch species are required to be reported in the fisheries activity data. The development of a working definition of the existing fisheries in SPRFMO covered by existing CMMs was also recommended by the SC10.</p>	



Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 13-2021 (Exploratory Fisheries)	2021/22 Compliance Status
		<p>In addition, the fishing vessel “Admiral Shabalin” was authorized to engage in fishing in the Convention Area in accordance with the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean and the SPRFMO Conservation and Management Measures. The vessel’s catch composition consisted of redbait (EMM) as the target species with Alfonsino as the bycatch species. In this connection, we would like to highlight that the Russian fishing vessel’s bycatch of Alfonsino is not qualified an exploratory fishery.</p> <p>In conclusion, we confirm the importance of implementation of the SPRFMO Conservation and Management Measures, the conservation and sustainable use of the fisheries resources and the enhancement of cooperation in the framework of the SPRFMO.</p> <p>CTC Consideration:</p>	
European Union	Priority non-compliant, <i>No further action (Paragraph 4/17)</i>	No possible compliance issues identified.	Compliant

Table 15: Possible Compliance Issues for CMM 14a-2019 (Exploratory Toothfish Fishery – New Zealand Only)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 14a-2019 (Exploratory Toothfish Fishery – New Zealand Only)	2021/22 Compliance Status
New Zealand	Compliant	<p>Secretariat Assessment: Paragraph 6</p> <p>There is a potential compliance issue with respect to Paragraph 6 which requires some of the trips to occur between August and October (post spawning period) each year. The San Aspiring only carried out a single trip to the research blocks in March 2022.</p> <p>Member/CNCP Comment:</p> <p>New Zealand does not consider the issue raised in relation to paragraph 6 is a compliance issue but acknowledge there is some ambiguity in the wording.</p> <p>CTC Consideration:</p> <p>NZ advised that the text in the CMM would be clarified at CTC 11 to better reflect the intentions of the paragraph</p>	



Table 16: Possible Compliance Issues for CMM 14b-2021 (Exploratory Potting Fishery – Cook Islands Only)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 14b-2021 (Exploratory Potting Fishery – Cook Islands Only)	2021/22 Compliance Status
No potential compliance issues identified.			

Table 17: Possible Compliance Issues for CMM 14d-2020 (Exploratory Toothfish Fishery – Chile Only)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 14d-2020 (Exploratory Toothfish Fishery – Chile Only)	2021/22 Compliance Status
During the reporting period Chile did not conduct any activities under this CMM			

Table 18: Possible Compliance Issues for CMM 14e-2021 (Exploratory Toothfish Fishery – European Union Only)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 14e-2021 (Exploratory Toothfish Fishery – EU Only)	2021/22 Compliance Status
No potential compliance issues identified.			

Table 19: Possible Compliance Issues for CMM 15-2016 (Stateless Vessels)

Member/ CNC	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 15-2016 (Stateless Vessels)	2021/22 Compliance Status
No possible compliance issues identified.			



Table 20: Possible Compliance Issues for CMM 16-2021 (Observer Programme)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 16-2021 (Observer Programme)	2021/22 Compliance Status
No possible compliance issues identified			

Table 21: Possible Compliance Issues for CMM 17-2019 (Marine Pollution)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 17-2019 (Marine Pollution)	2021/22 Compliance Status
No possible compliance issues identified			

Table 22: Possible Compliance Issues for CMM 18-2020 (Jumbo Flying Squid Fishery)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 18-2020 (Jumbo Flying Squid Fishery)	2021/22 Compliance Status
China	Non-Compliant, <i>No Further Action;</i> <i>Paragraph 10</i>	No possible compliance issues identified.	Compliant

Table 23: Possible Compliance Issues for CMM 19-2021 (Fishing Vessel Markings)

Member/ CNCP	2020/21 Compliance Status	2021/22 Assessments - Possible Compliance Issues for CMM 19-2021 (Fishing Vessel Markings)	2021/22 Compliance Status
<i>This CMM was not assessed due to its entry into force date being 1 January 2023.</i>			

EXECUTIVE SUMMARY OF THE FINAL COMPLIANCE REPORT

(Assessing 2021/22)

In accordance with CMM 10-2020, Paragraph 17, below is the executive summary from the Commission.

a) Compliance Status

The Commission accepted the compliance status assigned by the CTC for each possible compliance issue identified in the provisional compliance report, including VMS reporting issues deferred from CTC09. Notations whether any specific further action or follow up is required have been made as applicable for individual issues. Additionally, the Commission undertook discussions on two compliance issues referred from CTC10 for further consideration pertaining to CMM11-2015 (*Boarding and Inspection*) and CMM13-2021 (*Exploratory Fisheries*).

b) Suggestions for possible amendments or improvements to existing CMMs to address implementation or compliance difficulties

In the framework of the Draft Compliance Report, discussions were held with respect to improving implementation. These included various aspects pertaining to CMMs such as Exploratory Fisheries, Vessel Monitoring System and Boarding and Inspection.

It was noted that 20 proposals were submitted to the Commission in order to amend current CMMs, key elements of each proposal were introduced at the CTC under agenda item 6 on Conservation and Management Measures and most were referred to the Commission for further discussion and consideration. Several proposals were recommended by CTC for approval. Proposals adopted by the Commission will be noted in the Commission report.

c) Obstacles to Implementation Identified by Members

The Commission noted the CTC recommendation that CMM 13-2021 (*Exploratory Fisheries*) could benefit from a review to improve clarity in the language. Likewise, one Member indicated that it planned to review language in CMM 14a-2022 and make necessary edits to improve the clarity of the measure.

d) Additional Obligations to be Reviewed under the CMS

The review and updating of the mandatory information on the Record of Vessels (paragraph 2, Annex 1 of CMM 05-2021) was undertaken in 2022 with a deadline established of 31 December 2022 for Members and CNCPs to provide any missing information and update their records. While there has been good success in updating the Record of Vessels information the Secretariat will continue to follow up with Members/CNCPs as required to finalize the exercise. There was no assessment of any elements pertaining to CMM 05-2021 Annex 1 at CTC10, however the assessment of Annex 1 obligations will resume for the next Compliance Reporting period.

e) Other Actions the Commission Deem Appropriate

No issues were identified for working groups or intersessional work.



Other observations

Improvements were noted on CMM 07-2022, where since the submission of “missing reports” from 2021 for one Member, there has not been any further issues identified with submission of port inspection related reports in a timely manner for Port Inspections occurring in 2022 for the same Member.

There is a significant ongoing interaction between Members-CNCPs and the Secretariat on VMS matters. Several Members noted the good cooperation with the Secretariat in resolving the potential VMS compliance issues identified throughout the reporting period.

Follow up actions for previous years

CTC 10-Doc10 reported on the progress of follow-up actions respect to issues from previous years. Of the 4 follow up actions identified in the 2020/21 Compliance Report, 3 commitments were fulfilled and 1 issue is ongoing (provision of Implementation Reports by Cuba) and will be updated again at CTC 11. With respect to the 4 follow up actions pertaining to other compliance related commitments, 3 were fulfilled and 1 (Annex 1 Record of Vessels information updating) will be reported on in CTC 11.



2023 Provisional Compliance Report (Assessing the 2021/22 Reporting Period)

Table 24 below shows “Compliance Status” for each Members/CNCP versus each CMM as assigned in the previous tables.

Note: 1) where a Member/CNCP has 2 compliance issues within a single CMM, only the most serious compliance status as defined in Annex I of CMM 10-2020 is shown; 2) VMS issues assessed for 2 reporting periods (2021/22 and 2020/21).

Assessed CMM	01-2022	02-2022	03-2022	03a-2021	04-2020	05-2022	06-2020	07-2022	08-2019	09-2017	10-2020	11-2015	12-2020	13-2021	14a-2022	14b-2022	14d-2020	14e-2021	15-2016	16-2022	17-2022	18-2020	19-2021	
Australia							21/22 20/21																	n/a
Chile							21/22 20/21										n/a							n/a
China							21/22 20/21					No status assigned												n/a
Cook Islands							21/22 20/21																	n/a
Cuba																								n/a
Ecuador																								n/a
European Union							21/22 20/21																	n/a
Faroe Islands																								n/a
Korea																								n/a
New Zealand							21/22 20/21																	n/a
Panama							21/22 20/21																	n/a
Peru							21/22 20/21																	n/a
Russian Federation							21/22 20/21																	n/a
Chinese Taipei																								n/a
Vanuatu																								n/a
USA																								n/a
Belize																								n/a
Curacao							21/22 20/21																	n/a
Liberia							21/22 20/21																	n/a
2023 Final CMS	1	8	0	1	0	2	10 8	1	0	0	2	0	1	0	0	0	n/a	0	0	0	0	0	0	0 n/a



KEY: Compliant, Non-compliant, Priority non-compliant, Seriously/Persistently non-compliant

Assessed CMM	PRIOR YEARS – NON_COMPLIANT SUMMARY FROM FINAL CMS																						
	01-2022	02-2022	03-2022	03a-2021	04-2020	05-2022	06-2020	07-2022	08-2019	09-2017	10-2020	11-2015	12-2020	13-2021	14a-2022	14b-2022	14c-2019	14d-2020	14e-2021	15-2016	16-2022	17-2022	18-2020
2022	0	1	0	0	0	5	0	1	0	0	4	0	1	1	0	n/a	-	n/a	n/a	0	0	0	1
2021	0	8	0	0	0	3	1	0	0	1	7	0	0	0	0	0	0	n/a	-	0	0	0	n/a
2020	1	1	0	0	0	4	1	3	0	1	5	2	2	0	0	0	0	n/a	-	0	0	2	n/a
2019	3	2	0	n/a	3	6	4	0	0	0	7	0	4	0	n/a	0	n/a	n/a	-	0	n/a	n/a	n/a
2018	5	4	2	n/a	0	4	0	3	0	1	4	0	2	1	n/a	n/a	n/a	n/a	-	0	n/a	n/a	n/a
2017	4	4	0	n/a	0	8	n/a	4	0	2	5	0	6	n/a	n/a	n/a	n/a	n/a	-	0	n/a	n/a	n/a
2016	9	9	2	n/a	1	8	n/a	6	0	6	8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 6b SPRFMO 2023 Final IUU Vessel List (COMM 11 – WP18)

(Note: The list does not contain any vessels)

Name of vessel	Not Applicable – There are no vessels listed
Flag of vessel	
Owner Name & Address	
Previous Owner	
Vessel Operator	
Previous Operator	
Call sign vessel	
IMO number	
Other identifier	
Photograph of vessel	
Date the vessel was first included in the IUU List	
Summary of activities that justifies the inclusion of the vessel on the List, together with reference to all relevant documents informing of and evidencing those activities	

(Italics indicates former details; underline indicates details at the time of the IUU activities – last update N/A)



11TH MEETING OF THE COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7a

Conservation and Management Measure 01-2023 *Trachurus murphyi*

(COMM 11 – WP 24_rev1)

ADOPTED

By VOTE for ADOPTION 13 (Y) to 3 (N)



CMM 01-202~~2~~3

Conservation and Management Measure for *Trachurus murphyi* (supersedes CMM 01-202~~1~~2)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out ~~on 27 September to 2 October 2021 in 2022,~~ and the advice of the Scientific Committee and the SC multi annual workplan including the Management Strategy evaluation;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-202~~2~~3) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-202~~2~~3 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

~~4.~~ Relevant Members and CNCPs shall limit the total gross tonnage (GT)[‡] of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

~~5.4.~~ In 202~~23~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~817,943~~ 981,833 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.

~~6.5.~~ Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.

~~7.6.~~ In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.

~~8.7.~~ The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.

~~9.8.~~ By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.

~~10.9.~~ Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 202~~23~~ throughout the range of the stock should not exceed ~~900,000~~ 1,080,000 tonnes.

~~11.10.~~ The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph ~~10.9~~. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph ~~10.9~~ has been reached.

[‡]In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

~~12.11.~~ Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2022 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.

~~13.12.~~ When total catches have reached 70% of the amount indicated in paragraph ~~109~~, Members and CNCPs agree to implement a 15-day reporting period:

- a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
- b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.

~~14.13.~~ The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.

~~15.14.~~ Except as described in paragraphs ~~1211~~ and ~~1312~~ above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2022 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

~~16.15.~~ The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

~~17.16.~~ Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.

~~18.17.~~ Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-202~~23~~ (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.

~~19.18.~~ The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2022 (Data Standards).

~~20.19.~~ In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 202~~23~~ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 202~~23~~ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 202~~23~~ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



together with the reasons for not doing so.

21.20. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.

22.21. The information collected under paragraphs 11, 1314 and 1819, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (20223) agreed by the Commission, in order to provide updated advice on stock status and recovery.

23.22. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:

- a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
- b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.

24.23. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2022 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25.24. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 1211-2423, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

26.25. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 109 of this CMM and the total catch



allocated in paragraph 54 of this CMM.

~~27-26.~~ Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph ~~2625~~ above, they agree to:

- a) submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
- b) report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
- c) cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.

~~28-27.~~ At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.

~~29-28.~~ In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

~~30-29.~~ In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

~~31-30.~~ This Measure shall be reviewed by the Commission in 202~~34~~. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), CMM 01-2019 (*Trachurus murphyi*), CMM 01-2020 (*Trachurus murphyi*)~~and~~, CMM 01-2021 (*Trachurus murphyi*) and CMM 01-2022 (*Trachurus murphyi*)—as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.

~~32-31.~~ Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2023 to 2032 inclusive.~~Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2022 inclusive.~~



Table 1: Tonnages in 2023 fishery as referred to in paragraph 4.

<u>Member / CNCP</u>	<u>Tonnage</u>
<u>Belize</u>	<u>1,100</u>
<u>Chile</u>	<u>716,758</u>
<u>China</u>	<u>63,136</u>
<u>Cook Islands</u>	<u>1,100</u>
<u>Cuba</u>	<u>2,219</u>
<u>Ecuador</u>	<u>12,570</u>
<u>European Union</u>	<u>60,758</u>
<u>Faroe Islands</u>	<u>11,027</u>
<u>Korea</u>	<u>12,753</u>
<u>Panama</u>	<u>1,100</u>
<u>Peru (HS)</u>	<u>20,175</u>
<u>Russian Federation</u>	<u>32,649</u>
<u>Vanuatu</u>	<u>46,487</u>
<u>Total</u>	<u>981,833</u>

Table 2: Percentages³ related to the catches referred to in paragraph 9.

<u>Member / CNCP</u>	<u>%</u>
<u>Belize</u>	<u>0.1019%</u>
<u>Chile</u>	<u>66.3665%</u>
<u>China</u>	<u>5.8459%</u>
<u>Cook Islands</u>	<u>0.1019%</u>
<u>Cuba</u>	<u>0.2055%</u>
<u>Ecuador</u>	<u>1.1639%</u>
<u>European Union</u>	<u>5.6257%</u>
<u>Faroe Islands</u>	<u>1.0211%</u>
<u>Korea</u>	<u>1.1808%</u>
<u>Panama</u>	<u>0.1019%</u>
<u>Peru (HS)</u>	<u>1.8681%</u>
<u>Russian Federation</u>	<u>3.0230%</u>
<u>Vanuatu</u>	<u>4.3044%</u>

³ These percentages shall apply from 2023 to 2032³ inclusive.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7b Conservation and Management Measure 03-2023 Bottom Fishing

(COMM 11 – Prop 08_rev4)

ADOPTED 11:30AM 17/2/23

CMM 03-202~~2~~³

Conservation and Management Measure for the Management of Bottom Fishing in the SPRFMO Convention Area

(Supersedes CMM 03-202~~1~~²)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECOGNISING Article 2 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the Convention), which provides that the objective of the Convention is, through the application of the precautionary approach and an ecosystem approach to fisheries management, to ensure the long-term conservation and sustainable use of fishery resources and, in so doing, to safeguard the marine ecosystems in which these resources occur;

FURTHER RECOGNISING Articles 3(1)(a)(i) and (vii) of the Convention, which call on the Commission, in giving effect to the objective of the Convention, to adopt Conservation and Management Measures (CMMs) that take account of international best practices and protect marine ecosystems, particularly ecosystems with long recovery times following disturbance;

FURTHER RECOGNISING Articles 3(1)(b) and (2) of the Convention which call on the Commission to apply the precautionary approach and an ecosystem approach to the conservation and management of fishery resources under the mandate of the Convention;

FURTHER RECOGNISING Article 4 of the Convention in which Contracting Parties acknowledge their duty to cooperate to ensure compatibility of (CMMs) established for fishery resources that are identified as straddling areas under national jurisdiction and the adjacent high seas of the Convention Area;

MINDFUL of Article 31(1) of the Convention which calls on the Commission to cooperate with other regional fisheries management organisations (RFMOs), the Food and Agriculture Organization of the United Nations (FAO), other specialised agencies of the United Nations and other relevant organisations on issues of mutual interest;

RECALLING that in 2007, Participants in the International Consultations on the Establishment of the South Pacific RFMO adopted voluntary interim management measures, including *inter alia*, for the management of bottom fisheries in the Convention Area;

NOTING United Nations General Assembly (UNGA) Resolution 61/105 which calls upon RFMOs to assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems (VMEs), and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorised to proceed;

FURTHER NOTING UNGA Resolution 64/72 which calls upon RFMOs to establish and implement appropriate protocols for the implementation of UNGA Resolution 61/105, including definitions of what constitutes evidence of an encounter with a VME, in particular threshold levels and indicator species; and to implement the FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas (FAO, 2009; FAO Deep-sea Fisheries Guidelines) in order to sustainably manage fish stocks and protect VMEs;

FURTHER NOTING UNGA Resolution 66/68 which encourages RFMOs to consider the results available from marine scientific research, including those obtained from seabed mapping programmes concerning the identification of areas containing VMEs, and to adopt CMMs to prevent significant adverse impacts from bottom fishing on such ecosystems, consistent with the FAO Deep-sea Fisheries Guidelines, or to close such areas to bottom fishing until such CMMs are adopted, as well as to continue to undertake further marine scientific research, in accordance with international law as reflected in Part XIII of the 1982 Convention;



FURTHER NOTING UNGA Resolutions 71/123 and 72/72 which call upon RFMOs to use the full set of criteria in the FAO Deep-sea Fisheries Guidelines to identify where VMEs occur or are likely to occur as well as for assessing significant adverse impacts, to ensure that impact assessments, including for cumulative impacts of activities covered by the assessment, are conducted consistent with the FAO Deep-sea Fisheries Guidelines, are reviewed periodically and are revised whenever a substantial change in the fishery has occurred or there is relevant new information, and that, where such impact assessments have not been undertaken, they are carried out as a priority before authorising bottom fishing activities, and to ensure that CMMs are based on and updated on the basis of the best available scientific information, noting in particular the need to improve effective implementation of thresholds and move-on rules;

FURTHER NOTING UNGA Resolution 77/118 which calls on States and RFMOs to identify and overcome barriers in the implementation of earlier Resolutions such as data availability, especially with regard to baseline data and the spatial distribution and connectivity of vulnerable marine ecosystems, including their associated and dependent species, while recognizing the importance of international collaboration for this purpose; and recognizing that effective management of bottom fisheries is crucial to ensure the long-term sustainability of the sector;

MINDFUL that the Report of the Bottom Fishing Intersessional Working Group contained in COMM11-DOC07 provides a comprehensive review of this conservation and management measure and the technical work, and that SPRFMO is using best available science;

ENCOURAGED that the Scientific Committee's Multi-Annual Work Plan will contribute to improving the Commission's understanding of vulnerable marine ecosystems within the SPRFMO Convention Area.

DETERMINED to ensure that the precautionary approach is applied, including in the utilization of impact assessments to inform management decisions and consideration of significant adverse impacts on vulnerable marine ecosystems, including their associated and dependent species, consistently with the actions called for by UNGA Resolution 77/118;

RECOGNIZING the immense importance and value of deep-sea ecosystems and the biodiversity they contain, as documented in the first World Ocean Assessment;

BEARING IN MIND the description in FAO Deep-sea Fisheries Guidelines are generally recommended international minimum standards to be taken into account, and that the Guidelines describe of what constitutes significant adverse impacts, factors to be considered when determining the scale and significance of an impact, what constitutes temporary impacts and factors to be considered in determining whether an impact is temporary;

REAFFIRMING the steps already taken by the Commission to address the impacts of large-scale pelagic driftnets and all deepwater gillnets in the Convention Area, through the implementation of CMM 08-2019 (Gillnetting);

RECOGNISING Articles 20(1)(a) and (d) of the Convention, which provide that the CMMs adopted by the Commission shall include measures to ensure the long-term sustainability of fishery resources and promote the objective of their responsible utilisation, and to protect the habitats and marine ecosystems in which fishery resources and non-target and associated or dependent species occur from the impacts of fishing, including measures to prevent significant adverse impacts on VMEs and precautionary measures where it cannot adequately be determined whether VMEs are present or whether fishing would cause significant adverse impacts on VMEs;

FURTHER RECOGNISING Article 22 of the Convention, which provides that a fishery that has not been subject to fishing or has not been subject to fishing with a particular gear type or technique for ten years or more shall be opened only when the Commission has adopted cautious preliminary CMMs in respect of that fishery, and, as appropriate, non-target and associated or dependent species, and appropriate measures to



protect the marine ecosystem in which that fishery occurs from adverse impacts of fishing activities;
ADOPTS the following CMM in accordance with Articles 8, 20, 21 and 22 of the Convention:

Objective

1. The objective of the CMM together with CMM 03a-2021 (Deepwater Species) is, through the application of the precautionary approach and an ecosystem approach to fisheries management, to ensure the long-term conservation and sustainable use of deep sea fishery resources, including target fish stocks as well as non-target or associated and dependent species, and, in doing so, to safeguard the marine ecosystems in which these resources occur, including *inter alia* the prevention of significant adverse impacts on vulnerable marine ecosystems.

Definitions

2. For the purposes of this CMM, the term “bottom fishing” is defined as fishing using any gear type likely to come in contact with the seafloor or benthic organisms during the normal course of operations, and includes *inter alia*:
 - a) “Bottom trawl” which is defined as fishing using a trawl net that is designed to be pulled through the water and to come into contact with the seabed;
 - b) “Mid-water trawl” which is defined as fishing for benthic-pelagic species using a trawl net that is designed to be pulled through the water near the seabed and designed not to come into extended contact with the seabed;
 - c) “Bottom line” which is defined as fishing using a line to which a hook or hooks (whether baited or not) are attached and rigged to sink and fish on or near the seabed. This includes, but is not limited to, longlines, hand lines, drop lines, trot lines, and dahn lines.
3. For the purposes of this CMM, the term “vulnerable marine ecosystem” (VME) means a marine ecosystem that has the characteristics referred to in paragraph 42 of, and elaborated in the Annex to, the FAO Deep-sea Fisheries Guidelines.
4. For the purposes of this CMM, the term “Evaluated Area” means those parts of the Convention Area that are within the area starting at a point of 24°S latitude and 146°W, extending southward to latitude 57° 30S, then westward to 150°E longitude, northward to 55°S, westward to 143°E, northward to 24°S and eastward back to point of origin (Annex 1).
5. For the purposes of this CMM, the term “Management Area(s)” means those parts of the Evaluated Area specified in paragraph 13.
6. For the purposes of this CMM, the term “fishing year” means the period starting 0001 hours UTC on 1 January and ending 2359 hours on 31 December in the same year.

6bis For the purposes of this CMM, ‘Fishery Management Area’ has the same meaning as in CMM 03a-2021~~21~~.

General Provisions

- ~~6-7~~ This CMM applies to the entire Convention Area.
- ~~7-8~~ This CMM together with CMM 03a-2021 (Deepwater Species) are adopted as cautious preliminary CMMs consistent with Article 22(1) of the Convention.
- ~~8-9~~ This CMM together with CMM 03a-2021 (Deepwater Species) applies to all fishing vessels flying the flag of a Member or Cooperating non-Contracting Party (CNCP) to the South Pacific Regional Fisheries Management Organisation (SPRFMO) engaging or intending to engage in bottom fishing in the Convention Area.



~~9-10.~~ Members and CNCPs shall prohibit vessels flying their flag from participating in bottom fishing in the Convention Area other than in accordance with the provisions of this CMM together with CMM 03a-2021 (Deepwater Species).

~~10-11.~~ Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2022 (Record of Vessels) that are flagged to Members and CNCPs shall participate in bottom fishing in the Convention Area.

~~11-12.~~ No Member or CNCP shall authorise vessels flying their flag to engage in any bottom fishing in the Convention Area unless:

- a) Authorisation has been given by the Commission under paragraph 21(d)(i); or
- b) approval has been given by the Commission under paragraph 14 of CMM 13-2021 (Exploratory Fisheries).

Bottom Fishing Management Areas

~~12-13.~~ The Commission hereby establishes within the Evaluated Area the following Management Areas, the coordinates for which are provided in Annex 4:

- a) Bottom trawl Management Area
- b) Mid-water trawl Management Area
- c) Bottom line Management Area

~~13-14.~~ Bottom fishing in the Convention Area shall occur only in the three Management Areas established in paragraph 13 and in accordance with the terms of this CMM together with CMM 03a-2021 (Deepwater Species). CMM 13-2021 (Exploratory Fisheries) does not apply to bottom fishing in the three Management Areas established in paragraph 13.

~~14-15.~~ Notwithstanding paragraphs 10 and 14, proposals to undertake bottom fishing:

- a) outside a Management Area; or
- b) inside a Management Area using bottom fishing methods other than bottom trawl, midwater trawl or bottom line fishing; or
- c) in a mid-water trawl Management Area using bottom trawl gear or in a bottom line Management Area using bottom trawl or mid-water trawl gear; or
- d) inside a Management Area targeting species not previously targeted in the area proposed to be fished (unless the species has regularly been caught as part of an existing fishery);

shall be handled in accordance with CMM 13-2021 (Exploratory Fisheries).

~~15-16.~~ Unless a Member or CNCP is fishing in an exploratory fishery established pursuant to CMM 13-2021 (Exploratory Fisheries), Members and CNCPs shall ensure that vessels flying their flag comply with the following provisions:

- a) Bottom trawling shall only occur in a bottom trawl Management Area;
- b) Midwater trawling shall only occur in a midwater trawl Management Area or a bottom trawl Management Area;
- c) Bottom lining shall only occur in a Management Area.

~~16-17.~~ The Commission may in future establish, disestablish, or adjust the boundaries of the Evaluated Area or any Management Area, based on advice from the Scientific Committee.

~~17-18.~~ From 2024, the Commission shall apply a minimum of ~~70%~~ ~~80%~~ ~~90%~~ protection of suitable habitat for each modelled VME indicator taxa. The Commission, taking into account the advice and recommendations of the Scientific Committee, shall review the boundaries of the Management Areas established in paragraph 13 and Annex 4 of this CMM and make any modifications necessary to achieve this



~~level of protection at its 12th annual meeting in 2024¹. No later than at its 2023 annual meeting, the Commission shall decide on the level of protection required to prevent significant adverse impacts on VMEs, taking into account the advice and recommendations of the Scientific Committee.~~

Marine Mammals, Seabirds, Reptiles and Other Species of Concern²

~~18-19.~~ Members and CNCPs shall require vessels flying their flag and undertaking bottom fishing to implement seabird mitigation measures in accordance with CMM 09-2017 (Seabirds), and shall report annually to the Commission on bycatch rates and total bycatch estimates in accordance with CMM 02-2022 (Data Standards) and the Guidelines for Annual National Reports to the SPRFMO Scientific Committee.

~~19-20.~~ The Scientific Committee shall provide advice biennially to the Commission on:

- a) direct and indirect interactions between bottom fishing and marine mammals, seabirds, reptiles and other species of concern;
- b) any recommended spatial or temporal closures or spatially/temporally limited gear prohibitions for any identified hotspots of these species; and
- c) any recommended bycatch limits and/or measures for an encounter protocol for any of these species.

Assessment of Proposed Bottom Fishing

~~20-21.~~ Subject to paragraph 15, all proposals to undertake bottom fishing in one of the Management Areas established in paragraph 13 shall be subject to an assessment process, based on the best available scientific information and taking into account the history of bottom fishing in the areas proposed and cumulative impacts of past and proposed fishing. The assessment will determine if such fishing would contribute to having significant adverse impacts on VMEs, and to ensure that if it is determined that this fishing would make such contributions, that they are managed to prevent such impacts or not authorised to proceed. The assessments shall follow the following procedures:

- a) Each Member or CNCP proposing to participate in bottom fishing activities shall submit to the Scientific Committee a proposed assessment that meets the SPRFMO Bottom Fishery Impact Assessment Standard (SPRFMO BFIAS³) with the best available data including consideration of cumulative impacts, not less than 60 days prior to the annual meeting of the Scientific Committee. BFIAs shall be prepared using a scale no coarser than the Fishery Management Area. These submissions shall also include the mitigation measures proposed by the Member or CNCP to prevent such impacts.
- b) The Scientific Committee shall undertake a review of the proposed assessment and provide advice to the Commission on:

¹ ~~Recognising that the minimum level of protection is an interim approach recommended in COMM11-Doc07, and notwithstanding paragraph 18, the Commission may, in 2024 or any year thereafter, adopt a different level of protection to prevent significant adverse impacts on VMEs. The Commission will receive further advice on thresholds for SAIs, multi-spatial scale risk assessments to assess encounters, and how to reduce uncertainties in these risk assessments based on the fulfilment of the work set out in the Scientific Committee's multi-annual work plan including to assess the feasibility of developing catchability estimates for VME indicator taxa. The Commission will consider implementing a higher (appropriate/optimal) level of protection where supported by the best available scientific information or if uncertainty about the occurrence and ranges of distribution of VME indicator taxa supports changing the level of protection consistent with the precautionary approach.~~

² "Other species of concern" means the list contained in Annex 14 of CMM 02-2022 (Data standards).

³ As approved by the seventh session of the Scientific Committee 2019, available at: <https://www.sprfmo.int/assets/Fisheries/Science/SPRFMO-Bottom-Fishery-Impact-Assessment-Standard-2019.pdf>



- i. whether the proposed bottom fishing would contribute to having significant adverse impacts on deep sea fish stocks for which no stock assessment has been completed, bycatch species and/or VMEs and, if so,
 - ii. whether any proposed or additional mitigation measures would prevent such impacts.
- c) In its review of the proposed assessment, the Scientific Committee may use additional information available to it, including information from other fisheries in the region or similar fisheries elsewhere. The Scientific Committee is not obliged to consider, or provide advice on, proposed assessments provided after the deadline for submission of proposed assessments contained in paragraph 21(a).
- d) On the basis of the Scientific Committee's review of the submitted assessment, taking into account any recommendations and advice of the Scientific Committee and in line with the precautionary approach, the Commission shall consider:
 - i. ~~consider~~ whether, and if applicable the extent to which, bottom fishing in the Management Area(s) for which the proposed assessment was conducted should be authorised;
 - ii. which, if any, additional measures (which may include closures) to those proposed are required pursuant to Article 20 to prevent significant adverse impacts on VMEs;
 - iii. which, if any, additional precautionary measures are required where it cannot adequately be determined whether VMEs are present or whether fishing could cause significant adverse impacts on VMEs; and
 - ~~iii-iv.~~ data availability, especially with regard to baseline data and the spatial distribution and connectivity of vulnerable marine ecosystems, including their associated and dependent species; and
 - ~~iv-v.~~ in relation to an application to target a species for which no total catch limit exists, ~~consider~~ an exemption for such a Member or CNCP to paragraph 10 of CMM 03a-2021 (Deepwater Species), bearing in mind the need to be precautionary.

~~21-22.~~ Members and CNCPs whose bottom fishing proposal has been authorised by the Commission under paragraph 21(d)(i) shall ensure that a proposed assessment meeting the requirements contained in paragraph 21(a) is submitted to the Scientific Committee and Commission at least every 3 years, and also when a substantial change in the fishery has occurred such that it is likely that the risk or impact of the fishery may have changed.

~~22-23.~~ The Secretariat shall make publicly available on the SPRFMO website all assessments submitted in accordance with paragraph 21(a) within three days of receipt and shall invite public comment for 30 days from the date of publication on such assessment. The Secretariat shall also make the Scientific Committee's review of such assessments public in accordance with its usual procedures,

~~23-24.~~ The Scientific Committee shall review, and update if required, the SPRFMO BFIAS every 5 years, starting in 2025, to ensure that it reflects, as appropriate, best practice.

Encounters with Potential VMEs

~~24-25.~~ For the purposes of this section of the CMM, the term "VME indicator taxa" means any benthic organism listed in Annex 5.

~~25-26.~~ For the purposes of this section of the CMM, the term "Encounter" means catch of a VME indicator taxa at or above threshold levels as set out in paragraph 27.

~~26-27.~~ Where VME indicator taxa are encountered in any one tow at or above the weight threshold in Annex 6A, or three or more different VME indicator taxa at or above the weight thresholds in Annex 6B, Members and CNCPs shall require any vessel flying their flag to:

- a) cease bottom fishing immediately within an encounter area of one (1) nautical mile either side of the



trawl track extended by one (1) nautical mile at each end;

- b) report the encounter immediately to the Member or CNCP whose flag the vessel is flying and the Secretariat, in accordance with the Guidelines for the preparation and submission of notifications of encounters with potential VMEs, contained in Annex 7.

~~27-28.~~ In the event of an encounter, Members and CNCPs shall cooperate to the extent possible with the Secretariat and other Members or CNCPs engaged in bottom fishing to exchange such data and information as may be relevant to the Scientific Committee's consideration of the encounter area.

~~28-29.~~ On receipt of a notification under paragraph 27(b) the Secretariat shall:

- a) record the location of the encounter area;
- b) within three (3) working days of receipt, notify all Members and CNCPs that bottom fishing is suspended in the encounter area in paragraph 27(a) and-
- (c) Publicise the encounter area on the internal part of the SPRFMO website for the duration of the suspension;

~~29-30.~~ Members and CNCPs shall ensure that vessels flying their flags do not bottom fish in an encounter area notified under paragraph 29(b) unless and until such time as the Commission determines management actions under paragraph 33 that would permit the resumption of bottom fishing in the area.

~~30-31.~~ Members and CNCPs shall submit to the Scientific Committee⁴ a detailed description of each encounter by vessels flying their flag that resulted in a temporary suspension pursuant to paragraph 27, a comparison of the encounter with the existing model prediction, and suggested management actions to prevent significant adverse impacts on VMEs⁵. Members should provide as much detail as possible to verify whether a VME is likely to be present at the encounter area -and/or the surrounding area, whether a significant adverse impact has occurred, and the risk of a significant adverse impact occurring in the future.

~~31-32.~~ The Scientific Committee, at its next annual meeting, shall review all encounters reported pursuant to paragraph 27(b) once the relevant Member or CNCP has provided its review pursuant to paragraph 31, including considering the extent to which encounters are consistent or inconsistent with VME habitat suitability model predictions, and provide advice on management actions proposed by the relevant Member or CNCP under paragraph 31 and any alternate or additional other management actions the Scientific Committee considers appropriate. The Scientific Committee shall ~~This review should include consideration of:~~

a) Apply the Convention, including Article 3(2)(a)

a)b) Consider the detailed analyses provided by a Member or CNCP pursuant to paragraph 31 including;

- i. historical fishing events within 5nm of the encounter tow, in particular, any previous encounters, and all information on benthic bycatch;
- ii. model predictions for all VME indicator taxa;
- iii. details of the relevant fishing activity, including the bioregion; and
- iv. any other information the Scientific Committee considers relevant.

c) review the adequacy of the information submitted pursuant to paragraph 31, including the robustness

⁴ Reviews shall, to the extent possible, be undertaken promptly and be submitted to the next Scientific Committee meeting by the Member or CNCP whose flag the vessel was flying at the time of the encounter. Where a Member or CNCP does not have the capacity to undertake the review within that timeframe, including because: the encounter has occurred in the weeks immediately prior to the next annual Scientific Committee meeting; or a Member or CNCP other than the flag State of the vessel which reported the encounter agrees to take responsibility for the review; or if the encounter is the subject of a domestic investigation or legal process which limits the disclosure of information relevant to the assessment, then the relevant Member(s) and/or CNCP(s) shall inform the Scientific Committee of the circumstances and, as the case requires, an indication of when the review will be provided to the Scientific Committee.

⁵ Relevant outputs from habitat suitability models (e.g. shapefiles of predicted distributions) will be made available to Members.



of the analysis;

- d) apply the FAO Deep-Sea Fisheries Guidelines, including to use the full set of criteria contained therein to identify where VMEs occur or are likely to occur, as well as for assessing significant adverse impacts on such ecosystems, including their associated and dependent species;
- e) consider whether an area or areas should be closed to prevent significant adverse impacts on VMEs;
- f) ensure its advice and recommendations arising from the review are provided with the objective of avoiding significant adverse impacts on VMEs.

32bis Notwithstanding paragraph 32, the Scientific Committee may defer consideration of an encounter if:

- a) there is inadequate information to provide meaningful advice and recommendations; and/or
- b) The relevant Member of CNCP has notified the Scientific Committee of a delay pursuant to paragraph 31; or
- c) There has been insufficient time for the flag State to present the relevant information within the normal timeframes for the submission of working papers to the Scientific Committee.

~~32-33.~~ Taking into account the Scientific Committee's review of each encounter and its advice on management actions, At its next annual meeting, the Commission shall determine, for each encounter, management actions to prevent significant adverse impacts on VMEs for each encounter area, which may include: the closing of some areas to some or all bottom fishing gear, temporal restrictions, spatial restriction, reopening areas. Management actions determined by the Commission will apply as appropriate, unless otherwise determined, from the conclusion of the relevant Commission meeting. The Commission shall base its decision on the Scientific Committee's advice; and be satisfied that its decision is consistent with the requirements of the Convention, including Article 3(2)(a).

33bis For the avoidance of doubt, each VME encounter shall be assessed against the requirements of the relevant CMM in effect at the time of the encounter. However, this shall not preclude the Scientific Committee and/or the Commission from taking into account the best available science in relation to the encounter in discharging their respective functions within the encounter review process.

General provisions in relation to the scientific review of information

~~33-34.~~ Members and CNCPs shall submit to the Secretariat annual reports of all benthic bycatch data from vessels flying their flag, consistent with CMM 02-2022 (Data Standards), as part of their annual reports to the Scientific Committee, to enable an ongoing review of the effectiveness of the spatial management arrangements. By no later than its annual meeting in 2021, the Scientific Committee shall develop a review process to provide for ongoing monitoring and feedback.

~~34-35.~~ [At its annual meeting in 2021, the Scientific Committee shall review and provide advice on the effectiveness of the applied management measures, including:

- a) VME indicator thresholds;
- b) the Management Areas;
- c) the number of encounters;
- d) the relationship between benthic bycatch from fishing vessels (including encounter events) and the habitat suitability models;
- e) the relationship of benthic bycatch to estimates of abundance of VME taxa, where information is available;



- ~~f) the appropriateness of the management approach (e.g. scale);~~
- ~~g) additional relevant VME indicator taxa or species that have not been modelled, assessed or for which thresholds have not been established;~~
- ~~h) refinement of the encounter protocol;~~
- ~~i) measures to prevent the catch of and/or impacts on rare species; and~~
- ~~j) anything else the SC considers relevant]~~

~~to ensure the measure is achieving its objective and the objectives of the Convention.~~

~~36.~~ The Scientific Committee shall review all available data and provide advice on the ongoing effectiveness of the management measures in this CMM to ensure the measure meets its objective and the objectives of the Convention and implements the relevant United Nations General Assembly Resolutions⁶.

~~36bis~~ From 2023, the Scientific Committee shall adopt the Fishery Management Area as the appropriate scale of management for assessing the performance of the VME spatial management scenarios that underpin this CMM.

~~36ter~~ At its annual meeting in 2023, the Scientific Committee shall develop a biologically-relevant multi spatial-scale risk-based approach to assess encounters with VME indicator taxa. The Scientific Committee shall take into account the Convention and the FAO DeepSea Fisheries Guidelines and may consider a broad range of scales in the context of the best available science on, *inter alia*, the distribution of VME across spatial scales.

~~36quater~~ By no later than its 12th meeting, the Scientific Committee shall develop an Encounter Review Standard taking into account the guidance contained in paragraph [24(e)] of Bottom Fishing Review (COMM11-Doc07 – to be linked later).

~~35-37.~~ Nothing in this CMM shall prevent Members or CNCPs from taking additional measures compatible with this measure in relation to encounters with VME indicator taxa below the threshold in paragraph 27.

Monitoring and Control of Bottom Fishing Activities

~~36-38.~~ Members and CNCPs shall:

- a) ensure that vessels that fly their flag and participate in bottom fishing:
 - are equipped and configured so that they can comply with all relevant SPRFMO CMMs;
 - act in accordance with CMM 06-2020 (Commission VMS), polling once every 30 minutes for the duration of the trip;⁷
 - report tow or set start and end position to 1/100th degree resolution - decimal format, notwithstanding the Annexes of CMM 02-2022 (Data standards).
- b) only authorise vessels flying their flag to fish in the Convention Area where they are able to exercise their responsibilities as a flag State under the Convention and all relevant SPRFMO CMMs;
- c) ensure that they meet the level of observer coverage specified in this CMM to collect data in accordance with

⁶ UNGA Resolutions 61/105, 64/72, 66/68, 71/123, 72/72, 77/118 and any subsequent resolutions adopted by the United Nations General Assembly.

⁷ This obligation shall apply to all trips in which the vessel departs port with the intention of entering the Convention Area. The term “duration of the trip” commences from the time the vessel departs from port, includes all times that it is in the Convention Area and concludes once it enters port.



this and other CMMs;

- d) prohibit vessels flying their flag from participating in bottom fishing if the agreed minimum required data submissions have not been provided in accordance with the agreed subset of the vessel identification data requirements;
- e) in respect of each vessel that flies their flag and participates in bottom fishing, submit VMS reports to the Secretariat in accordance with CMM 06-2020 (Commission VMS).

Observer Coverage

~~37-39.~~ All Members and CNCPs participating in bottom fishing pursuant to this CMM shall ensure scientific observer coverage of trips for vessels flying their flag consistent with the minimum observer coverage levels set out in Annex 8 and shall ensure that such observers collect and report data as described in CMM 02-2022 (Data Standards).

~~38-40.~~ The Commission shall review the appropriateness of the minimum observer coverage levels specified in Annex 8 of this CMM at its annual meeting in 2024, taking into account the bottom fishing impact assessment and the SC advice and recommendations therein.

~~39-41.~~ Nothing in this measure shall affect the rights of Members and CNCPs to apply higher levels of observer coverage than set out in Annex 8, in accordance with their domestic requirements.

Electronic Monitoring

~~42.~~ Members and CNCPs may also require vessels flying their flag to have an electronic monitoring system installed and operating that is capable of recording (including visually) and storing recordings of fishing events for data collection and verification purposes.

Register of Known VMEs

~~42bis~~ Where the Commission has identified areas as vulnerable marine ecosystems, the Commission shall:

- a) Register the VME in Annex 9 of this CMM; and
- b) Ensure the Management Area boundaries established in paragraph 13 and Annex 4 of this CMM are updated to exclude the VME from areas open to fishing.

Review

~~43.~~ The Commission shall review this CMM **in 2023 and** at least every 3 years **thereafter**, and in doing so, take appropriate action to meet the objectives of this CMM and the Convention, in view of the advice and recommendations of the Scientific Committee. Each such review shall consider the protocol for encounters with VME indicator taxa and the appropriateness of applied management measures. The Commission shall, **for each review,** ~~also~~ take into account relevant technical information from ~~the~~ United Nations bottom fishing review **scheduled for 2022 processes**, any related resolutions adopted by the United Nations General Assembly (UNGA), and the United Nations Food and Agriculture Organization's International Guidelines for the Management of Deep-Sea Fisheries in the High Seas. The Commission shall make any modification to the CMM as is required to meet its objective.

~~43bis~~ Notwithstanding paragraph 43, ~~the Commission shall also review this CMM in 2024, focusing on any new information available from UNGA's review.~~

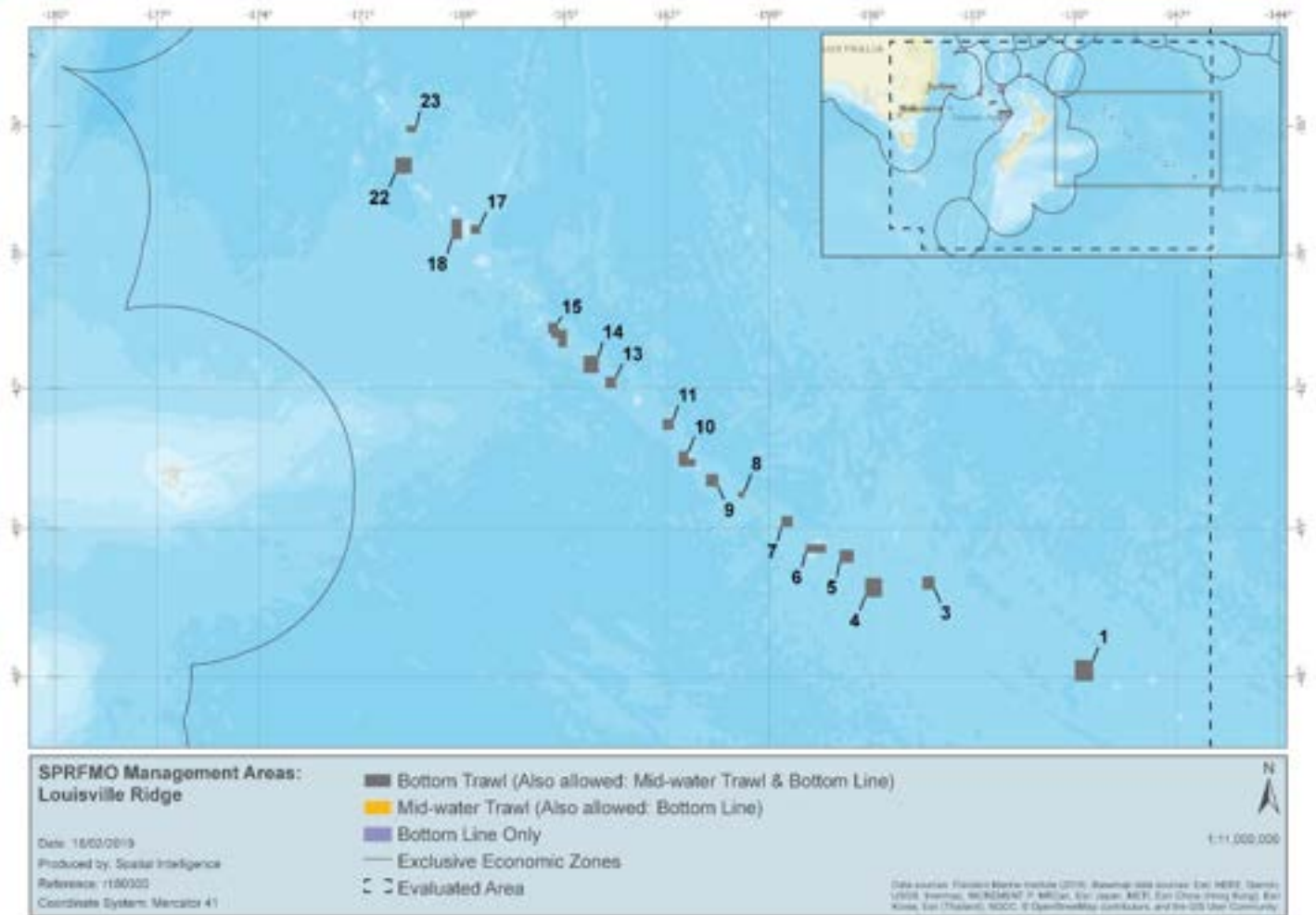
~~44.~~ An intersessional working group shall review this CMM in accordance with the Intersessional Work Plan for



Reviewing CMM 03-2022 and present the results of its work to the Commission in 2023.

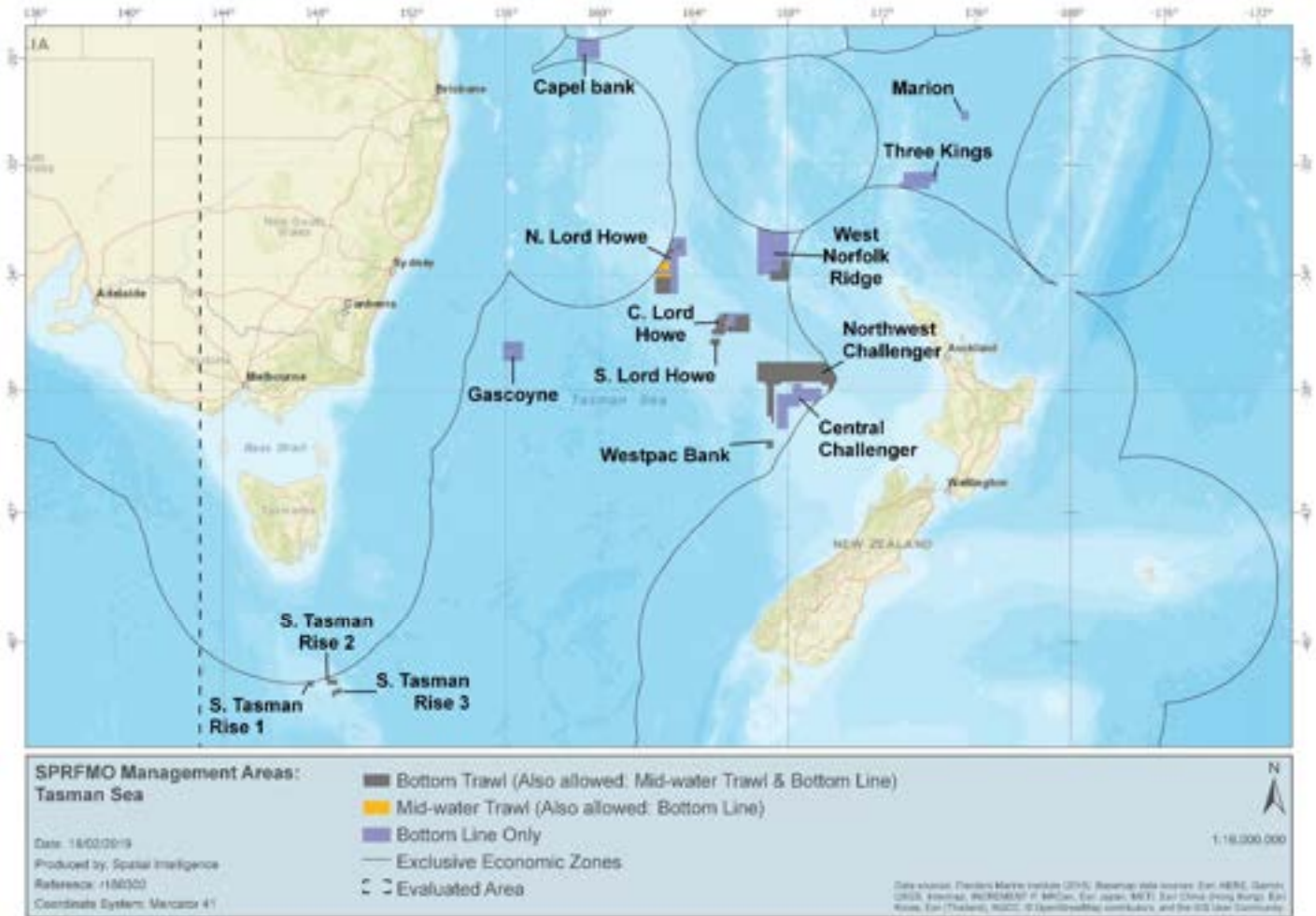


ANNEX 2: SPRFMO Bottom Fishing Management Areas for the Louisville Ridge





ANNEX 3: SPRFMO Bottom Fishing Management Areas for the Tasman Sea





ANNEX 4: Coordinates for Each Bottom Fishing Management Area⁸

a) Bottom Trawl Management Area coordinates

Block Name	Locality/MA	Method	Latitude	Longitude	EEZ Direction
<u>C.S.</u> Lord Howe – West	C. Lord Howe	Bottom trawl	35°21.0 00'S	165°13.5 53'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°21.0 00'S	165°24.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°36.0 00'S	165°24.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°36.0 00'S	165°18.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	36°06.0 00'S	165°18.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	36°06.0 00'S	164°46.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°54.0 00'S	164°46.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°54.0 00'S	164°54.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°31.0 00'S	165°54.0 00'E	
C. Lord Howe – West S. Lord Howe – West S. Lord Howe – West S. Lord Howe – West	C. Lord Howe	Bottom trawl	35°31.0 00'S	165°13.5 50'E	
<u>C.S.S.</u> Lord Howe – East	C. Lord Howe	Bottom trawl	35°26.0 00'S	165°44.0 00'E	
C. Lord Howe – East S. Lord Howe – East S. Lord Howe – East S. Lord Howe – East	C. Lord Howe	Bottom trawl	35°26.0 00'S	166°21.9 15'E	
<u>C.</u> Lord Howe – East S. Lord Howe – East	C. Lord Howe	Bottom trawl	35°47.0 00'S	165°26.0 00'E	
C. Lord Howe – East S. Lord Howe – East S. Lord Howe – East S. Lord Howe – East	C. Lord Howe	Bottom trawl	35°47.0 00'S	165°44.0 00'E	
C. Lord Howe – East S. Lord Howe – East S. Lord Howe – East S. Lord Howe – East	C. Lord Howe	Bottom trawl	36°00.5 00'S	165°26.0 00'E	

⁸ For the avoidance of doubt, no Management Area shall include any area under within the exclusive economic zone of a Member, CNCP or non-Member.



Block Name	Locality/EZA	Method	Latitude	Longitude	EEZ Direction
C. Lord Howe – East S. Lord Howe – East S. Lord Howe – East	C. Lord Howe	Bottom trawl	36°00.500'S	166°21.915'E	
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Bottom trawl</u>	<u>36°13.460'S</u>	<u>164°40.830'E</u>	<u>S. Lord Howe</u>
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Bottom trawl</u>	<u>36°13.460'S</u>	<u>165°06.050'E</u>	<u>S. Lord Howe</u>
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Bottom trawl</u>	<u>36°26.800'S</u>	<u>164°40.830'E</u>	<u>S. Lord Howe</u>
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Bottom trawl</u>	<u>36°26.800'S</u>	<u>165°06.050'E</u>	<u>S. Lord Howe</u>
01	<u>South Louisville</u>	Bottom trawl	47°40.000'S	149°27.000'W	
01	<u>South Louisville</u>	Bottom trawl	47°40.000'S	150°00.000'W	
01	<u>South Louisville</u>	Bottom trawl	48°05.000'S	149°27.000'W	
01	<u>South Louisville</u>	Bottom trawl	48°05.000'S	150°00.000'W	
03	<u>South Louisville</u>	Bottom trawl	45°59.000'S	154°07.224'W	
03	<u>South Louisville</u>	Bottom trawl	45°59.000'S	154°28.653'W	
03	<u>South Louisville</u>	Bottom trawl	46°15.000'S	154°07.224'W	
03	<u>South Louisville</u>	Bottom trawl	46°15.000'S	154°28.653'W	
04	<u>South Louisville</u>	Bottom trawl	46°01.000'S	155°40.000'W	
04	<u>South Louisville</u>	Bottom trawl	46°01.000'S	156°10.000'W	
04	<u>South Louisville</u>	Bottom trawl	46°24.000'S	155°40.000'W	
04	<u>South Louisville</u>	Bottom trawl	46°24.000'S	156°10.000'W	
05	<u>South Louisville</u>	Bottom trawl	45°26.000'S	156°30.000'W	
05	<u>South Louisville</u>	Bottom trawl	45°26.000'S	156°55.000'W	



Block Name	Locality/EJA	Method	Latitude	Longitude	EEZ Direction
05	<u>South</u> Louisville	Bottom trawl	45°42.0 00'S	156°30.0 00'W	
05	<u>South</u> Louisville	Bottom trawl	45°42.0 00'S	156°55.0 00'W	
06	<u>South</u> Louisville	Bottom trawl	45°19.5 00'S	157°19.0 00'W	
06	<u>South</u> Louisville	Bottom trawl	45°19.5 00'S	157°55.0 00'W	
06	<u>South</u> Louisville	Bottom trawl	45°30.0 00'S	157°19.0 00'W	
06	<u>South</u> Louisville	Bottom trawl	45°30.0 00'S	157°55.0 00'W	
07	<u>South</u> Louisville	Bottom trawl	44°43.9 50'S	158°18.0 00'W	
07	<u>South</u> Louisville	Bottom trawl	44°43.9 50'S	158°38.0 00'W	
07	<u>South</u> Louisville	Bottom trawl	44°57.9 50'S	158°18.0 00'W	
07	<u>South</u> Louisville	Bottom trawl	44°57.9 50'S	158°38.0 00'W	
08	<u>South</u> Louisville	Bottom trawl	44°13.0 00'S	159°43.0 00'W	
08	<u>South</u> Louisville	Bottom trawl	44°13.0 00'S	159°54.0 00'W	
08	<u>South</u> Louisville	Bottom trawl	44°21.0 00'S	159°43.0 00'W	
08	<u>South</u> Louisville	Bottom trawl	44°21.0 00'S	159°54.0 00'W	
09	<u>South</u> Louisville	Bottom trawl	43°51.1 83'S	160°29.2 35'W	
09	<u>South</u> Louisville	Bottom trawl	43°51.1 83'S	160°50.8 20'W	
09	<u>South</u> Louisville	Bottom trawl	44°07.0 00'S	160°29.2 35'W	
09	<u>South</u> Louisville	Bottom trawl	44°07.0 00'S	160°50.8 20'W	
10	<u>South</u> Louisville	Bottom trawl	43°22.0 00'S	161°21.7 70'W	



Block Name	Locality/EJA	Method	Latitude	Longitude	EEZ Direction
10	South Louisville	Bottom trawl	43°22.0 00'S	161°39.0 00'W	
10	South Louisville	Bottom trawl	43°31.3 70'S	161°10.1 70'W	
10	South Louisville	Bottom trawl	43°31.3 70'S	161°21.7 70'W	
10	South Louisville	Bottom trawl	43°41.4 40'S	161°10.1 70'W	
10	South Louisville	Bottom trawl	43°41.4 40'S	161°39.0 00'W	
11	South Louisville	Bottom trawl	42°40.0 00'S	161°48.0 00'W	
11	South Louisville	Bottom trawl	42°40.0 00'S	162°07.0 00'W	
11	South Louisville	Bottom trawl	42°54.5 00'S	161°48.0 00'W	
11	South Louisville	Bottom trawl	42°54.5 00'S	162°07.0 00'W	
13	Central Louisville	Bottom trawl	41°45.0 00'S	163°29.5 00'W	
13	Central LouisvilleLouisville	Bottom trawl	41°45.0 00'S	163°49.0 00'W	
13	Central LouisvilleLouisville	Bottom trawl	42°00.0 00'S	163°29.5 00'W	
13	Central LouisvilleLouisville	Bottom trawl	42°00.0 00'S	163°49.0 00'W	
14	Central LouisvilleLouisville	Bottom trawl	41°17.0 00'S	164°00.0 00'W	
14	Central LouisvilleLouisville	Bottom trawl	41°17.0 00'S	164°27.0 00'W	
14	Central LouisvilleLouisville	Bottom trawl	41°40.0 00'S	164°00.0 00'W	
14	Central LouisvilleLouisville	Bottom trawl	41°40.0 00'S	164°27.0 00'W	
15	Central LouisvilleLouisville	Bottom trawl	40°32.8 97'S	165°12.0 00'W	
15	Central LouisvilleLouisville	Bottom trawl	40°32.8 97'S	165°30.0 00'W	



Block Name	Locality/EJA	Method	Latitude	Longitude	EEZ Direction
15	<u>Central Louisville</u> Louisville	Bottom trawl	40°42.0 00'S	164°56.4 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	40°42.0 00'S	165°12.0 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	40°48.0 00'S	165°24.0 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	40°48.0 00'S	165°30.0 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	40°54.0 00'S	165°12.0 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	40°54.0 00'S	165°24.0 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	41°06.0 00'S	164°56.4 00'W	
15	<u>Central Louisville</u> Louisville	Bottom trawl	41°06.0 00'S	165°12.0 00'W	
17	<u>North Louisville</u>	Bottom trawl	38°20.0 13'S	167°29.0 00'W	
17	<u>North Louisville</u> Louisville	Bottom trawl	38°20.0 13'S	167°47.0 67'W	
17	<u>North Louisville</u> Louisville	Bottom trawl	38°32.0 00'S	167°29.0 00'W	
17	<u>North Louisville</u> Louisville	Bottom trawl	38°32.0 00'S	167°47.0 67'W	
18	<u>North Louisville</u> Louisville	Bottom trawl	38°11.0 13'S	168°01.7 85'W	
18	<u>North Louisville</u> Louisville	Bottom trawl	38°11.0 13'S	168°20.0 00'W	
18	<u>North Louisville</u> Louisville	Bottom trawl	38°40.0 00'S	168°01.7 85'W	
18	<u>North Louisville</u> Louisville	Bottom trawl	38°40.0 00'S	168°20.0 00'W	
22	<u>North Louisville</u> Louisville	Bottom trawl	36°45.0 00'S	169°30.0 00'W	
	<u>North Louisville</u>				
22	<u>North Louisville</u> Louisville	Bottom trawl	36°45.0 00'S	170°00.0 00'W	



Block Name	Locality/ETA	Method	Latitude	Longitude	EEZ Direction
22	<u>North Louisville</u> Louisville	Bottom trawl	37°08.0 00'S	169°30.0 00'W	
22	<u>North Louisville</u> Louisville	Bottom trawl	37°08.0 00'S	170°00.0 00'W	
23	<u>North Louisville</u> Louisville	Bottom trawl	36°00.0 00'S	169°22.0 00'W	
23	<u>North Louisville</u> Louisville	Bottom trawl	36°00.0 00'S	169°40.0 00'W	
23	<u>North Louisville</u> Louisville	Bottom trawl	36°10.0 00'S	169°22.0 00'W	
23	<u>North Louisville</u> Louisville	Bottom trawl	36°10.0 00'S	169°40.0 00'W	
N. Lord Howe - South	N. Lord Howe <u>Rise</u>	Bottom trawl	34°04.0 35'S	162°20.0 00'E	
N. Lord Howe - South	N. Lord Howe <u>Rise</u>	Bottom trawl	34°04.0 35'S	163°00.0 00'E	
N. Lord Howe - South	N. Lord Howe <u>Rise</u>	Bottom trawl	34°40.0 00'S	162°20.0 00'E	
N. Lord Howe - South	N. Lord Howe <u>Rise</u>	Bottom trawl	34°40.0 00'S	163°00.0 00'E	
N. Lord Howe - East	N. Lord Howe <u>Rise</u>	Bottom trawl	32°54.6 50'S	163°16.6 15'E	
N. Lord Howe - East	N. Lord Howe <u>Rise</u>	Bottom trawl	32°54.6 50'S	163°26.3 80'E	
N. Lord Howe - East	N. Lord Howe <u>Rise</u>	Bottom trawl	33°04.4 00'S	163°16.6 15'E	
N. Lord Howe - East	N. Lord Howe <u>Rise</u>	Bottom trawl	33°04.4 00'S	163°26.3 80'E	
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°16.4 00'S	162°52.5 40'E	
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°09.2 96'S	162°52.5 40'E	North-east along the Australian EEZ
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°04.4 00'S	162°54.9 41'E	



Block Name	Locality/EZ/A	Method	Latitude	Longitude	EEZ Direction
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°04.4 00'S	163°10.5 40'E	
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°10.4 00'S	163°10.5 40'E	
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°10.4 00'S	163°04.5 40'E	
N. Lord Howe - West	N. Lord Howe <u>Rise</u>	Bottom trawl	33°16.4 00'S	163°04.5 40'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	38°00.0 00'S	169°47.8 48'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	38°00.0 00'S	169°42.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°48.0 00'S	169°42.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°48.0 00'S	169°24.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°42.0 00'S	169°24.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°42.0 00'S	167°42.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°48.0 00'S	167°42.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°48.0 00'S	167°24.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	39°06.0 00'S	167°24.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	39°06.0 00'S	167°18.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	38°52.0 00'S	167°18.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	38°52.0 00'S	167°06.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°48.0 00'S	167°06.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°48.0 00'S	167°00.0 00'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°42.0 00'S	167°00.0 00'E	



Block Name	Locality/EZA	Method	Latitude	Longitude	EEZ Direction
Northwest Challenger	Northwest Challenger	Bottom trawl	37°42.000'S	166°40.000'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°01.333'S	166°40.000'E	
Northwest Challenger	Northwest Challenger	Bottom trawl	37°01.333'S	169°36.706'E	South-east along the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Bottom trawl	37°29.902'S	170°00.000'E	Due south to a point on the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Bottom trawl	37°41.589'S	170°00.000'E	South-west along the New Zealand EEZ
Box 1 S. Tasman Rise	S. Tasman Rise 1 S. Tasman Rise 1	Bottom trawl	47°08.280'S	147°50.200'E	Start on the Australian EEZ
S. Tasman Rise 1 Box 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom trawl	47°17.370'S	147°50.200'E	
S. Tasman Rise 1 Box 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom trawl	47°17.370'S	147°32.300'E	
S. Tasman Rise 1 Box 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom trawl	47°10.197'S	147°32.300'E	East along the Australian EEZ to the start point
S. Tasman Rise 1 Box 1 Box 2	S. Tasman Rise 1 S. Tasman Rise 2 S. Tasman Rise 2	Bottom trawl	47°05.160'S	148°24.165'E	
S. Tasman Rise 2 Box 2 Box 2	S. Tasman Rise 2 S. Tasman Rise 2 S. Tasman Rise 2	Bottom trawl	47°05.160'S	148°50.670'E	



Block Name	Locality/ID	Method	Latitude	Longitude	EEZ Direction
S. Tasman Rise 2 Box 2	S. Tasman Rise S. Tasman Rise 2 S. Tasman Rise 2	Bottom trawl	47°13.780'S	148°24.165'E	
S. Tasman Rise 2 Box 2	S. Tasman Rise S. Tasman Rise 2 S. Tasman Rise 2	Bottom trawl	47°13.780'S	148°50.670'E	
S. Tasman Rise 2 Box 2	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°21.000'S	148°45.610'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°21.000'S	149°03.200'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°24.015'S	148°37.235'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°24.015'S	148°45.610'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°24.800'S	149°03.200'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°30.320'S	148°44.390'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°30.320'S	148°57.650'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°35.205'S	148°37.235'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise S. Tasman Rise 3 S. Tasman Rise 3	Bottom trawl	47°35.205'S	148°44.390'E	
S. Tasman Rise 3 Box 3 S. Lord Howe - West	S. Lord Howe S. Lord Howe	Bottom trawl	35°31.000'S	164°54.000'E	
S. Lord Howe - West S. Lord Howe - South	S. Lord Howe S. Lord Howe	Bottom trawl	36°13.460'S	164°40.830'E	
S. Lord Howe - South S. Lord Howe - South	S. Lord Howe S. Lord Howe	Bottom trawl	36°13.460'S	165°06.050'E	
S. Lord Howe - South S. Lord Howe - South	S. Lord Howe S. Lord Howe	Bottom trawl	36°26.800'S	164°40.830'E	
S. Lord Howe - South S. Lord Howe - South	S. Lord Howe S. Lord Howe	Bottom trawl	36°26.800'S	165°06.050'E	
Wanganella	West Norfolk Ridge West Norfolk Ridge	Bottom trawl	33°28.000'S	167°42.000'E	
Wanganella	West Norfolk Ridge West Norfolk Ridge	Bottom trawl	33°28.000'S	168°00.000'E	
Wanganella	West Norfolk Ridge West Norfolk Ridge	Bottom trawl	33°52.000'S	167°13.000'E	



Block Name	Locality/FA	Method	Latitude	Longitude	EEZ Direction
Wanganella	<u>West Norfolk Ridge</u> <u>West Norfolk Ridge</u>	Bottom trawl	33°52.0 00'S	167°42.0 00'E	
Wanganella	<u>West Norfolk Ridge</u> <u>West Norfolk Ridge</u>	Bottom trawl	34°12.0 00'S	167°13.0 00'E	
Wanganella	<u>West Norfolk Ridge</u> <u>West Norfolk Ridge</u>	Bottom trawl	34°12.0 00'S	168°00.0 00'E	
Westpac Bank	Westpac Bank	Bottom trawl	39°39.0 00'S	167°05.0 00'E	
Westpac Bank	Westpac Bank	Bottom trawl	39°39.0 00'S	167°21.0 90'E	
Westpac Bank	Westpac Bank	Bottom trawl	39°55.0 00'S	167°05.0 00'E	
Westpac Bank	Westpac Bank	Bottom trawl	39°55.0 00'S	167°21.0 90'E	



b) Mid-water Trawl Management Area coordinates

Block name	Locality	Method	Latitude	Longitude	EEZ Direction
C.S. Lord Howe - EastS. Lord Howe - East	C. Lord Howe	Mid-water trawl	35°26.000'S	165°44.000'E	
C. Lord Howe - EastS. Lord Howe - EastS. Lord Howe - East	C. Lord Howe	Mid-water trawl	35°26.000'S	166°21.915'E	
C. Lord Howe - EastS. Lord Howe - EastS. Lord Howe - East	C. Lord Howe	Mid-water trawl	35°47.000'S	165°26.000'E	
C. Lord Howe - EastS. Lord Howe - EastS. Lord Howe - East	C. Lord Howe	Mid-water trawl	35°47.000'S	165°44.000'E	
C. Lord Howe - EastS. Lord Howe - EastS. Lord Howe - East	C. Lord Howe	Mid-water trawl	36°00.500'S	165°26.000'E	
C. Lord Howe - EastS. Lord Howe - EastS. Lord Howe - East	C. Lord Howe	Mid-water trawl	36°00.500'S	166°21.915'E	
C. Lord Howe - WestS. Lord Howe - WestS. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°21.000'S	165°13.550'E	
C. Lord Howe - WestS. Lord Howe - WestS. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°21.000'S	165°24.000'E	
C. Lord Howe - WestS. Lord Howe - WestS. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°31.000'S	164°54.000'E	
C. Lord Howe - WestS. Lord Howe - WestS. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°31.000'S	165°13.550'E	
C. Lord Howe - WestS. Lord Howe - WestS. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°40.383'S	165°18.000'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
C. Lord Howe - West S. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°40.383'S	165°24.000'E	
C. Lord Howe - West S. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°54.000'S	164°46.000'E	
C. Lord Howe - West S. Lord Howe - West	C. Lord Howe	Mid-water trawl	35°54.000'S	164°54.000'E	
C. Lord Howe - West S. Lord Howe - West	C. Lord Howe	Mid-water trawl	36°06.000'S	164°46.000'E	
C. Lord Howe - West S. Lord Howe - West	C. Lord Howe	Mid-water trawl	36°06.000'S	165°18.000'E	
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°13.460'S</u>	<u>164°40.830'E</u>	<u>S. Lord Howe</u>
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°13.460'S</u>	<u>165°06.050'E</u>	<u>S. Lord Howe</u>
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°26.800'S</u>	<u>164°40.830'E</u>	<u>S. Lord Howe</u>
<u>S. Lord Howe</u>	<u>C. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°26.800'S</u>	<u>165°06.050'E</u>	<u>S. Lord Howe</u>
1	<u>South Louisville Ridge</u>	Mid-water trawl	47°40.000'S	149°27.000'W	
1	Louisville Ridge	Mid-water trawl	47°40.000'S	150°00.000'W	
1	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Mid-water trawl	48°05.000'S	149°27.000'W	
1	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Mid-water trawl	48°05.000'S	150°00.000'W	
3	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Mid-water trawl	45°59.000'S	154°07.224'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
3	South Louisville Louisville Ridge	Mid-water trawl	45°59.000'S	154°28.653'W	
3	South Louisville Louisville Ridge	Mid-water trawl	46°15.000'S	154°07.224'W	
3	South Louisville Louisville Ridge	Mid-water trawl	46°15.000'S	154°28.653'W	
4	South Louisville Louisville Ridge	Mid-water trawl	46°01.000'S	155°40.000'W	
4	South Louisville Louisville Ridge	Mid-water trawl	46°01.000'S	156°10.000'W	
4	South Louisville Louisville Ridge	Mid-water trawl	46°24.000'S	155°40.000'W	
4	South Louisville Louisville Ridge	Mid-water trawl	46°24.000'S	156°10.000'W	
5	South Louisville Louisville Ridge	Mid-water trawl	45°26.000'S	156°30.000'W	
5	South Louisville Louisville Ridge	Mid-water trawl	45°26.000'S	156°55.000'W	
5	South Louisville Louisville Ridge	Mid-water trawl	45°42.000'S	156°30.000'W	
5	South Louisville Louisville Ridge	Mid-water trawl	45°42.000'S	156°55.000'W	
6	South Louisville Louisville Ridge	Mid-water trawl	45°19.500'S	157°19.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
6	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	45°19.500'S	157°55.000'W	
6	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	45°30.000'S	157°19.000'W	
6	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	45°30.000'S	157°55.000'W	
7	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°43.950'S	158°18.000'W	
7	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°43.950'S	158°38.000'W	
7	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°57.950'S	158°18.000'W	
7	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°57.950'S	158°38.000'W	
8	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°13.000'S	159°43.000'W	
8	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°13.000'S	159°54.000'W	
8	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°21.000'S	159°43.000'W	
8	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	44°21.000'S	159°54.000'W	
9	<u>South Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	43°51.183'S	160°29.235'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
9	South Louisville Louisville Ridge	Mid-water trawl	43°51.183'S	160°50.820'W	
9	South Louisville Louisville Ridge	Mid-water trawl	44°07.000'S	160°29.235'W	
9	South Louisville Louisville Ridge	Mid-water trawl	44°07.000'S	160°50.820'W	
10	South Louisville Louisville Ridge	Mid-water trawl	43°22.000'S	161°21.770'W	
10	South Louisville Louisville Ridge	Mid-water trawl	43°22.000'S	161°39.000'W	
10	South Louisville Louisville Ridge	Mid-water trawl	43°31.370'S	161°10.170'W	
10	South Louisville Louisville Ridge	Mid-water trawl	43°31.370'S	161°21.770'W	
10	South Louisville Louisville Ridge	Mid-water trawl	43°41.440'S	161°10.170'W	
10	South Louisville Louisville Ridge	Mid-water trawl	43°41.440'S	161°39.000'W	
11	South Louisville Louisville Ridge	Mid-water trawl	42°40.000'S	161°48.000'W	
11	South Louisville Louisville Ridge	Mid-water trawl	42°40.000'S	162°07.000'W	
11	South Louisville Louisville Ridge	Mid-water trawl	42°54.500'S	161°48.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
11	South Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	42°54.500'S	162°07.000'W	
13	Central Louisville Ridge Louisville Ridge	Mid-water trawl	41°45.000'S	163°29.500'W	
13	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	41°45.000'S	163°49.000'W	
13	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	42°00.000'S	163°29.500'W	
13	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	42°00.000'S	163°49.000'W	
14	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	41°17.000'S	164°00.000'W	
14	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	41°17.000'S	164°27.000'W	
14	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	41°40.000'S	164°00.000'W	
14	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	41°40.000'S	164°27.000'W	
15	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	40°32.897'S	165°12.000'W	
15	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	40°32.897'S	165°30.000'W	
15	Central Louisville Louisville Ridge Louisville Ridge	Mid-water trawl	40°42.000'S	164°56.400'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	40°42.000'S	165°12.000'W	
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	40°48.000'S	165°24.000'W	
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	40°48.000'S	165°30.000'W	
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	40°54.000'S	165°12.000'W	
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	40°54.000'S	165°24.000'W	
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	41°06.000'S	164°56.400'W	
15	<u>Central Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	41°06.000'S	165°12.000'W	
17	<u>North Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	38°20.013'S	167°29.000'W	
17	<u>North Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	38°20.013'S	167°47.067'W	
17	<u>North Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	38°32.000'S	167°29.000'W	
17	<u>North Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	38°32.000'S	167°47.067'W	
18	<u>North Louisville</u> <u>Louisville</u> Ridge	Mid-water trawl	38°11.013'S	168°01.785'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
18	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	38°11.013'S	168°20.000'W	
18	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	38°40.000'S	168°01.785'W	
18	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	38°40.000'S	168°20.000'W	
22	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	36°45.000'S	169°30.000'W	
22	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	36°45.000'S	170°00.000'W	
22	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	37°08.000'S	169°30.000'W	
22	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	37°08.000'S	170°00.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	36°00.000'S	169°22.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	36°00.000'S	169°40.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	36°10.000'S	169°22.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville</u> <u>Ridge</u>	Mid-water trawl	36°10.000'S	169°40.000'W	
N. Lord Howe - Central	<u>N. Lord Howe</u> <u>Rise</u> <u>N. Lord Howe</u> <u>N. Lord Howe</u>	Mid-water trawl	33°49.630'S	162°25.670'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
N. Lord Howe - Central	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°48.622'S	162°25.670'E	North-east along the Australian EEZ
N. Lord Howe - Central	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°32.530'S	162°38.450'E	
N. Lord Howe - Central	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°32.530'S	162°57.770'E	
N. Lord Howe - Central	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°49.630'S	162°57.770'E	
N. Lord Howe - East	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	32°54.650'S	163°16.615'E	
N. Lord Howe - East	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	32°54.650'S	163°26.380'E	
N. Lord Howe - East	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°04.400'S	163°16.615'E	
N. Lord Howe - East	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°04.400'S	163°26.380'E	
N. Lord Howe - South	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°58.670'S	162°20.000'E	
N. Lord Howe - South	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°58.670'S	163°00.000'E	
N. Lord Howe - South	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	34°40.000'S	162°20.000'E	
N. Lord Howe - South	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	34°40.000'S	163°00.000'E	
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°16.400'S	162°52.540'E	
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°09.296'S	162°52.540'E	North-east along the Australian EEZ
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°04.400'S	162°54.941'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°04.400'S	163°10.540'E	
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°10.400'S	163°04.540'E	
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°10.400'S	163°10.540'E	
N. Lord Howe - West	<u>N. Lord Howe Rise</u> <u>N. Lord Howe</u>	Mid-water trawl	33°16.400'S	163°04.540'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°01.333'S	166°40.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°01.333'S	169°36.706'E	South-east along the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°29.902'S	170°00.000'E	Due south to a point on the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°41.589'S	170°00.000'E	South-west along the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Mid-water trawl	38°00.000'S	169°47.848'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	38°00.000'S	169°42.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°48.000'S	169°42.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°48.000'S	169°24.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°42.000'S	169°24.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°42.000'S	167°42.004'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°48.000'S	167°42.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°48.000'S	167°24.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	39°06.000'S	167°24.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	39°06.000'S	167°18.000'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
Northwest Challenger	Northwest Challenger	Mid-water trawl	38°52.000'S	167°18.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	38°52.000'S	167°06.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°48.000'S	167°06.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°48.000'S	167°00.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°42.000'S	167°00.000'E	
Northwest Challenger	Northwest Challenger	Mid-water trawl	37°42.000'S	166°40.000'E	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°13.460'S</u>	<u>164°40.830'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°13.460'S</u>	<u>64°40.830'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°13.460'S</u>	<u>165°06.050'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°13.460'S</u>	<u>65°06.050'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°26.800'S</u>	<u>164°40.830'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°26.800'S</u>	<u>64°40.830'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°26.800'S</u>	<u>165°06.050'E</u>	
<u>S. Lord Howe - South</u>	<u>S. Lord Howe</u>	<u>Mid-water trawl</u>	<u>36°26.800'S</u>	<u>65°06.050'E</u>	
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°08.280'S</u>	<u>147°50.200'E</u>	Start on the Australian EEZ
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°08.280'S</u>	<u>47°50.200'E</u>	
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°17.370'S</u>	<u>147°50.200'E</u>	
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°17.370'S</u>	<u>47°50.200'E</u>	
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°17.370'S</u>	<u>147°32.300'E</u>	
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°17.370'S</u>	<u>47°32.300'E</u>	
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°10.197'S</u>	<u>147°32.300'E</u>	East along the Australian EEZ to the start point
<u>S. Tasman Rise 1 Box 1</u>	<u>S. Tasman Rise 1</u>	<u>Mid-water trawl</u>	<u>47°10.197'S</u>	<u>47°32.300'E</u>	
<u>S. Tasman Rise 2 Box 2</u>	<u>S. Tasman Rise 2</u>	<u>Mid-water trawl</u>	<u>47°05.160'S</u>	<u>148°24.165'E</u>	
<u>S. Tasman Rise 2 Box 2</u>	<u>S. Tasman Rise 2</u>	<u>Mid-water trawl</u>	<u>47°05.160'S</u>	<u>48°24.165'E</u>	
<u>S. Tasman Rise 2 Box 2</u>	<u>S. Tasman Rise 2</u>	<u>Mid-water trawl</u>	<u>47°05.160'S</u>	<u>148°50.670'E</u>	
<u>S. Tasman Rise 2 Box 2</u>	<u>S. Tasman Rise 2</u>	<u>Mid-water trawl</u>	<u>47°05.160'S</u>	<u>48°50.670'E</u>	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
<u>S. Tasman Rise 2</u> Box 2	<u>S. Tasman Rise</u> <u>S. Tasman Rise 2</u> S. Tasman Rise 2	<u>Mid-water trawl</u> Mid-water trawl	<u>47°13.780'S</u> 47°13.780'S	<u>148°24.165'E</u> 48°24.165'E	
<u>S. Tasman Rise 2</u> Box 2	<u>S. Tasman Rise</u> <u>S. Tasman Rise 2</u> S. Tasman Rise 2	<u>Mid-water trawl</u> Mid-water trawl	<u>47°13.780'S</u> 47°13.780'S	<u>148°50.670'E</u> 48°50.670'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°21.000'S</u> 47°21.000'S	<u>148°45.610'E</u> 48°45.610'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°21.000'S</u> 47°21.000'S	<u>149°03.200'E</u> 49°03.200'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°24.015'S</u> 47°24.015'S	<u>148°37.235'E</u> 48°37.235'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°24.015'S</u> 47°24.015'S	<u>148°45.610'E</u> 48°45.610'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°24.800'S</u> 47°24.800'S	<u>149°03.200'E</u> 49°03.200'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°30.320'S</u> 47°30.320'S	<u>148°44.390'E</u> 48°44.390'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°30.320'S</u> 47°30.320'S	<u>148°57.650'E</u> 48°57.650'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°35.205'S</u> 47°35.205'S	<u>148°37.235'E</u> 48°37.235'E	
<u>S. Tasman Rise 3</u> Box 3	<u>S. Tasman Rise</u> <u>S. Tasman Rise 3</u> S. Tasman Rise 3	<u>Mid-water trawl</u> Mid-water trawl	<u>47°35.205'S</u> 47°35.205'S	<u>148°44.390'E</u> 48°44.390'E	
Wanganella	West Ridge Norfolk	Mid-water trawl	33°28.000'S	167°42.000'E	
Wanganella	West Ridge Norfolk	Mid-water trawl	33°28.000'S	168°00.000'E	
Wanganella	West Ridge Norfolk	Mid-water trawl	33°52.000'S	167°13.000'E	
Wanganella	West Ridge Norfolk	Mid-water trawl	33°52.000'S	167°42.000'E	
Wanganella	West Ridge Norfolk	Mid-water trawl	34°12.000'S	167°13.000'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
Wanganella	West Norfolk Ridge	Mid-water trawl	34°12.000'S	168°00.000'E	
Westpac Bank	Westpac Bank	Mid-water trawl	39°39.000'S	167°05.000'E	
Westpac Bank	Westpac Bank	Mid-water trawl	39°39.000'S	167°21.090'E	
Westpac Bank	Westpac Bank	Mid-water trawl	39°55.000'S	167°05.000'E	
Westpac Bank	Westpac Bank	Mid-water trawl	39°55.000'S	167°21.090'E	



c) Bottom Line Management Area coordinates

Block name	Locality	Method	Latitude	Longitude	EEZ Direction
Carpel bank		Bottom Line	<u>25°14.950'S</u>	<u>159°00.285'E</u>	
Carpel bank		Bottom Line	<u>25°14.950'S</u>	<u>160°00.000'E</u>	
Carpel bank		Bottom Line	<u>25°59.640'S</u>	<u>159°00.285'E</u>	
Carpel bank		Bottom Line	<u>25°59.640'S</u>	<u>160°00.000'E</u>	
Gascoyne		Bottom Line	<u>36°19.950'S</u>	<u>155°53.630'E</u>	
Gascoyne		Bottom Line	<u>36°19.950'S</u>	<u>156°43.770'E</u>	
Gascoyne		Bottom Line	<u>36°59.440'S</u>	<u>155°53.630'E</u>	
Gascoyne		Bottom Line	<u>36°59.440'S</u>	<u>156°43.770'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>35°20.000'S</u>	<u>165°00.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>35°20.000'S</u>	<u>166°21.915'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>35°31.000'S</u>	<u>164°54.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>35°31.000'S</u>	<u>165°00.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>35°54.000'S</u>	<u>164°46.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>35°54.000'S</u>	<u>164°54.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°00.500'S</u>	<u>165°18.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°00.500'S</u>	<u>166°21.915'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°06.000'S</u>	<u>164°46.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°06.000'S</u>	<u>165°18.000'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°13.460'S</u>	<u>164°40.830'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°13.460'S</u>	<u>165°06.050'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°26.800'S</u>	<u>164°40.830'E</u>	
S. Lord Howe	C. Lord Howe	Bottom Line	<u>36°26.800'S</u>	<u>165°06.050'E</u>	
North Lord Howe Rise	Capel bank	Bottom Line	<u>25°14.950'S</u>	<u>159°00.285'E</u>	
North Lord Howe Rise	Capel bank	Bottom Line	<u>25°14.950'S</u>	<u>160°00.000'E</u>	
North Lord Howe Rise	Capel bank	Bottom Line	<u>25°59.640'S</u>	<u>159°00.285'E</u>	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
North Lord Howe Rise North Lord Howe Rise	Capel bank Capel bank	Bottom Line Bottom Line	25°59.640'S 25°59.640'S	160°00.000'E 160°00.000'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	37°45.615'S 37°45.615'S	168°35.830'E 168°35.830'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	37°55.230'S 37°55.230'S	168°35.830'E 168°35.830'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	37°55.230'S 37°55.230'S	169°25.400'E 169°25.400'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°13.830'S 38°13.830'S	169°25.400'E 169°25.400'E	South-west along the New Zealand EEZ
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°23.165'S 38°23.165'S	169°11.967'E 169°11.967'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°23.165'S 38°23.165'S	168°30.780'E 168°30.780'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°32.750'S 38°32.750'S	168°30.780'E 168°30.780'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°32.750'S 38°32.750'S	167°57.950'E 167°57.950'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	39°17.180'S 39°17.180'S	167°57.950'E 167°57.950'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	39°17.180'S 39°17.180'S	167°30.500'E 167°30.500'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°06.430'S 38°06.430'S	167°30.500'E 167°30.500'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	38°06.430'S 38°06.430'S	168°09.833'E 168°09.833'E	
Central Challenger Central Challenger	Central Challenger Central Challenger	Bottom Line Bottom Line	37°45.615'S 37°45.615'S	168°09.833'E 168°09.833'E	
Gascoyne Gascoyne	Gascoyne Gascoyne	Bottom Line Bottom Line	36°19.950'S 36°19.950'S	155°53.630'E 155°53.630'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
GascoyneGascoyne	GascoyneGascoyne	Bottom LineBottom Line	36°19.950'S36°19.950'S	156°43.770'E156°43.770'E	
GascoyneGascoyne	GascoyneGascoyne	Bottom LineBottom Line	36°59.440'S36°59.440'S	155°53.630'E155°53.630'E	
GascoyneGascoyne	GascoyneGascoyne	Bottom LineBottom Line	36°59.440'S36°59.440'S	156°43.770'E156°43.770'E	
1	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	47°40.000'S	149°27.000'W	
1	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	47°40.000'S	150°00.000'W	
1	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	48°05.000'S	149°27.000'W	
1	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	48°05.000'S	150°00.000'W	
3	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	45°59.000'S	154°07.224'W	
3	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	45°59.000'S	154°28.653'W	
3	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	46°15.000'S	154°07.224'W	
3	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	46°15.000'S	154°28.653'W	
4	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	46°01.000'S	155°40.000'W	
4	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	46°01.000'S	156°10.000'W	
4	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	46°24.000'S	155°40.000'W	
4	South Louisville Louisville RidgeLouisville Ridge	Bottom Line	46°24.000'S	156°10.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
5	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°26.000'S	156°30.000'W	
5	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°26.000'S	156°55.000'W	
5	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°42.000'S	156°30.000'W	
5	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°42.000'S	156°55.000'W	
6	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°19.500'S	157°19.000'W	
6	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°19.500'S	157°55.000'W	
6	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°30.000'S	157°19.000'W	
6	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	45°30.000'S	157°55.000'W	
7	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°43.950'S	158°18.000'W	
7	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°43.950'S	158°38.000'W	
7	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°57.950'S	158°18.000'W	
7	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°57.950'S	158°38.000'W	
8	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°13.000'S	159°43.000'W	
8	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°13.000'S	159°54.000'W	
8	<u>South Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°21.000'S	159°43.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
8	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°21.000'S	159°54.000'W	
9	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°51.183'S	160°29.235'W	
9	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°51.183'S	160°50.820'W	
9	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°07.000'S	160°29.235'W	
9	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	44°07.000'S	160°50.820'W	
10	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°22.000'S	161°21.770'W	
10	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°22.000'S	161°39.000'W	
10	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°31.370'S	161°10.170'W	
10	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°31.370'S	161°21.770'W	
10	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°41.440'S	161°10.170'W	
10	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	43°41.440'S	161°39.000'W	
11	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	42°40.000'S	161°48.000'W	
11	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	42°40.000'S	162°07.000'W	
11	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	42°54.500'S	161°48.000'W	
11	<u>South Louisville</u> <u>Louisville</u> <u>Ridge</u> <u>Louisville Ridge</u>	Bottom Line	42°54.500'S	162°07.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
13	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	41°45.000'S	163°29.500'W	
13	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	41°45.000'S	163°49.000'W	
13	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	42°00.000'S	163°29.500'W	
13	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	42°00.000'S	163°49.000'W	
14	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	41°17.000'S	164°00.000'W	
14	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	41°17.000'S	164°27.000'W	
14	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	41°40.000'S	164°00.000'W	
14	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	41°40.000'S	164°27.000'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°32.897'S	165°12.000'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°32.897'S	165°30.000'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°42.000'S	164°56.400'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°42.000'S	165°12.000'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°48.000'S	165°24.000'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°48.000'S	165°30.000'W	
15	<u>Central Louisville Ridge</u> <u>Louisville Ridge</u>	Bottom Line	40°54.000'S	165°12.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
15	<u>Central Louisville Ridge</u> Louisville Ridge	Bottom Line	40°54.000'S	165°24.000'W	
15	<u>Central Louisville Ridge</u> Louisville Ridge	Bottom Line	41°06.000'S	164°56.400'W	
15	<u>Central Louisville Ridge</u> Louisville Ridge	Bottom Line	41°06.000'S	165°12.000'W	
17	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°20.013'S	167°29.000'W	
17	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°20.013'S	167°47.067'W	
17	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°32.000'S	167°29.000'W	
17	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°32.000'S	167°47.067'W	
18	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°11.013'S	168°01.785'W	
18	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°11.013'S	168°20.000'W	
18	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°40.000'S	168°01.785'W	
18	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	38°40.000'S	168°20.000'W	
22	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	36°45.000'S	169°30.000'W	
22	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	36°45.000'S	170°00.000'W	
22	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	37°08.000'S	169°30.000'W	
22	<u>North Louisville Ridge</u> Louisville Ridge	Bottom Line	37°08.000'S	170°00.000'W	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
23	<u>North Louisville</u> <u>Louisville</u> <u>RidgeLouisville Ridge</u>	Bottom Line	36°00.000'S	169°22.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>RidgeLouisville Ridge</u>	Bottom Line	36°00.000'S	169°40.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>RidgeLouisville Ridge</u>	Bottom Line	36°10.000'S	169°22.000'W	
23	<u>North Louisville</u> <u>Louisville</u> <u>RidgeLouisville Ridge</u>	Bottom Line	36°10.000'S	169°40.000'W	
Marion	Marion	Bottom Line	27°59.155'S	175°19.590'E	
Marion	Marion	Bottom Line	27°59.155'S	175°40.370'E	
Marion	Marion	Bottom Line	28°19.800'S	175°19.590'E	
Marion	Marion	Bottom Line	28°19.800'S	175°40.370'E	
N. Lord Howe	N. Lord Howe	Bottom Line	32°39.630'S	163°04.415'E	Start on the Australian EEZ
N. Lord Howe	N. Lord Howe	Bottom Line	32°39.630'S	163°40.000'E	
N. Lord Howe	N. Lord Howe	Bottom Line	33°20.000'S	163°40.000'E	
N. Lord Howe	N. Lord Howe	Bottom Line	33°20.000'S	163°20.000'E	
N. Lord Howe	N. Lord Howe	Bottom Line	34°40.000'S	162°20.000'E	
N. Lord Howe	N. Lord Howe	Bottom Line	34°40.000'S	163°20.000'E	
N. Lord Howe	N. Lord Howe	Bottom Line	33°54.773'S	162°20.000'E	North-east along the Australian EEZ to the start point
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>37°45.615'S</u>	<u>168°35.830'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>37°55.230'S</u>	<u>168°35.830'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>37°55.230'S</u>	<u>169°25.400'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°13.830'S</u>	<u>169°25.400'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°23.165'S</u>	<u>169°11.967'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°23.165'S</u>	<u>168°30.780'E</u>	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°32.750'S</u>	<u>168°30.780'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°32.750'S</u>	<u>167°57.950'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>39°17.180'S</u>	<u>167°57.950'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>39°17.180'S</u>	<u>167°30.500'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°06.430'S</u>	<u>167°30.500'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>38°06.430'S</u>	<u>168°09.833'E</u>	
<u>Central Challenger</u>	<u>Northwest Challenger</u>	<u>Bottom Line</u>	<u>37°45.615'S</u>	<u>168°09.833'E</u>	
Northwest Challenger	Northwest Challenger	Bottom Line	37°01.333'S	169°36.706'E	South-east along the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Bottom Line	37°29.902'S	170°00.000'E	Due south to a point on the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Bottom Line	37°41.589'S	170°00.000'E	South-west along the New Zealand EEZ
Northwest Challenger	Northwest Challenger	Bottom Line	38°00.000'S	169°47.848'E	
Northwest Challenger	Northwest Challenger	Bottom Line	38°00.000'S	169°42.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°48.000'S	169°42.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°48.000'S	169°24.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°42.000'S	169°24.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°42.000'S	167°42.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°48.000'S	167°42.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°48.000'S	167°24.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	39°06.000'S	167°24.000'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
Northwest Challenger	Northwest Challenger	Bottom Line	39°06.000'S	167°18.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	38°52.000'S	167°18.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	38°52.000'S	167°06.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°48.000'S	167°06.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°48.000'S	167°00.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°42.000'S	167°00.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°42.000'S	166°40.000'E	
Northwest Challenger	Northwest Challenger	Bottom Line	37°01.333'S	166°40.000'E	
S. Lord Howe South	S. Lord Howe	Bottom Line	36°13.460'S	164°40.830'E	
S. Lord Howe South	S. Lord Howe	Bottom Line	36°13.460'S	165°06.050'E	
S. Lord Howe South	S. Lord Howe	Bottom Line	36°26.800'S	164°40.830'E	
S. Lord Howe South	S. Lord Howe	Bottom Line	36°26.800'S	165°06.050'E	
S. Tasman Rise 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom Line	47°08.280'S	147°50.200'E	Start on the Australian EEZ
S. Tasman Rise 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom Line	47°17.370'S	147°50.200'E	
S. Tasman Rise 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom Line	47°17.370'S	147°32.300'E	
S. Tasman Rise 1 Box 1	S. Tasman Rise 1 S. Tasman Rise 1 S. Tasman Rise 1	Bottom Line	47°10.197'S	147°32.300'E	East along the Australian EEZ to the start point
S. Tasman Rise 2 Box 2	S. Tasman Rise 2 S. Tasman Rise 2 S. Tasman Rise 2	Bottom Line	47°05.160'S	148°24.165'E	



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
S. Tasman Rise 2 Box 2	S. Tasman Rise Tasman Rise 2 S. Tasman Rise 2	Bottom Line	47°05.160'S	148°50.670'E	
S. Tasman Rise 2 Box 2	S. Tasman Rise Tasman Rise 2 S. Tasman Rise 2	Bottom Line	47°13.780'S	148°24.165'E	
S. Tasman Rise 2 Box 2	S. Tasman Rise Tasman Rise 2 S. Tasman Rise 2	Bottom Line	47°13.780'S	148°50.670'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°21.000'S	148°45.610'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°21.000'S	149°03.200'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°24.015'S	148°37.235'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°24.015'S	148°45.610'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°24.800'S	149°03.200'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°30.320'S	148°44.390'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°30.320'S	148°57.650'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°35.205'S	148°37.235'E	
S. Tasman Rise 3 Box 3	S. Tasman Rise Tasman Rise 3 S. Tasman Rise 3	Bottom Line	47°35.205'S	148°44.390'E	
Marion	Three Kings	Bottom Line	<u>27°59.155'S</u>	<u>175°19.590'E</u>	
Marion	Three Kings	Bottom Line	<u>27°59.155'S</u>	<u>175°40.370'E</u>	
Marion	Three Kings	Bottom Line	<u>28°19.800'S</u>	<u>175°19.590'E</u>	
Marion	Three Kings	Bottom Line	<u>28°19.800'S</u>	<u>175°40.370'E</u>	
Three Kings	Three Kings	Bottom Line	30°49.324'S	172°42.880'E	Start on the New Zealand EEZ



Block name	Locality	Method	Latitude	Longitude	EEZ Direction
Three Kings	Three Kings	Bottom Line	30°40.115'S	172°42.880'E	
Three Kings	Three Kings	Bottom Line	30°40.115'S	172°53.295'E	
Three Kings	Three Kings	Bottom Line	30°16.500'S	172°53.295'E	
Three Kings	Three Kings	Bottom Line	30°16.500'S	174°20.000'E	
Three Kings	Three Kings	Bottom Line	30°40.245'S	174°20.000'E	
Three Kings	Three Kings	Bottom Line	30°40.245'S	174°00.200'E	
Three Kings	Three Kings	Bottom Line	30°53.670'S	174°00.200'E	
Three Kings	Three Kings	Bottom Line	30°53.670'S	173°08.819'E	West along the New Zealand EEZ to the start point
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	32°17.000'S	166°41.530'E	
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	32°17.000'S	166°41.921'E	South-east along the Australian EEZ
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	32°28.633'S	168°00.000'E	
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	34°12.000'S	168°00.000'E	
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	34°12.000'S	167°13.000'E	
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	34°00.000'S	167°13.000'E	
West Norfolk Ridge	West Norfolk Ridge	Bottom Line	34°00.000'S	166°41.530'E	
Westpac Bank	Westpac Bank	Bottom Line	39°39.000'S	167°05.000'E	
Westpac Bank	Westpac Bank	Bottom Line	39°39.000'S	167°21.090'E	
Westpac Bank	Westpac Bank	Bottom Line	39°55.000'S	167°05.000'E	
Westpac Bank	Westpac Bank	Bottom Line	39°55.000'S	167°21.090'E	



ANNEX 5: List of VME Indicator Taxa

Taxonomic Level	Common Name	Qualifying taxa
<i>Vulnerable taxa</i>		
Phylum Porifera	Sponges	All taxa of the classes Demospongiae and Hexactinellidae
Phylum Cnidaria		
Class Anthozoa		
Order Scleractinia	Stony corals	All taxa within the following genera: <i>Solenosmilia</i> ; <i>Goniocorella</i> ; <i>Oculina</i> ; <i>Enallopsammia</i> ; <i>Madrepora</i> ; <i>Lophelia</i>
Order Antipatharia	Black corals	All taxa
Order Alcyonacea	True soft corals	All taxa excluding Gorgonian Alcyonacea
Informal group Gorgonian Alcyonacea	Sea fans octocorals	All taxa within the following suborders: Holaxonia; Calcaxonia; Scleraxonia
Order Pennatulacea	Sea pens	All taxa
Order Actiniaria	Anemones	All taxa
Order Zoantharia	Hexacorals	All taxa
Class Hydrozoa	Hydrozoans	All taxa within the orders Anthoathecata and Leptothecata, excluding Stylasteridae
Order Anthoathecatae		
Family Stylasteridae	Hydrocorals	All taxa
Phylum Bryozoa	Bryozoans	All taxa within the orders Cheilostomatida and Ctenostomatida
<i>Habitat indicators</i>		
Phylum Echinodermata		
Class Asteroidea		
Order Brisingida	Armless stars	All taxa
Class Crinoidea	Sea lillies	All taxa



ANNEX 6A: Weight Threshold for Triggering VME Encounter Protocol in Any One Tow for a Single VME Indicator Taxa

Taxonomic Level	Common Name	Weight Threshold (kg)
<i>Vulnerable taxa</i>		
Phylum Porifera	Sponges	25
Phylum Cnidaria		
Class Anthozoa		
Order Scleractinia	Stony corals	60
Order Antipatharia	Black Corals	5
Informal group Gorgonian Alcyonacea	Seafan octocorals	15
Order Actiniaria	Anemones	35
Order Zoantharia	Hexacorals	10

ANNEX 6B: Weight Threshold for Triggering VME Encounter Protocol in Any One Tow for Three or More Different VME Indicator Taxa

Taxonomic Level	Common Name	Weight Threshold (kg)
<i>Vulnerable taxa</i>		
Phylum Porifera	Sponges	5
Phylum Cnidaria		
Class Anthozoa		
Order Scleractinia	Stony corals	5
Order Antipatharia	Black corals	1
Order Alcyonacea	True soft corals	1
Informal group Gorgonian Alcyonacea	Seafan octocorals	1
Order Pennatulacea	Sea pens	1
Order Actiniaria	Anemones	5
Order Zoantharia	Hexacorals	1
Class Hydrozoa	Hydrozoans	1



Taxonomic Level	Common Name	Weight Threshold (kg)
Order Anthoathecatae		
Family Stylasteridae	Hydrocorals	1
Phylum Bryozoa	Bryozoans	1
Phylum Echinodermata		
Class Asteroidea		
Order Brisingida	Armless stars	1
Class Crinoidea	Sea lillies	1



ANNEX 7: Guidelines for the Preparation and Submission of Notifications of Encounters with Potential VMEs

1. General Information:
 - a. Contact details
 - b. Nationality
 - c. Vessel name
 - d. Date of fishing effort and notification
 - e. Time of tow start (UTC)
 - f. Time of tow end (UTC)
 - g. Fishing gear used
2. Location Information:
 - a. Bottom trawl or mid-water trawl
 - b. Start and end position of trawl (to nearest 0.01 decimal degree)
3. VME Information:
 - a. Summary information:
 - i. Number of VME Indicator taxa encountered
 - ii. Total weight of VME Indicator taxa encountered
 - b. Detailed information:
 - i. Weight of each VME Indicator taxa in tow (including any under threshold)

ANNEX 8: Minimum Observer Coverage Levels

Gear type	Minimum level of observer coverage
Vessels using bottom trawl and mid-water trawl gear	100% observer coverage
Bottom line gear	At least 10% observer coverage for the fishing year ⁹

ANNEX 9: Register of VMEs

Area	Coordinates	Depth (start and)	Number and weight of VME taxa encountered	Date encountered
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⁹ Expressed as the percentage of the total number of observed hooks.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

**COMM 11 – Report ANNEX 7c
Conservation and Management Measure 03a-2023 Deepwater Species**

(COMM 11 – Prop 12_rev2)

ADOPTED 10:22am 16/2/2023

CMM 03a-202~~31~~

Conservation and Management Measure for Deepwater Species in the SPRFMO Convention Area

(Supersedes CMM 03a-202~~10~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

ADOPTS the following Conservation and Management Measure (CMM) in accordance with Articles 8, 20, 21 and 22 of the Convention:

Objective

1. The objective of this CMM together with CMM 03-202~~32~~ (Bottom Fishing) is, through the application of the precautionary approach and an ecosystem approach to fisheries management, to ensure the long-term conservation and sustainable use of deep sea fishery resources, including target fish stocks as well as non-target or associated and dependent species, and, in doing so, to safeguard the marine ecosystems in which these resources occur, including inter alia the prevention of significant adverse impacts on vulnerable marine ecosystems.

Interpretation

2. For the purposes of this CMM, the definitions applicable in CMM 03-202~~32~~ (Bottom Fishing) have the same meaning in this CMM.
- 2bis. For the purposes of this CMM, nine orange roughy 'Fishery Management Areas' are established: Northwest Challenger, North Lord Howe Rise, Central Lord Howe Rise, West Norfolk Ridge, Three Kings, South Tasman Rise, North Louisville, Central Louisville and South Louisville. The coordinates and a map are provided at Annex 1

Application

- ~~2.3.~~ All activities conducted under this CMM must be conducted in accordance with CMM 03-202~~32~~ (Bottom Fishing).
- ~~3.4.~~ This CMM together with CMM 03-202~~32~~ (Bottom Fishing) are adopted as cautious preliminary conservation and management measures consistent with Article 22(1) of the Convention.

Catch Limits and Monitoring for Deep Sea Fish Stocks

- 4.5. The following precautionary catch limits are set by the Commission on the basis of the advice of the Scientific Committee:
 - a) The total catch of orange roughy (*Hoplostethus atlanticus*) in the Louisville Ridge¹ in the 202~~30~~, 202~~41~~, 202~~52~~ fishing years shall be limited to ~~1,140~~ 581 tonnes in each fishing year as follows.

¹ "Louisville Ridge" means all areas within the Evaluated Area to the east of 178°E.



- i. 305 tonnes for the Central Louisville stock²;
- ii. 116 tonnes for the North Louisville stock³;
- iii. 160 tonnes for the South Louisville stock⁴.

b) The total catch of orange roughy in the Tasman Sea⁵ in the ~~2023₁~~, ~~and 2024₂~~, 2025 fishing years shall be limited to ~~378711~~ tonnes in each fishing year as follows.

- i. 160~~396~~ tonnes for the Northwest Challenger stock⁶;
- ii. 174~~261~~ tonnes for the Lord Howe Rise stock⁷;
- iii. 4~~54~~ tonnes for the West Norfolk Ridge stock⁸.

~~5-6.~~ Members and CNCPs agree, having regard to the Scientific Committee's advice, that the total catch of orange roughy throughout its range in the South Tasman Rise⁹ should not exceed 0 tonnes.

~~6-7.~~ The total catch of orange roughy in the portion of the South Tasman Rise occurring in the Convention Area¹⁰ ~~occurring in the Convention Area~~ shall be 0 tonnes, until otherwise decided by the Commission, based on advice from the Scientific Committee.

~~7-8.~~ Consistent with the report of the 7th meeting of the Scientific Committee, Members and CNCPs acknowledged that to maintain the Southwest Challenger Plateau orange roughy stock at or above 40% B₀ for the next five years, the estimated annual yield was calculated to be 2,448 tonnes.

~~8-9.~~ The total catch of orange roughy in Westpac Bank¹¹ shall be limited to 258 tonnes (based on the assumption that 12.5% of the Southwest Challenger Plateau biomass resides in the Westpac Bank area) in each of the, ~~2021, 2022, 2023,~~ 2024 fishing years but may be reviewed by the Commission following advice

² "Central Louisville stock" means the stock that is located in the "Central Louisville" FMA, as specified in Annex 1.

³ "North Louisville stock" means the stock that is located in the "North Louisville" FMA, as specified in Annex 1.

⁴ "South Louisville stock" means the stock that is located in the "South Louisville" FMA, as specified in Annex 1.

⁵ "Tasman Sea" means all areas within the Evaluated Area to the west of 178°E, excluding the "Westpac Bank" and the "South Tasman Rise".

⁶ "Northwest Challenger stock" means the stock that is located in the "Northwest Challenger" locality FMA, as specified in Annex 14 of CMM 03-2022.

⁷ "Lord Howe Rise stock" means the stock that is located in the "N. Lord Howe" and, "C. Lord Howe" FMAs, and "S. Lord Howe" localities, as specified in Annex 12.

⁸ "West Norfolk Ridge stock" means the stock that is located in the "West Norfolk Ridge" locality FMA, as specified in Annex 14 of CMM 03-2022.

⁹ "South Tasman Rise" means that part of the Australian EEZ and the high seas area adjacent to the Australian EEZ within and bounded by a line beginning at the point of latitude 46°26' 07" S, longitude 146°30 E; and running:

- (i) from there east along that meridian to its intersection with the meridian of longitude 150° 00 E;
- (ii) from there south along that meridian to its intersection with the parallel of 48°30 S; and
- (iii) from there west along that parallel to its intersection with the meridian of longitude 146°30 E; and
- (iv) from there north along that meridian to the point where the line began.

¹⁰ "the portion of the South Tasman Rise occurring in the Convention Area" that is located in the "South Tasman Rise" FMA, as specified in Annex 1 means the high seas area adjacent to the Australian EEZ bounded by a line beginning at the intersection of the outer limit of the Australian EEZ with the meridian of longitude 150°00 E; and running:

- (i) from there south along that meridian to its intersection with the parallel of 48°30 S; and
- (ii) from there west along that parallel to its intersection with the meridian of longitude 146°30 E; and
- (iii) from there north along that meridian to the intersection with the outer limit of the Australian EEZ; and
- (iv) from there generally north easterly along that outer limit to the point where the line began.

¹¹ "Westpac Bank" means the high seas area adjacent to the New Zealand EEZ that is located in the "Westpac Bank FMA", as specified in Annex 1 bounded by a line beginning at the intersection of the outer limit of the New Zealand EEZ at 39° 20S and 168° 34E; and extending:

- (i) from there west to 39° 20S and 166° 30E; and
- (ii) from there south to 40° 30S and 166° 30E; and
- (iii) from there due east to 40° 30S and 167° 24E; and
- (iv) from there generally north east to the point where the line began.



from the Scientific Committee based on a stock assessment undertaken by New Zealand and other relevant information.

~~9.10.~~ 9.10. Until the Scientific Committee recommends precautionary catch limits, the catch of all other target and non-target fish species in the Evaluated Area shall be limited to a level that does not exceed the annual average catch levels of that Member or CNCP over the period 1 January 2002 to 31 December 2006 as shown in Table 3.

~~10.11.~~ 10.11. The Scientific Committee should provide regular advice on the status of bottom fishing target species and non-target species to enable the Commission to continue meeting the objectives of the Convention and this CMM. The Scientific Committee may provide advice on the revision or subdivision of the catch limits set out in this section.

~~11.12.~~ 11.12. The Scientific Committee shall review its advice on bottom fishing target species and non-target species no later than every five (5) years, or a shorter period as determined by the Commission. The advice on bottom fishing target species and non-target species, or elements of the advice, may be reviewed together or separately, as determined by the Commission.

~~12.13.~~ 12.13. In ~~2023~~1~~~~ and ~~2024~~2~~~~, 2025 Members and CNCPs are to share in the total catch of orange roughy, as specified in paragraphs 5, 7 and 9, in the tonnages set out in Table 1 of this CMM.

~~13.14.~~ 13.14. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) of the Convention and having regard to paragraphs 5, 7 and 9, the percentages included in Table 2 shall be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from ~~2023~~1~~~~ to 2025~~3~~ inclusive.

~~14.15.~~ 14.15. By 31 December each year, a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may allocate it on the basis of domestic legislation. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay. Such transfers shall only occur within, and not across, the catch limits and areas defined in paragraphs 5, 7 and 9.

~~15.16.~~ 15.16. Where a Member or CNCP has reached 70% of their limit set out in Table 1, that Member or CNCP shall monitor catch daily and ensure there is no further fishing effort¹² by fishing vessels flying its flag once the catch limit has been reached. Members and CNCPs shall notify the Secretariat as soon as practicable of the catch limit being reached.

~~16.17.~~ 16.17. For the stocks referred to in paragraph 5(b)(i) and paragraph 5(b)(ii), in addition to the requirements of paragraph 16:

- a) Members and CNCPs shall monitor and report catch weekly to the Secretariat. Such reporting shall specify catch per stock;
- b) Where 50% of the catch limit of either of those stocks has been reached, the Secretariat shall notify all Members and CNCPs as soon as practicable and Members and CNCPs shall monitor and report catch daily to the Secretariat for the stock concerned;
- c) Where 65% of the catch limit for either of those stocks has been reached, the Secretariat shall notify all Members and CNCPs as soon as practicable and Members and CNCPs shall ensure that within 24 hours of receiving notification there is no further fishing effort by fishing vessels flying its flag for that stock for the remainder of the fishing year;
- d) Where 90% of the catch limit of either of those stocks has been reached prior to the 24 hour notification to cease effort, Members and CNCPs shall ensure that within 4 hours of receiving notification there is

¹² No tows will begin after the catch limit is reached.



no further fishing effort by fishing vessels flying its flag for that stock for the remainder of the fishing year.

~~17-18.~~ For the stock referred to in paragraph 5(b)(iii), in addition to the requirements of paragraph 16:

- a) Members and CNCs shall monitor and report catch daily to the Secretariat;
- b) Where 50% of the catch limit for that stock has been reached, the Secretariat shall notify Members and CNCs as soon as practicable, and Members and CNCs shall ensure that within 24 hours of receiving notification there is no further fishing effort by fishing vessels flying its flag for that stock for the remainder of the fishing year;
- c) Where 65% of the catch limit of that stock has been reached prior to the 24 hour notification to cease effort, Members and CNCs shall ensure that within 4 hours of receiving notification there is no further fishing effort by fishing vessels flying its flag for that stock for the remainder of the fishing year.

~~18-19.~~ If a Member or CNC's catch is below their allocated¹³ or revised¹⁴ catch limit for orange roughy in an area for which a catch limit has been set in a given year, that Member or CNC may carry forward the undercatch amount¹⁵. The total carry forward amount shall not exceed 10% of their allocated catch limit for the year from which the amount is being carried forward. This carry-forward shall only be added to their allocated catch limit for the following fishing year. This paragraph does not apply to the Tasman Sea area.

~~19-20.~~ If a Member or CNC has exceeded their allocated or revised catch limit for orange roughy in an area for which a catch limit has been set in a given year, the full amount of their catch above the allocated or revised catch limit (whichever results in a greater deduction) shall be deducted from their allocated catch limit for the following fishing year.

~~20-21.~~ By 10 December each year Members and CNCs shall notify the Secretariat whether they intend to carry forward under caught orange roughy catch for a defined area to the next fishing year, and if they have excess orange roughy catch for a defined area to confirm the revised catch limit for the next fishing year.

~~21-22.~~ As soon as practicable following the annual meeting of the Commission, Members and CNCs shall notify the Secretariat of any revised catch limits. The Secretariat shall circulate notifications to all Members and CNCs, and reflect revised catch limits in monthly catch reports.

~~22-23.~~ If, on the basis of advice from the Scientific Committee, the Commission agrees to reduce the total catch for an area, the carry-forward provision in paragraph 19 shall not apply, unless decided otherwise by the Commission. The overcatch provision, specified in paragraph 20, shall still apply.

~~23-24.~~ If the Commission agrees to reduce the orange roughy catch limit of one or more Members or CNCs for an area for which a catch limit has been set, the carry forward provision in paragraph 19 shall not apply unless decided otherwise by the Commission, taking into account the circumstances of the reduction. The overcatch provision, specified in paragraph 20, shall still apply.

~~24-25.~~ For the purposes of monitoring catch levels, catches shall be attributed to the flag State of the vessels that have undertaken the fishing described in Article 1(1)(g)(i) and (ii) of the Convention.

~~25-26.~~ Members and CNCs shall notify the Secretariat no less than 72 hours in advance of commencing fishing activities if their flagged vessels intend to fish in the Tasman Sea or Westpac Bank areas.

~~26-27.~~ Members and CNCs shall report, in an electronic format, the monthly catches of their flagged vessels participating in bottom fishing to the Secretariat within 20 days of the end of each month, consistent with the SPRFMO Data submission templates.

¹³ The allocated catch limit is the limit specified in Table 1.

¹⁴ The revised catch limit is the limit determined following the application of the carry forward provision in this paragraph or the overcatch provision in paragraph 20, as applicable.

¹⁵ The undercatch amount is defined as the difference between actual catch and the allocated or revised catch limit (whichever results in lesser carry forward).



27-28. For the stocks referred to in paragraph 5(b)(i) and paragraph 5(b)(ii), Members and CNCs shall report, in an electronic format, the weekly catches¹⁶ of their flagged vessels participating in bottom fishing to the Secretariat by 1pm Monday (NZST) each week that catch is recorded, consistent with the SPRFMO Data submission templates. Following notification by the Secretariat that 65% of the catch limit for a stock has been reached, Members and CNCs shall report, in an electronic format, the daily catches¹⁷ of their flagged vessels participating in bottom fishing to the Secretariat by 1pm (NZST) each day that catch is recorded, consistent with the SPRFMO Data submission templates.

28-29. For the stock referred to in paragraph 5(b)(iii) Members and CNCs shall report, in an electronic format, the daily catches of their flagged vessels participating in bottom fishing to the Secretariat by 1pm (NZST) each day that catch is recorded, consistent with the SPRFMO Data submission templates.

30. The Executive Secretary shall circulate monthly catch reports from data provided in accordance with paragraphs 27, 28 and 29, aggregated by flag State and month, to all Members and CNCs as soon as possible, once collated.

29-31. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCs against the submitted data. The Executive Secretary shall inform Members and CNCs of the outcome of the verification exercise and any possible discrepancies encountered.

30-32. The provisions of this CMM are not necessarily to be considered precedents for future allocation or other decisions in accordance with Article 21 of the Convention relating to participation in bottom fisheries in the Convention Area and adjacent areas of national jurisdiction in the circumstances provided for in Article 20(4)(ii) and (iii) with the consent of the relevant coastal State Member or Members.

Review

31-33. Notwithstanding that the Commission may alter the catch limits prescribed in paragraphs 5, 7 and 9, this CMM shall be reviewed no later than the annual meeting of the Commission in 20264.

Table 1: Tonnes of orange roughy in 20231 and 20242,2025 as referred to in paragraph 13.

	Tonnes	
	Australia	New Zealand
Tasman Sea	<u>76</u> 142	<u>30</u> 2569
Louisville Ridge	<u>58</u> 114	<u>52</u> 31 026
Westpac Bank	13	245
Portion of the South Tasman Rise occurring in the Convention Area	0	0

Table 2: Percentages referred to in paragraph 14 related to the catches of orange roughy referred to in paragraphs 5, 7 and 9

	Percentages %
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¹⁶ Weekly catch is catch taken from 0000hrs Monday New Zealand standard time (NZST) to 2359hrs Sunday (NZST).

¹⁷ Daily catch is catch taken from 0000hr to 2359hrs each day (NZST).



	Australia	New Zealand
Tasman Sea	20	80
Louisville Ridge	10	90
Westpac Bank	5	95
Portion of the South Tasman Rise occurring in the Convention Area	75	25

Table 3: Tonnages of all other target and non-target fish species in the Evaluated Area as referred to in paragraph 10.

All other target and non-target fish species ¹⁸	
Australia	New Zealand
211	762

ANNEX 1: Coordinates for Each Fishery Management Area (FMA)

FMA	Point Order	Latitude DDM	Longitude DDM	EEZ Direction
<u>Central Lord Howe Rise</u>	<u>1</u>	<u>35°00.000'S</u>	<u>164°00.000'E</u>	
<u>Central Lord Howe Rise</u>	<u>2</u>	<u>35°00.000'S</u>	<u>167°00.000'E</u>	
<u>Central Lord Howe Rise</u>	<u>3</u>	<u>36°45.000'S</u>	<u>167°00.000'E</u>	
<u>Central Lord Howe Rise</u>	<u>4</u>	<u>36°45.000'S</u>	<u>164°00.000'E</u>	
<u>Central Louisville</u>	<u>1</u>	<u>39°24.000'S</u>	<u>167°00.000'W</u>	
<u>Central Louisville</u>	<u>2</u>	<u>39°24.000'S</u>	<u>162°30.000'W</u>	
<u>Central Louisville</u>	<u>3</u>	<u>43°00.000'S</u>	<u>162°30.000'W</u>	
<u>Central Louisville</u>	<u>4</u>	<u>43°00.000'S</u>	<u>167°00.000'W</u>	
<u>North Lord Howe Rise</u>	<u>1</u>	<u>32°30.000'S</u>	<u>163°06.980'E</u>	<u>Start on the Australian EEZ</u>

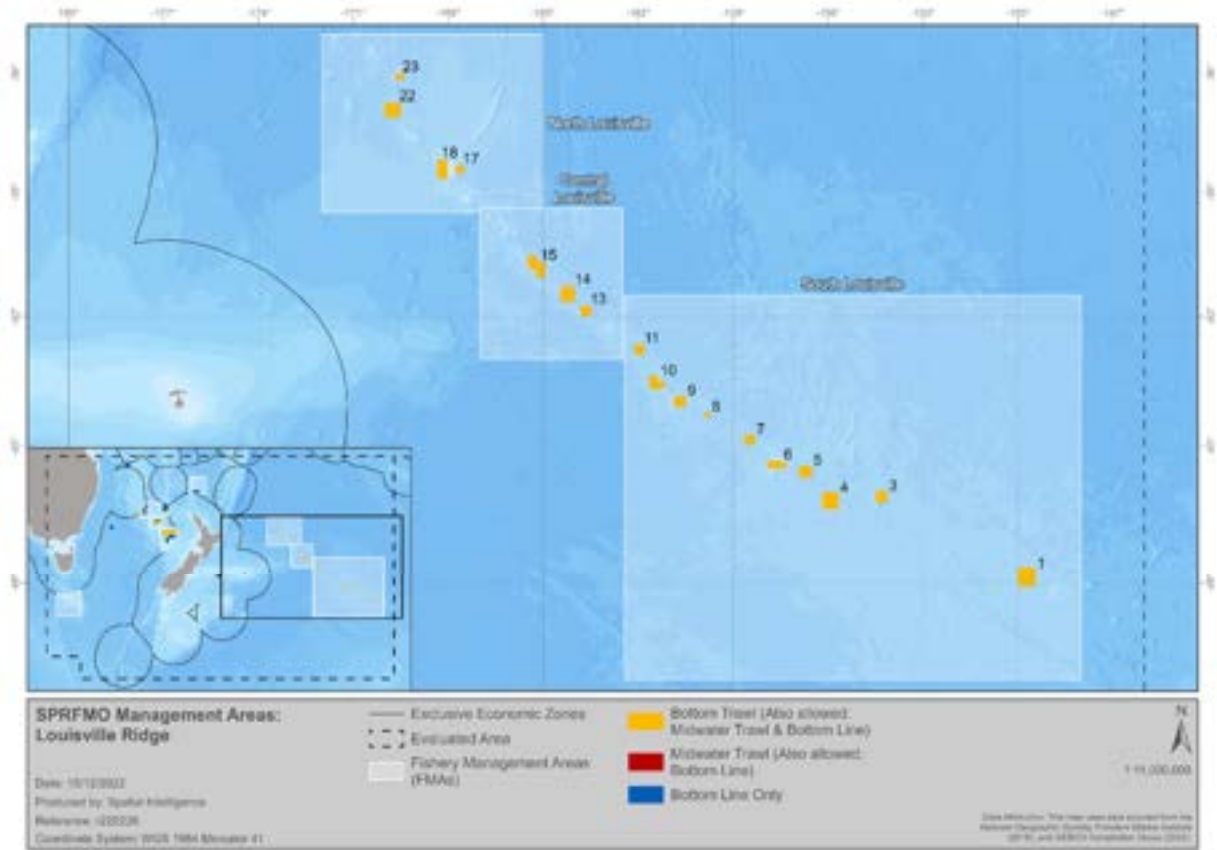
¹⁸ Noting that the tonnages in Table 3 correspond to the evaluated area defined in paragraph 4 of CMM 03-2023³² (Bottom fishing).

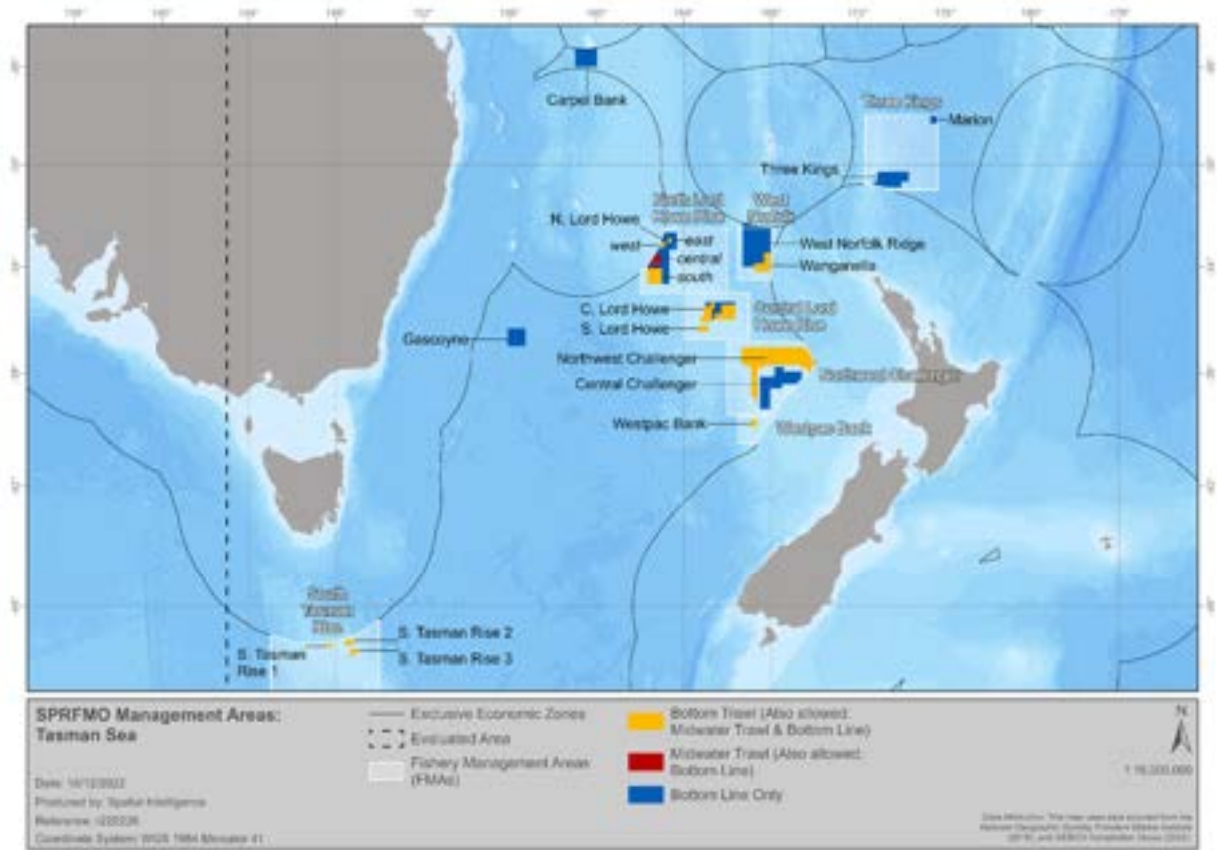


<u>FMA</u>	<u>Point Order</u>	<u>Latitude DDM</u>	<u>Longitude DDM</u>	<u>EEZ Direction</u>
<u>North Lord Howe Rise</u>	<u>2</u>	<u>32°30.000'S</u>	<u>166°00.000'E</u>	
<u>North Lord Howe Rise</u>	<u>3</u>	<u>35°00.000'S</u>	<u>166°00.000'E</u>	
<u>North Lord Howe Rise</u>	<u>4</u>	<u>35°00.000'S</u>	<u>162°00.000'E</u>	
<u>North Lord Howe Rise</u>	<u>5</u>	<u>34°13.064'S</u>	<u>162°00.000'E</u>	<u>North along the Australian EEZ to the start point</u>
<u>North Louisville</u>	<u>1</u>	<u>35°00.000'S</u>	<u>172°00.000'W</u>	
<u>North Louisville</u>	<u>2</u>	<u>35°00.000'S</u>	<u>165°00.000'W</u>	
<u>North Louisville</u>	<u>3</u>	<u>39°24.000'S</u>	<u>165°00.000'W</u>	
<u>North Louisville</u>	<u>4</u>	<u>39°24.000'S</u>	<u>167°00.000'W</u>	
<u>North Louisville</u>	<u>5</u>	<u>39°30.000'S</u>	<u>167°00.000'W</u>	
<u>North Louisville</u>	<u>6</u>	<u>39°30.000'S</u>	<u>172°00.000'W</u>	
<u>Northwest Challenger</u>	<u>1</u>	<u>36°50.000'S</u>	<u>166°00.000'E</u>	
<u>Northwest Challenger</u>	<u>2</u>	<u>36°50.000'S</u>	<u>169°28.474'E</u>	<u>South-east along the New Zealand EEZ</u>
<u>Northwest Challenger</u>	<u>3</u>	<u>37°29.902'S</u>	<u>170°00.000'E</u>	<u>Due south to a point on the New Zealand EEZ</u>
<u>Northwest Challenger</u>	<u>4</u>	<u>37°41.589'S</u>	<u>170°00.000'E</u>	<u>South-west along the New Zealand EEZ</u>
<u>Northwest Challenger</u>	<u>5</u>	<u>39°30.000'S</u>	<u>168°08.799'E</u>	
<u>Northwest Challenger</u>	<u>6</u>	<u>39°30.000'S</u>	<u>166°00.000'E</u>	
<u>South Louisville</u>	<u>1</u>	<u>41°30.000'S</u>	<u>162°26.000'W</u>	
<u>South Louisville</u>	<u>2</u>	<u>41°30.000'S</u>	<u>148°00.000'W</u>	
<u>South Louisville</u>	<u>3</u>	<u>50°00.000'S</u>	<u>148°00.000'W</u>	
<u>South Louisville</u>	<u>4</u>	<u>50°00.000'S</u>	<u>162°26.000'W</u>	
<u>South Tasman Rise</u>	<u>1</u>	<u>46°25.979'S</u>	<u>150°00.000'E</u>	<u>Start on the Australian EEZ</u>
<u>South Tasman Rise</u>	<u>2</u>	<u>50°00.000'S</u>	<u>150°00.000'E</u>	



<u>FMA</u>	<u>Point Order</u>	<u>Latitude DDM</u>	<u>Longitude DDM</u>	<u>EEZ Direction</u>
<u>South Tasman Rise</u>	<u>3</u>	<u>50°00.000'S</u>	<u>145°00.000'E</u>	
<u>South Tasman Rise</u>	<u>4</u>	<u>46°55.906'S</u>	<u>145°00.000'E</u>	<u>East along the Australian EEZ to the start point</u>
<u>Three Kings</u>	<u>1</u>	<u>28°00.000'S</u>	<u>172°20.000'E</u>	
<u>Three Kings</u>	<u>2</u>	<u>28°00.000'S</u>	<u>175°40.000'E</u>	
<u>Three Kings</u>	<u>3</u>	<u>31°00.000'S</u>	<u>175°40.000'E</u>	
<u>Three Kings</u>	<u>4</u>	<u>31°00.000'S</u>	<u>173°32.686'E</u>	<u>West along the New Zealand EEZ</u>
<u>Three Kings</u>	<u>5</u>	<u>30°47.558'S</u>	<u>172°20.000'E</u>	
<u>West Norfolk</u>	<u>1</u>	<u>34°30.000'S</u>	<u>168°01.318'E</u>	<u>Start on the New Zealand EEZ</u>
<u>West Norfolk</u>	<u>2</u>	<u>34°30.000'S</u>	<u>166°30.000'E</u>	
<u>West Norfolk</u>	<u>3</u>	<u>32°30.000'S</u>	<u>166°30.000'E</u>	
<u>West Norfolk</u>	<u>4</u>	<u>32°30.000'S</u>	<u>168°10.000'E</u>	
<u>West Norfolk</u>	<u>5</u>	<u>33°19.412'S</u>	<u>168°10.000'E</u>	<u>South along the New Zealand EEZ to the start point</u>
<u>Westpac Bank</u>	<u>1</u>	<u>39°31.000'S</u>	<u>166°30.000'E</u>	
<u>Westpac Bank</u>	<u>2</u>	<u>39°31.000'S</u>	<u>168°08.176'E</u>	<u>South-west along the New Zealand EEZ</u>
<u>Westpac Bank</u>	<u>3</u>	<u>40°30.000'S</u>	<u>167°21.903'E</u>	
<u>Westpac Bank</u>	<u>4</u>	<u>40°30.000'S</u>	<u>166°30.000'E</u>	







11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7d

Conservation and Management Measure 05-2023 Record of Vessels

(COMM 11 – Prop 03_rev1)

Recommended by CTC (*10 Feb 2023, 19:00*)

ADOPTED

CMM 05-2023~~2~~

Conservation and Management Measure for ~~the Establishment of the~~
Commission Record of Vessels Authorised to Fish in the Convention Area
(Supersedes CMM 05-202~~2~~~~1~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING Article 27 (1)(a) of the Convention regarding the establishment of appropriate procedures for effective monitoring, control and surveillance of fishing and to ensure compliance with this Convention and the Conservation and Management Measures (CMMs) adopted by the Commission, including the establishment and maintenance of a Commission record of vessels authorised to fish in the Convention Area;

CONSIDERING that according to Article 1 (1)(h) of the Convention, “fishing vessel” means any vessel used or intended for fishing, including fish processing vessels, support ships, carrier vessels and any other vessel directly engaged in fishing operations;

NOTING that Article 19(2)(b) of the Convention stresses the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fish workers when establishing CMMs for fishery resources covered by the Convention.

TAKING INTO ACCOUNT the provisions of Articles 23 and 25 of the Convention, regarding Data collection, compilation and exchange and flag State duties;

ADOPTS the following CMM in accordance with Articles 8 and 27 of the Convention:

1. The appropriate government authorities of Members and Cooperating Non-Contracting Parties (CNCP) shall only authorise fishing vessels flying their flag to fish in the Convention Area where they are able to exercise effectively their responsibilities in respect of such vessels under the Convention, including relevant CMMs adopted by the Commission, and in accordance with relevant international law.
2. Each Member and CNCP will take into account the history of fishing vessels and operators with respect to their compliance (or non-compliance) with relevant CMMs when considering whether or not to authorise a particular fishing vessel flying its flag to fish in the Convention Area. Members and CNCPs shall ensure that no authorisation to fish in the Convention Area is issued to or maintained for a vessel included on any Regional Fisheries Management Organisation Illegal, Unreported and Unregulated (IUU) vessel list or on the IUU vessel list of the Commission for the Conservation of Antarctic Marine Living Resources.
3. Each Member or CNCP shall take necessary measures to ensure that vessels flying their flag and authorised to fish in the Convention Area have a sufficient level of ownership by citizens, residents or legal entities within its jurisdiction to allow enforcement action to be effectively taken against them.
4. Each Member and CNCP shall maintain a register of fishing vessels entitled to fly its flag and authorised to fish in the Convention Area.
5. Members and CNCPs shall collect and include for each vessel on its register of fishing vessels entitled to fly its flag and authorised to fish in the Convention Area, the data described in Annex 1 of this Measure.
6. For vessels not previously on the SPRFMO Record of Vessels, Members and CNCPs shall inform the Executive Secretary of the vessels flying their flag authorised to fish in the Convention Area at least 15 days previous to the first entry of such vessels in the Convention Area for the purposes of fishing for SPRFMO fishery resources. In doing so, Members or CNCP shall provide the Executive Secretary the vessel’s details, including the information required by Annex 1 of this Measure in order for the vessel to be validly included on the Commission Record of Vessels.



7. Members and CNCPs shall ensure that the vessel data specified in Annex 1 for the vessels flying their flag authorised to fish in the Convention Area is updated. Any modification regarding the vessel data shall be notified by the relevant Member or CNCP to the Executive Secretary within 15 days after such modification.
8. Members and CNCPs shall inform the Executive Secretary when authorisations to fish in the Convention area are revoked, relinquished or otherwise no longer valid. This information shall be submitted immediately or in any case in no more than 3 days of the date of any such change.
9. An authorisation entry on the SPRFMO Record of Vessels shall cease to be a valid entry when there is a change in any of the following details until the required information is updated:
 - a) Vessel flag State;
 - b) International Radio call sign (if any);
 - c) Flag authorisation start date;
 - d) Flag authorisation end date;
 - e) UVI (Unique Vessel Identifier)/IMO number (if issued).
10. Where a notification indicates a change of Vessel flag, the Secretariat shall inform the previous flag State on the Record of Vessels of the notification within 5 days of receiving such notification in order to confirm the Vessel flag has changed.
11. The Commission Record of Vessels shall include all the fishing vessels on Member's and CNCP's records authorised to fish in the Convention Area, including the data submitted by Members and CNCPs according to Annex 1 of this Measure
12. The Executive Secretary shall maintain the Commission Record of Vessels authorised to fish in the Convention Area. The Executive Secretary shall only include a vessel on the Commission Record of Vessels (Authorised to Fish in the Convention Area) once the mandatory information required by Annex I has been submitted^{1,2}. A summary of the Record of Vessels shall be publicly available on the SPRFMO website, according to the provision of paragraph 6 of CMM 02-2022 (Data Standards).
13. The Record of Vessels shall indicate which of the authorised vessels have been actively fishing for each year. To this end each Member and CNCP participating in fishing activities in the Convention shall notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area. In the case of vessels involved in the *Trachurus murphyi* fishery, this information shall be submitted within 20 days of the end of each month. For vessels involved in other fisheries within the Convention Area, this information shall be submitted on annual basis, within 30 days of the end of the year. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
14. When a previously authorised vessel is no longer authorised by the Member or CNCP to fish within the Convention Area, such vessel shall not be deleted from the Record of Vessels, but labelled as "not currently authorised".
15. The Commission will review this CMM as required, to consider amendments to this measure to improve its effectiveness and to take into account, among others, the developments of the FAO Global Record initiative as relevant.

¹ The Executive Secretary shall provide advice to the relevant Member and CNCP within two business days if the minimum information requirements have not been met.

² ~~By no later than 30 April 2022, the Executive Secretary shall write to any Members and CNCPs whose flagged vessels have incomplete information and request that the Member or CNCP either provide the outstanding information or request removal of such vessels from the Record of Vessels before 31 December 2022.~~



ANNEX 1 Standard for Vessel Data

1. Members and CNCP shall collect data on an un-aggregated (vessel by vessel) basis.
2. The following fields of data shall be collected, included on Member's and CNCP's authorised vessel records, and informed to the Executive Secretary, pursuant to paragraphs 6 and 7 of this measure.
 - a) Current vessel flag (using the codes indicated in Annex 2);
 - b) Name of vessel;
 - c) Registration number;
 - d) International radio call sign (if any);
 - e) UVI (Unique Vessel Identifier)/IMO number (if issued)³;
 - f) Previous Names (if known);
 - g) Port of registry;
 - h) Previous flag (if any, and using the codes indicated in Annex 2);
 - i) Type of vessel (Use appropriate ISSCFV codes, Annex 10 of CMM 02-2022 (Data Standards));
 - j) Type of fishing method(s) (Use appropriate ISSCFG codes, Annex 9 of CMM 02-2022 (Data Standards));
 - k) Length;
 - l) Length type e.g. "LOA", "LBP";
 - m) Gross Tonnage – GT (to be provided as the preferred unit of tonnage);
 - n) Gross Register Tonnage – GRT (to be provided if GT not available; may also be provided in addition to GT);
 - o) Power of main engine(s) (kW);
 - p) Hold capacity (m³: if applicable);
 - q) Freezer type (if applicable);
 - r) Number of freezers units (if applicable);
 - s) Freezing capacity (if applicable);
 - t) Vessel communication types and numbers (INMARSAT A, B and C numbers)⁴;
 - u) VMS system details (brand, model, features and identification);
 - v) Name of owner(s);
 - w) Address of owner(s);
 - x) Date of inclusion into the SPRFMO Record;
 - y) Flag authorisation end date;
 - z) Flag authorisation start date;
 - aa) as required by CMM 19 2021 Good quality high resolution digital photographs of the vessel of appropriate brightness and contrast, initially no older than 5 years at the time the vessel is first authorised, which shall consist of at least:
 - i. one photograph not smaller than 12 x 7 cm showing the starboard side of the vessel displaying its full overall length and complete structural features; any
 - ii. one photograph not smaller than 12 x 7 cm showing the port side of the vessel displaying its full

³ Effective 1 January 2020, Members and CNCPs shall ensure that all fishing vessels flying their flag that are authorised to fish in the Convention Area have IMO numbers issued to them. Artisanal fishing vessels from coastal developing States of no more than 15 metres in length fishing for jumbo flying squid will not be required to provide such information if not qualified to be issued one. Under that circumstance, these artisanal vessels must comply with international accepted identification and marking requirements, to identify the flag State, followed by the vessel's national registration or authorisation number (separated by a hyphen) as it appears in its flag State national registration certificate, and provide the information as an alternative of this requirement. The flag State shall notify the Secretariat of the vessels to which this derogation applies at least 15 days before their first entering into the Convention area. Unless otherwise decided by the Commission, this derogation will expire on 1 January 2026.

⁴ Artisanal fishing vessels from coastal developing States of no more than 15 metres in length, if not capable of having an INMARSAT system on board, shall comply with the communications and safety of human life on board requirements established for the high seas by its flag State, and provide the information as an alternative of this requirement. Unless otherwise decided by the Commission, this derogation will expire on 1 January 2026.



overall length and complete structural features; ~~any~~
iii. one photograph ~~not smaller than 12 x 7 cm~~ showing the stern taken directly from astern, including any superstructure. ~~any~~

Photos shall be updated when changes to the vessel characteristics are made (e.g., modified hull, superstructure, external markings). Photos shall be submitted in one of the following file formats: jpeg, png, or tiff.

3. Each Member and CNCP shall, to the extent practicable, also provide to the Executive Secretary at the same time as submitting information in accordance with paragraph 2 of this Annex, the following additional information:
 - a) External markings (such as vessel name and international radio call sign);
 - b) Types of fish processing lines (if applicable);
 - c) When built;
 - d) Where built;
 - e) Moulded depth;
 - f) Beam;
 - g) Electronic equipment on board (i.e., radio, echo sounder, radar, net sonde);
 - h) Name of license owner(s) (if different from vessel owner);
 - i) Address of license owner(s) (if different from vessel owner);
 - j) Name of operator(s) (if different from vessel owner);
 - k) Address of operator(s) (if different from vessel owner);
 - l) Name of vessel master;
 - m) Nationality of vessel master;
 - n) Name of fishing master;
 - o) Nationality of fishing master.
4. When Members and CNCPs provide the data indicated in paragraph 2 of this Annex, they shall do so in accordance with the specifications and format prescribed in Annex 8 of CMM 02-2022 (Data Standards).



ANNEX 2 Flag codes

Australia	AUS	Italy	ITA
Austria	AUT	Korea	KOR
Belgium	BEL	Latvia	LVA
Belize	BLZ	Liberia	LBR
Bulgaria	BGR	Lithuania	LTU
Chile	CHL	Luxembourg	LUX
China	CHN	Malta	MLT
Colombia	COL	Netherlands	NLD
Cook Islands	COK	New Zealand	NZL
Croatia	HRV	Panama	PAN
Cuba	CUB	Peru	PER
Curaçao	CUW	Poland	POL
Cyprus	CYP	Portugal	PRT
Czech Republic	CZE	Romania	ROU
Denmark	DNK	Russian Federation	RUS
Ecuador	ECU	Slovakia	SVK
Estonia	EST	Slovenia	SVN
Faroe Islands	FRO	Spain	ESP
Finland	FIN	Sweden	SWE
France	FRA	Chinese Taipei	TWN
Germany	DEU	United Kingdom	GBR
Greece	GRC	United States	USA
Hungary	HUN	Vanuatu	VUT
Ireland	IRL		



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7e

Conservation and Management Measure 06-2023 Commission VMS

(COMM 11 – Prop 01_rev2)

ADOPTED 9.20AM 17/2/23

CMM 06-~~2020~~2023

Conservation and Management Measure for the Establishment of the Commission
Vessel Monitoring System in the SPRFMO Convention Area

(Supersedes CMM 06-~~2018~~2020)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING the relevant provisions of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, in particular Articles 25 (1)(c) and 27 (1)(a);

NOTING the importance of the vessel monitoring system as a tool to effectively support the principles and measures for the conservation and management of fisheries resources within the Convention Area;

MINDFUL of the rights and obligations of Commission Members and Cooperating non-Contracting Parties (CNCs) in promoting the effective implementation of Conservation and Management Measures (CMMs) adopted by the Commission;

FURTHER MINDFUL of the key principles upon which the vessel monitoring system is based, including the confidentiality and security of information handled by the system, and its efficiency, cost-effectiveness and flexibility;

CONSIDERING *the Vessel Monitoring System utilisation experiences and advances to the capabilities of Members and CNCs since the initial acceptance by Commission of the SPRFMO Vessel Monitoring System;*

ADOPTS the following CMM to provide for the ongoing implementation, operation, and monitoring of the SPRFMO Vessel Monitoring System:

A Commission Vessel Monitoring System

1. The Commission Vessel Monitoring System ("Commission VMS") ~~shall be~~ considered fully operational ~~after~~ upon its official acceptance by the Commission as of 8th June 2018.
2. The Commission VMS shall apply to all Authorised vessels included in the Commission Record of Vessels in the SPRFMO Convention Area and/or the adjacent buffer zone. It shall cover the area as defined in Article 5 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean and have a buffer zone of 100 nautical miles outside the Convention Area. The buffer zone shall not apply to vessels flagged to adjacent coastal States fishing in waters under their jurisdiction.

Definitions

3. For the purposes of interpreting and implementing these procedures, the following definitions shall apply:
 - a) "Convention" means the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean;
 - b) "Convention Area" means the Area to which this Convention applies in accordance with Article 5 of the Convention;
 - c) "Commission" means the Commission of the South Pacific Regional Fisheries Management Organisation established by Article 6 of the Convention;
 - d) "Automatic Satellite Position Device/Automatic Location Communicator" (ALC) means a near real-time satellite position fixing transceiver;



- e) "Commission VMS" means the SPRFMO Vessel Monitoring System that is established under this CMM;
- f) "Member/CNCP VMS" means the domestic Vessel Monitoring Systems that each Member and CNCP are obliged to develop in accordance with this CMM;
- g) "Fisheries Monitoring Centre" (FMC) means the government/fishing entity authority or agency responsible for managing VMS for its flagged fishing vessels.

Purpose

- 4. The purpose of the Commission VMS is to continuously monitor the movements and activity of fishing vessels that are on the Commission Record of Vessels and are authorised by Members or CNCPs to fish for fisheries resources in the SPRFMO Convention Area in a cost-effective manner in order to, *inter alia*, support the implementation of SPRFMO CMMs.

Applicability

- 5. The Commission VMS shall apply to all fishing vessels as defined in Article 1 (1)(h) of the Convention¹. The system shall operate on a permanent basis, or until decided otherwise by the Commission, in the area defined in paragraph 2 of this CMM.
- 6. Any Member or CNCP may request, for the Commission's consideration and approval that waters under its jurisdiction be included within the area covered by the Commission VMS. Necessary expenses incurred in the inclusion of such area into the Commission VMS shall be borne by the Member or CNCP that made the request.

Nature and Specification of the Commission VMS

- 7. The Commission VMS shall be administered by the Secretariat under the guidance of the Commission.
- 8. Data collected by the Commission VMS shall be securely stored by the Secretariat indefinitely and shall be used by the Members and CNCPs, in accordance with the provisions of this CMM, to achieve compliance with CMMs. VMS data may also be used by the Scientific Committee for analysis to support specific scientific advice requested by the Commission for sound fisheries management decision-making in the Convention Area.
- 9. Without prejudice to the principle of flag State responsibilities and duties, each Member and CNCP shall require vessels flying its flag to report VMS data automatically either:
 - a) to the Secretariat via their Member or CNCP's FMC; or
 - b) simultaneously to both the Secretariat and its FMC.
- 10. Each Member and CNCP of SPRFMO as of 2022 has shall notify notified the Secretariat of its chosen means of reporting (i.e., option (a) or (b) under paragraph 9 of this CMM) before the Commission VMS is activated. Any Member or CNCP joining SPRFMO after 01 January 2023 shall ensure they have capacity to manage VMS reporting for vessels in their fleet in accordance with option (a) in paragraph 9 or make arrangements for the simultaneous reporting to both the Secretariat and their FMC as per option (b) in Paragraph 9.
- 11. Members and CNCPs that choose to report under option (a) of paragraph 9 shall automatically forward VMS reports to the Secretariat at an interval not less frequent than hourly.
- 12. All Member and CNCP fishing vessels required to report to the Commission VMS shall use a functioning ALC that complies with the Commission's minimum standards for ALCs in Annex 1.

¹ 'fishing vessel' means any vessel used or intended for fishing, including fish processing vessels, support ships, carrier vessels and any other vessel directly engaged in fishing operations;



13. All Members, CNCPs, the Secretariat, the service provider and the Scientific Committee and its subsidiary bodies shall manage VMS data in accordance with the Security and Confidentiality Requirements in Annex 2 of this CMM and the Maintenance of Confidentiality Requirements of paragraph 6 of CMM 02-2022 (Data Standards).

Procedure for Manual Reporting

14. In the event of failure of automatic reporting, the procedure outlined in Annex 3 of this CMM shall apply.

Measures to Prevent Tampering with ALCs

15. It shall be prohibited to destroy, damage, switch off, render inoperative or otherwise interfere with the ALC unless the competent authorities of the Member or CNCP have authorised its repair or replacement.

16. Where a Member or CNCP has reason to suspect that an ALC does not meet the requirements of Annex 1, or has been tampered with in any way, it shall immediately notify the Secretariat and:

- a) in the event that the ALC is installed onboard a vessel flying the flag of another Member or CNCP, the Member or CNCP shall notify the Member or CNCP concerned;
- b) in the event the vessel is flagged to the Member or CNCP, it shall:
 - i. investigate the suspected breach of this measure as soon as possible;
 - ii. depending on the outcome of the investigation, if necessary suspend the vessel from fishing until an ALC that meets the specifications outlined in Annex 1 is operational onboard the vessel; and
 - iii. communicate actions taken to the Commission, including the outcome of the investigation.

17. Members and CNCPs shall ensure that vessels flying their flag install and use ALCs which fulfil the conditions of Annex 4 of this CMM.

18. Members and CNCPs shall report in the annual Implementation Report of paragraph 5 of CMM 10-2020 (CMS) the methods used to prevent tampering by their individual vessels. Such methods may include the use of ALCs sealed by the Member or CNCP or manufacturer, tamper-evident external or internal seals, or other methods. The Commission shall review the effectiveness of the tampering methods applied by the vessels of Members and CNCPs when reviewing the CMM at the latest at its annual meeting in 2023 in accordance with paragraph 33 of this CMM.

19. Members and CNCPs shall report on their implementation of paragraph 17 through the Implementation Report of paragraph 5 of CMM 10-2020 (CMS), including the brand, model, security features, e.g. "tamper-evident seals installed", and identification of the ALC approved for use for each vessel flying its flag.

20. Nothing in this measure shall prevent a Member or CNCP from applying additional or more stringent measures to prevent tampering of ALCs onboard vessels flying its flag.

Use and Release of VMS Data Requiring the Permission of the Member or CNCP

21. All requests for access to VMS data must be made to the Secretariat by electronic means by a VMS Point of Contact as specified in paragraph 7 of Annex 2 of this CMM. Other than the specific purposes set out in paragraph 24 of this CMM, the Secretariat shall only provide VMS data to a requesting Member or CNCP where the VMS data relates to vessels flagged to other Members or CNCPs that have provided prior written consent through their VMS Point of Contact for the data to be shared. The Secretariat shall only provide VMS data in accordance with the Security and Confidentiality Requirements at Annex 2 of this CMM.

22. A Member or CNCP may request VMS data for their own flagged vessels from the Secretariat and for the purposes described in paragraph 24 using the appropriate template available via the non-public section of the SPRFMO website.

23. Subject to paragraphs 13 and 21, VMS data may also be requested by the Scientific Committee for the purposes described in paragraph 8 using the appropriate template available via the SPRFMO website.



Use and Release of VMS Data not Requiring the Consent of the Member or CNCP

24. Upon request of a Member or CNCP, as applicable, the Secretariat shall only provide VMS data in accordance with the procedure of Paragraphs 25 to 28 and Annex 5 of this CMM without the permission of the Member or CNCP for the exclusive purposes of:
- planning for active surveillance operations and/or inspections at sea within 72 hours of the expected start of the operations;
 - active surveillance operations and/or inspections at sea;
 - supporting search and rescue activities undertaken by a competent Maritime Rescue Coordination Centre (MRCC) subject to the terms of any Arrangement between the Secretariat and the competent MRCC.
25. For the purpose of implementing Paragraph 24 a) and b):
- Inspections at sea will be undertaken in accordance with CMM 11-2015 (Boarding and Inspection);
 - each Member or CNCP, as applicable, shall only make available such VMS data to a Member authorised inspector, and any other government officials for whom it is deemed necessary to access the data;
 - VMS data relevant to the planned or active surveillance operations and/or inspections at sea shall be transmitted by the VMS Point of Contact of the Member or CNCP, as applicable, to the inspectors and government officials in charge of the operations referred to in paragraph 24 a) and b);
 - Members and CNCPs, as applicable, shall ensure that such inspectors and government officials keep the data confidential and only use the data for the purposes described in paragraph 24 a) and b);
 - Members may retain VMS data provided by the Secretariat for the purposes described in paragraph 24 a) and b) until 24 hours after the time that the active operation has concluded. Except in the circumstances outlined in paragraph 25 f), Members shall submit a written confirmation to the Secretariat of the deletion of the VMS data immediately after the 24 hours' period;
 - Members and CNCPs' authorised inspectors and government officials authorities may retain VMS data provided by the Secretariat for the purposes described in paragraph 24 a) and b) for longer than the periods specified in paragraph 25 e) only if it is part of an investigation, judicial or administrative proceeding of an alleged violation of the provisions of the Convention, any CMMs or decisions adopted by the Commission, or domestic laws and regulations. Members shall inform the Secretariat of the purposes and expected timing of the additional period of data retention.
26. For the purpose of paragraph 24 a), Members requesting VMS data shall provide the Secretariat the coordinates describing of the geographic area of the planned surveillance and/or inspection activity. In this case, Members authorised inspectors and government officials shall advise the Secretariat at least 72 hours in advance of the planned commencement of Monitoring, Control and Surveillance (MCS) activities in the notified geographic area of the high seas areas of the Convention Area. In the event that the MCS activities will no longer take place or if the notified geographic area of the high seas has changed, the Secretariat will be promptly notified.
27. For the purpose of paragraph 24 b), the Secretariat shall provide VMS data for vessels detected during surveillance, and/or inspection activity. Members conducting the active surveillance and/or inspection activity shall provide the Secretariat and the VMS Point of Contact of the Member or CNCP with a report including the name of the vessel or aircraft on active surveillance and/or inspection activity. This information shall be made available without undue delay after the surveillance and/or inspection activities are complete.
28. For the purpose of paragraph 24 c), upon the request of a Member or CNCP, the Secretariat shall provide VMS data without the permission of the Member or CNCP for the purposes of supporting search and rescue activities undertaken by a competent MRCC subject to the terms of an arrangement between the



Secretariat and the competent MRCC. The Member or CNCP requesting the information shall ensure that the data will only be used only for the purposes described in this paragraph.

29. A Member or CNCP may request VMS data for the purposes described in paragraph 24 using the appropriate template available via the non-public section of the SPRFMO website.
30. The Commission shall review paragraph 24 ~~at the latest by its annual meeting in 2023 when reviewing the CMM in accordance with paragraph 33 of this CMM~~ to assess the enhanced use of the Commission VMS, as appropriate, as a complementary tool to promote further cooperation amongst Members and CNCP for the purposes of ensuring the long term conservation and sustainable use of the fishery resources in accordance with the provisions of the Convention.
31. Paragraphs 24 to 30 shall be reviewed by the Commission when the Commission adopts a specific SPRFMO high seas inspection regime.

Review

32. At each annual meeting of the Commission, the Secretariat shall provide the Commission with a report on the implementation and operation of the Commission VMS.
33. The Commission shall conduct a review of the implementation of the Commission VMS at its annual meeting in ~~2023-2026~~ and shall consider its efficiency and effectiveness and consider further improvements to the system as required.



ANNEX 1

Minimum Standards for Automatic Location Communicators (ALCs) used in the Commission Vessel Monitoring System

1. The ALC shall continuously, automatically and independently of any intervention by the vessel communicate the following data when operating in the area defined in paragraph 2 of this CMM with at least the level of accuracy specified at paragraph 7 of this Annex and obtained by a satellite-based positioning system:

Category	Data Element	Remarks
Vessel registration	Static unique vessel identifier	For example, country code followed by national vessel registration number
Activity detail	Latitude	Position latitude
Activity detail	Longitude	Position longitude
Message detail	Date	Position date in UTC
Message detail	Time	Position time in UTC

2. ALCs fitted to fishing vessels must be capable of transmitting data at least every 15 minutes.
3. The Member or CNCP shall ensure that its FMC receives VMS positions at least with the frequency adopted according to this CMM and shall be able to request the VMS information at a higher frequency.
4. The Member or CNCP shall maintain a record of all vessel position information reported while these vessels are operational in the Convention Area, such that this information may be used to document vessel activity in the Convention Area, and to validate fishing position information provided by those vessels.
5. Under normal satellite navigation operating conditions, positions derived from the data forwarded must be accurate to within 100 metres.
6. The ALC and/or forwarding service provider must be able to support the ability for data to be sent to multiple independent destinations.

~~a) 7. Members and CNCPs shall ensure that VMS position reports are reported by each of their authorized vessels at least once every hour, if fishing using benthic or benthopelagic trawling², bottom long line gear or potting or if operating within 20 nm of an EEZ boundary;~~

~~b) at least once every four hours in other circumstances²;~~

~~7. The Commission shall review the reporting frequency applicable to vessels fishing in the Convention Area as part of the review referenced in accordance with paragraph 33, at the latest at its annual meeting in 2023.~~

² Benthopelagic trawling is interpreted here to mean trawling with a mid-water net where the net has a likelihood of coming into contact with the seabed at any time during the trawling operation.

³ In February 2013 China advised that it was not able to report more frequently than twice daily according to domestic regulation. In January 2018, China advised that it is now able to report as frequently as every four hours according to current domestic legislation.



8. ANNEX 2

Security and Confidentiality Requirements

Security Provisions Applicable to all Members, CNCs and the Secretariat

1. The provisions of this Annex shall apply to all VMS data received pursuant to this CMM.
2. All VMS data received by the Commission VMS shall be treated as confidential information.
3. All Members, CNCs, the Secretariat and the Commission's VMS provider shall ensure the secure treatment of VMS data in their respective electronic data processing facilities, in particular where the processing involves transmission over a network.
4. All Members, CNCs and the Secretariat shall implement appropriate technical and organisational measures to protect reports and messages against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, and against all inappropriate forms of processing. The following features shall be mandatory:
 - a) System access control: the system has to withstand a break-in attempt from unauthorised persons;
 - b) Authenticity and data access control: the system has to be able to limit the access of authorised parties to only the data necessary for their task, via a flexible user identification and password mechanism;
 - c) VMS data must be securely communicated: communication between Members, CNCs and the Secretariat or the VMS provider for the purpose of this CMM shall use secure Internet protocols SSL, DES or verified certificates obtained from the Secretariat;
 - d) Data security: all VMS data that enter the system must be securely stored for the required time, and shall not be tampered with;
 - e) The Secretariat shall design security procedures to address access to the system (both hardware and software), system administration and maintenance, backup and general usage of the system for consideration by the Commission.
5. Each Member, CNC and the Secretariat shall nominate a security system administrator. The security system administrator shall review the log files generated by the software for which they are responsible, properly maintain the system security for which they are responsible, restrict access to the system for which they are responsible as deemed needed and, in the case of Members or CNCs, also act as a liaison with the Secretariat in order to solve security matters.
6. Members and CNCs as applicable shall submit a written confirmation of the deletion of the VMS data in accordance with this CMM. The Secretariat shall take all the necessary steps to ensure that the requirements pertaining to the deletion of VMS data handled by the Secretariat are complied with.
7. Each Member and CNC shall designate a Point of Contact for the purposes of any communication regarding the VMS system ("VMS Point of Contact"). Any subsequent changes to the contact information shall be notified to the Secretariat within 21 days after such changes take effect. The Secretariat shall promptly notify Members and CNCs of any such changes.
8. The Secretariat shall establish and maintain a register of Points of Contact based on the information submitted by the Members and CNCs. The register and any subsequent changes shall be published promptly on the "Members only" area of the SPRFMO website.
9. The Secretariat shall inform all Members and CNCs of the measures taken by the Secretariat to comply with these security and confidentiality requirement provisions at the annual meeting following the establishment of the Commission VMS. Such measures shall ensure a level of security appropriate to the risks represented by the processing of VMS data.



10. Submission of VMS data for the purpose of this CMM shall use cryptographic protocols to ensure secure communications.
11. The Security System Administrator of the Secretariat shall review the log files generated by the software, properly maintain the system security, and restrict access to the system as deemed necessary. The Security System Administrator shall also act as a liaison between the VMS Point of Contact and the Secretariat in order to resolve security matters.



ANNEX 3

SPRFMO Rules on the manual reporting in the SPRFMO Convention Area

1. For Members and CNCPs reporting to Commission VMS via option (a) of Paragraph 9 (i.e., via their FMC):

- a) In the event of non-reception of four consecutive, expected programmed VMS positions, and where the ~~Member or CNCP FMC Secretariat~~ has exhausted all reasonable steps⁴ to re-establish normal automatic reception of VMS positions ~~from the primary ALC or other means of automatic electronic tracking⁵, the Secretariat shall notify the Member or CNCP whose flag the vessel is flying. That Member or CNCP shall immediately direct the vessel Master to begin manual reporting and continue until normal automatic reception of VMS positions are such time that automatic reporting is re-established.~~
- b) The manual report(s) shall be sent ~~[by the vessel]~~ to their FMC, and the FMC will update the information to Commission VMS electronically via their usual means for sending VMS positional data to Commission VMS.
- c) In the case of technical difficulties with electronically updating the VMS positional data to Commission VMS, the Member or CNCP shall advise the Secretariat of the issue and submit the VMS data to the Secretariat as an excel or csv attachment for manual importing into the VMS database.

2. For Members and CNCPs reporting to Commission VMS via option (b) of Paragraph 9 (simultaneous to the Secretariat and the FMC):

- a) In the event of non-reception of four consecutive, expected programmed VMS positions, and where the Secretariat has exhausted all reasonable steps⁶ to re-establish normal automatic reception of VMS positions from the primary ALC, the Secretariat shall notify the Member or CNCP whose flag the vessel is flying. That Member or CNCP shall seek to establish alternate automatic electronic tracking of the vessel, if possible, otherwise direct the vessel Master to immediately begin manual reporting and continue until ~~such time that normal automatic reception of VMS positions are reporting is re-established.~~
- b) The positional data reports from the Member or CNCPs alternate electronic tracking will be updated directly to Commission VMS if possible, otherwise summarized and sent to the Secretariat via the Members or CNCPs FMC for manual importing into the VMS database. Manual report(s) shall be sent by the vessel to their FMC and the Secretariat simultaneously. For reports being directed to the Secretariat, vessels shall email these messages to vms@sprfmo.int.

⁴The Member or CNCP, in coordination with the Secretariat and through communication with the vessel master as appropriate, will endeavour to re-establish normal automatic reception of VMS positions. If such efforts reveal that the vessel is successfully reporting to the Member or CNCP's VMS (indicating that the vessel's ALC hardware is functional), the Secretariat, in coordination with the Member or CNCP will take additional steps to re-establish automatic reporting to the Commission VMS.

⁵ That meet the minimum standards to prevent tampering as outlined in Annex 4

⁶ The Member or CNCP, in coordination with the Secretariat and through communication with the vessel master as appropriate, will endeavour to re-establish normal automatic reception of VMS positions (while respecting the standards of Annex 4). If such efforts reveal that the vessel is successfully reporting to the Member or CNCP's VMS (indicating that the vessel's ALC hardware is functional), the Secretariat, in coordination with the Member or CNCP will take additional steps to re-establish automatic reporting to the Commission VMS.



3. Following the receipt of a direction from a Member or CNCP to a vessel to begin manually reporting in accordance with paragraph 1 and 2 of this Annex, the Member or CNCP of the vessel shall ensure that the vessel Master manually records the vessel's position hourly and reports its position the positions at least every 4-8 4 hours.
- ~~4.4.~~ If automatic reporting to the SPRFMO VMS has not been re-established within ~~60-30~~ days of the commencement of manual reporting or alternative automatic electronic tracking, that Member or CNCP shall order the vessel to cease fishing, stow all fishing gear and return immediately to port in order to undertake repairs.
- ~~2.5.~~ The vessel may recommence fishing in the SPRFMO Convention Area only when the ALC has been confirmed as operational by the Secretariat. Four consecutive, programmed VMS positions must have been received by the Secretariat to confirm that the ALC/Mobile Transceiver Unit is fully operational.
- ~~3.6.~~ The format for manual reports to be used is as below. For reports being directed to the Secretariat, ~~V~~vessels are encouraged to use email as the primary means of communication, and shall send these messages to vms@sprfmo.int.
- ~~4.7.~~ The standard format for manual position reporting in the event of ALC malfunction or failure shall be as follows:
- a) IMO number (if applicable)
 - b) International Radio Call Sign
 - c) Vessel Name
 - d) Vessel Master's name
 - e) Position Date (UTC)
 - f) Position Time (UTC)
 - g) Latitude (Decimal Degrees with at least the level of accuracy specified at paragraph 5 of Annex 1)
 - h) Longitude (Decimal Degrees with at least the level of accuracy specified at paragraph 5 of Annex 1)
 - i) Course (if possible)
 - ~~h~~j) Speed (if possible)
 - ~~i~~ Activity (Fishing/Transit/Transshipping)
- ~~5.8.~~ Members and CNCPs are encouraged to carry more than one ALC when operating in the SPRFMO Convention Area in order to avoid the need to manually report if the primary ALC fails.
- ~~6.9.~~ The Secretariat shall publicise vessels that are reporting in accordance with this Annex on the SPRFMO Website.



ANNEX 4

Minimum Standards to prevent tampering with ALC Units Automatic Location Communicators (ALCs)

1. ALCs fitted to fishing vessels must be protected so as to preserve the security and integrity of data referred to in paragraph 1 of Annex 1 in accordance to the provisions of this Annex.
2. ALCs must be of a type and configuration that prevent the input or output of false positions, are not capable of being over-ridden, whether manually, electronically or otherwise and are capable of detecting and transmitting satellite alerts in the case of a tampering event.
3. It must not be reasonably possible for anyone, other than the FMC, to alter any of the VMS data stored in the ALC, including the frequency of position reporting to the FMC.
4. Storage of information within the ALC must be safe, secure and integrated under normal operating conditions.
5. Any features built into the ALC or terminal software to assist with servicing shall not allow unauthorised access to any areas of the ALC that could potentially compromise the operation of the VMS.
6. The satellite navigation decoder and transmitter shall be fully integrated and housed in the same tamper-proof physical enclosure.
7. In the case that the antenna is mounted separately from the physical enclosure, a single common antenna shall be used for both satellite navigation decoder and transmitter, and the physical enclosure shall be connected using a single length of unbroken cable to the antenna.
8. All ALCs shall be installed on vessels in accordance with their manufacturer's specifications and applicable standards.



ANNEX 5

Process for the Use and Release of VMS Data

1. A Member or CNCP or as established in the arrangement between the Secretariat and the competent MRCC seeking access to Commission VMS data for the purposes outlined in paragraphs 21 and 24 of this CMM shall forward a request to the Secretariat, through its VMS Point(s) of Contact, indicating the purpose(s) for which the data is sought and the time period covered by the VMS data. The request shall indicate the commitment from the Member or CNCP to respect the Security and Confidentiality requirements of Annex 2 of this CMM as applicable. The request must be submitted at least 5 working days in advance of the intended use except for the purposes of paragraph 24 of this CMM.

Use and Release of VMS Data Requiring the Permission of the Member or CNCP

2. For the purposes of paragraphs 21, 22 and 23 of this CMM, the Secretariat shall immediately forward the request to the relevant VMS Point(s) of Contact from whom access to VMS data is requested. The release of the VMS data to the requesting Member or CNCP shall only be permitted with approval from the Member or CNCP who owns the VMS data. A Member or CNCP who refuses the request for VMS shall send the reasons for the refusal in writing to the Secretariat within 15 days of the communication of the request by the Secretariat.
3. Members and CNCPs may restrict access to their VMS data to exclude fleets, individual vessels, geographical areas, time periods and others subject to the capacity of the Secretariat and/or their contracted VMS provider to filter the data.
4. Members or CNCPs shall only use the VMS data for the purposes indicated in the request and which are agreed by the other Member or CNCP and shall not disclose the data in full or in part to any third party. Any additional restrictions for VMS data access established by Members or CNCPs in accordance with paragraph 3 of this Annex shall also be complied with.

Use and Release of VMS Data Without the Permission of the Member or CNCP

5. For the purposes of paragraph 24 of this CMM, the Secretariat shall, no later than 7 days after the provision of VMS data, inform the VMS Points of Contact for which access to VMS data has been requested:
 - a) The requesting Member, CNCP or MRCC;
 - b) The date the request was made to the Secretariat;
 - c) The proposed purpose for the use of that VMS data⁷;
 - d) The anticipated length of time that the VMS data will be required⁸.
6. In accordance with paragraph 25 f) of this CMM, in the event of retention of the VMS data for longer periods than specified in the request, the Secretariat shall immediately inform the relevant VMS Points of Contact of the purposes of the retention and its expected timing.
7. The Secretariat shall immediately notify the relevant VMS Points of Contact when the requesting Member or CNCPs has ceased their use of that VMS data.
8. The Secretariat shall maintain a record of the requests received regarding use and release of VMS data for the purposes of paragraph 24 of this CMM including the requesting member, date of the request, purpose and length of time for which the data was required. The Secretariat shall include in the report on the

⁷ 'Proposed purpose' means the purpose identified by the requesting Member or CNCP pursuant to paragraph 24 of this CMM

⁸ This shall not include spatial and temporal operational details



implementation and operation of the Commission VMS of paragraph 32 of this CMM information on the number and purposes of VMS data access requests received.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7f

Conservation and Management Measure 08-2023 Gillnets

(COMM 11 – Prop 02)

ADOPTED

CMM 08-20~~23~~¹⁹

Conservation and Management Measures for Gillnets in the SPRFMO Convention Area

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECOGNISING that the Convention calls on the Commission, in giving effect to the objectives of the Convention, to adopt Conservation and Management Measures (CMMs) that take account of international best practices and protect the marine ecosystem, particularly ecosystems with long recovery times following disturbance, from significant adverse impact of unregulated and unmanaged fishing practices (Articles 3(1)(a)(i) and (vii) and 20(1)(d));

FURTHER RECOGNISING Article 3(1)(b) and (2) which calls on the Commission to apply the precautionary approach and ecosystem based approach to fisheries under the mandate of the Convention;

MINDFUL of Article 31(1) of the Convention that calls on the Commission to cooperate with other regional fisheries management organisations (RFMOs), the FAO and other specialised agencies of the United Nations and other relevant organisations on issues of mutual interest;

RECALLING that Parties to the 8th International Consultation on the establishment of the South Pacific RFMO (November 2009) adopted an interim measure for deepwater gillnet fishing in the Convention Area which came into effect on 1 February 2010;

NOTING Resolution 61/105, adopted by UNGA at the 61st Plenary Meeting on 8 December 2006 and subsequent resolutions of the United Nations General Assembly (UNGA) that call on states and regional fisheries management organisations to regulate bottom fisheries and implement measures in accordance with the precautionary approach and ecosystem approaches to fisheries management;

FURTHER NOTING Resolution 46/215 *Large-scale pelagic drift-net fishing and its impact on the living marine resources of the world's oceans and seas* adopted by the UNGA at the 79th Plenary Meeting in 1991;

CONCERNED by the possible impact of large-scale pelagic gillnets and deepwater gillnets on fishery resources, bycatch species and deep sea habitats, including the impact of lost and/or abandoned gillnets;

hereby *ADOPTS* the following CMM in accordance with Articles 8 and 20 of the Convention:

Gillnets

1. Members and CNCPs shall prohibit vessels flying their flag from using large-scale pelagic driftnets¹ and all deepwater gillnets² in the Convention Area.
2. Members and CNCPs whose flagged vessels seek to transit the Convention Area with gillnets onboard shall:
 - a) Give at least ~~36-72~~ hours advanced notice to the Secretariat prior to entering the Convention Area. In particular, Members shall report the expected entry and exit dates and length of gillnet carried onboard;

¹ 'Large-scale pelagic driftnets' are defined as a gillnet or other net or a combination of nets which is more than 2.5 kilometres in length the purpose of which is to enmesh, entrap or entangle fish by drifting on the surface or in the water.

² 'Deepwater gillnets' (including trammel net, set nets, anchored nets, sink nets) are defined as strings of single, double or triple netting walls, held vertically, on or near the bottom, in which fish will gill, entangle or enmesh. Deepwater gillnets consist of single or, less commonly, double or triple netting mounted together on the same frame ropes. Several types of nets may be combined in one gear. These nets can be used either alone or, as is more usual, in large numbers placed in line ('fleets' of nets). The gear can be set, anchored to the bottom or left drifting, free or connected with the vessel.



- b) Ensure their vessels operate a vessel monitoring system polling at least once every ~~two~~ hours while in the Convention Area;
 - c) Submit VMS position reports automatically to their FMC while transiting the Convention Area,
 - d) Ensure their FMC automatically forwards VMS reports to the SPRFMO FMC at an interval not less frequent than hourly to the Secretariat within 30 days of the vessel leaving the Convention Area;
 - e) In situations where automatic reporting is not possible, ensures that the “Procedures for Manual Reporting”, as outlined in CMM 06 (Commission VMS), are applied; and
 - f) If gillnets are accidentally lost and/or abandoned overboard, report the date, time, position (using WGS84) and length (metres) of gillnets lost to the Executive Secretary as soon as possible and within 48 hours of the gear being lost using the process described for ALDFG³ in CMM 17 (Marine pollution).
3. -This CMM shall be reviewed by the Commission as needed.

³ Abandoned, Lost or Otherwise Discarded Fishing Gear



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7g

Conservation and Management Measure 11-2023 Boarding and Inspection

(COMM 11 – Prop 16_rev1)

ADOPTED

CMM 11-2023

**Conservation and Management Measure for
High Seas Boarding and Inspection Procedures for the
South Pacific Regional Fisheries Management Organisation**

(Supersedes CMM 11-2015)

The Commission of the South Pacific Regional Fisheries Management Organisation;

MINDFUL of Article 27 of the Convention and the obligations therein to establish appropriate cooperative procedures to ensure compliance with the Convention and the Conservation and Management Measures (CMMs) adopted under the Convention;

CERTAIN that a specific SPRFMO at sea inspection measure for inspection of vessels in the Convention Area will greatly assist in furthering the objective of the Convention;

RECALLING the explicit commitments given by Cooperating non-Contracting Parties (CNCs) in accordance with the “Rules for Cooperating non-Contracting Parties” (Decision 2-2016⁶³) paragraph 3(c);

ADOPTS the following CMM in accordance with Articles 8 and 27 of the Convention to establish boarding and inspection procedures in the Convention Area:

DEFINITIONS

1. For the purposes of interpreting and implementing these procedures, the following definitions shall apply:
 - a. “Convention” means the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean;
 - b. “Commission” means the South Pacific Regional Fisheries Management Organisation established under Article 6 of the Convention;
 - c. “Authorities of the Inspection Vessel” means the authorities of the Contracting Party under whose flag the Inspection Vessel is flying;
 - d. “Authorities of the Fishing Vessel” means the authorities of the Contracting Party or CNCP under whose jurisdiction the fishing vessel is operating;
 - e. “Authorised Inspection Vessel” means any vessel included in the Commission’s register of vessels established under paragraph 11 and authorised to engage in boarding and inspection activities pursuant to these procedures;
 - f. “Authorised Inspector” means an inspector trained and designated by the authorities responsible for boarding and inspection included in the Commission register and authorised to conduct boarding and inspection activities pursuant to these procedures;
 - g. “Fishing activity” means the activities described under Article 1 (g) of the Convention;
 - h. “Fishing Vessels” means any vessel described under Article 1 (h) of the Convention.



PURPOSE

2. Boarding and inspection and related activities conducted pursuant to this CMM shall be for the purpose of ensuring compliance with the provisions of the Convention and the conservation and management measures adopted by the Commission and in force.

AREA OF APPLICATION

3. These procedures shall apply throughout the Convention Area, which consists of the high seas areas of the South Pacific Ocean as specified in Article 5 of the Convention.

GENERAL OBLIGATIONS

4. Each Contracting Party may, subject to these procedures, carry out boarding and inspection in the Convention Area of fishing vessels, ~~flying the flag of a Contracting Party~~, engaged in or reported to have engaged in fishing for fisheries resources regulated pursuant to the Convention.

~~5. Each Contracting Party may, subject to these procedures, carry out boarding and inspection in the Convention Area of fishing vessels of Cooperating non Contracting Parties (CNCPs) engaged in or reported to have engaged in fishing for fisheries resources regulated pursuant to the Convention, consistent with the commitments of CNCPs related to Decision 2 2018 (Rules for Cooperating non Contracting Parties).~~

6. These procedures shall also apply in their entirety, mutatis mutandis, as between a Contracting Party and a Fishing Entity, subject to a notification to that effect to the Commission from the Contracting Party concerned.

7. Each ~~Member and CNCP~~ ~~Contracting Party~~ shall ensure that Fishing Vessels flying its flag accept boarding and inspection by Authorised Inspectors in accordance with these procedures. Such Authorised Inspectors shall comply with these procedures in the conduct of any such activities.

INTERPRETATION AND IMPLEMENTATION

8. These procedures are intended to implement and give effect to, and are to be read consistently with the Convention, Article 27(1)(b).

9. These procedures shall be implemented in a transparent and non-discriminatory manner, taking into account such factors as, *inter alia*:

- a. the presence of observers on board a vessel and the frequency and results of past inspections; and
- b. the full range of measures to monitor compliance with the provisions of the Convention and the Commission's conservation and management measures, ~~including inspection activities carried out by authorities of Contracting Parties in respect of their own flag vessels.~~

PARTICIPATION

10. Each Contracting Party that intends to carry out boarding and inspection activities pursuant to these procedures shall so notify the Commission, through the Executive Secretary, and shall provide the following:

- a. with respect to each Authorised Inspection Vessel under these procedures:
 - i) details of the vessel: name, description, photograph, registration number, port of registry (and, if different from the port of registry, port marked on the vessel hull), vessel flag, IMO number (if issued), international radio call sign, except where not applicable for military vessels);
 - ii) notification that the inspection vessel is clearly marked and identifiable as being on government service;
- b. with respect to Authorised Inspectors it designates pursuant to these procedures:



- i) the name(s) of the authorities responsible for boarding and inspection;
- ii) notification that the Authorised Inspectors are fully familiar with the fishing activities to be inspected and the provisions of the Convention and conservation and management measures in force;
- iii) notification that the Authorised Inspectors have received and completed training in carrying out boarding and inspection activities at sea, including in accordance with any standards and procedures as may be adopted by the Commission;
- iv) an example of the credentials issued to its Authorised Inspectors.

11. The Commission shall establish and the Secretariat shall maintain a register of all Authorised Inspection Vessels and Authorities of the Inspection Vessel. The register shall be posted on the Commission website. The Secretariat shall circulate without delay changes to the lists of Authorised Inspection Vessels and Authorities of the Inspection Vessel and update the registry upon receiving notifications consistent with paragraph 10.

12. Only vessels and [authorities or](#) inspectors from authorities listed on the Commission's register are authorised under these procedures to board and inspect fishing vessels flagged to Contracting Parties or Cooperating non-Contracting Parties fishing for fisheries resources regulated pursuant to the Convention. Each Member and CNCP of the Commission shall take necessary measures to ensure that these lists are circulated in a timely manner to each of its fishing vessels operating in the Convention Area.

13. Where military vessels are used as a platform for the conduct of boarding and inspection, the Authorities of the Inspection Vessel shall ensure that the boarding and inspection is carried out by Authorized Inspectors fully trained in fisheries enforcement procedures and duly authorised for this purpose under national laws, and that boardings from such military vessels by Authorised Inspectors conform to the procedures contained within this CMM.

14. To enhance the effectiveness of the Commission's boarding and inspection procedures, and to maximize the use of trained Authorised Inspectors, Contracting Parties may identify opportunities to place Authorised Inspectors on Authorized Inspection Vessels of another Contracting Party. Where appropriate, Contracting Parties should seek to conclude bilateral or multilateral arrangements to this end or otherwise facilitate communication and coordination between them for the purpose of implementing these procedures.

PROCEDURES

15. The Commission shall develop a SPRFMO inspection flag and boarding and inspection form template in the intersessional period following the 11th Meeting of the Commission. Once adopted by the Commission, the SPRFMO inspection flag shall be flown by Authorised Inspection Vessels, in clearly visible fashion, when carrying out activities under this CMM.

16. Authorised Inspectors shall carry an identity card identifying the inspector as authorised to carry out boarding and inspection procedures under the auspices of the Commission and in accordance with these procedures. The identity card shall be in the same form as the example of credentials provided by the relevant Contracting Party under paragraph 10(b)(iv) of this CMM.

17. An Authorised Inspection Vessel that intends to board and inspect a fishing vessel in the Convention Area that is engaged in or reported to have engaged in fishing regulated pursuant to the Convention shall, prior to initiating the boarding and inspection:

- a. make best efforts to establish contact with the fishing vessel by radio, by the appropriate International Code of Signals or by other accepted means of alerting the vessel;
- b. provide the information to identify itself as an Authorised Inspection Vessel: name, registration number, international radio call sign, Authority of the Inspection Vessel, vessel flag, IMO number (if issued), and contact frequency;



c. communicate to the master of the vessel its intention to board and inspect the vessel under the authority of the Commission and pursuant to these procedures, making their best efforts, using any available means, to communicate with the master of the fishing vessel(s) in a language that the master can understand; and

d. initiate notice at the earliest possible time through the Authorities of the Inspection Vessel of the boarding and inspection to the Authorities of the Fishing Vessel.

18. In carrying out boarding and inspection pursuant to these procedures, the Authorised Inspection Vessel and Authorised Inspectors shall make their best efforts, using any available means, to communicate with the master of the fishing vessel(s) in a language that the master can understand. In order to facilitate communications between the Authorised Inspectors and the master of the Fishing Vessel, the Commission Secretariat shall develop a standardized questionnaire, which once adopted shall be translated into multiple languages and circulated to all Contracting Parties with Authorised Inspection Vessels.

19. Authorised Inspectors shall have the authority to inspect the Fishing Vessel, its license, gear, equipment, records, facilities, fish and fish products and any relevant documents necessary to verify compliance with the conservation and management measures in force pursuant to the Convention.

20. Boarding and inspection pursuant to these procedures shall:

a. limit the number of inspectors to the degree necessary;

b. be carried out in accordance with internationally accepted principles of good seamanship so as to avoid risks to the safety of fishing vessels and crews;

c. be conducted as much as possible in a manner so as not to interfere unduly with the lawful operation of the fishing vessel;

d. take reasonable care to avoid action that would adversely affect the quality of the catch; and

e. not be conducted in such manner as to constitute harassment of a fishing vessel's officers, crew, or observers.

21. In the conduct of a boarding and inspection, the Authorized Inspectors shall:

a. present their identity card to the master of the Fishing Vessel;

b. not interfere with the master's ability to communicate with the Authorities of the Fishing Vessel;

c. complete the inspection of the vessel and disembark within 4 (four) hours of embarking unless evidence of a serious violation is found;

d. collect and clearly document any evidence they believe indicates a violation of measures in force pursuant to the Convention;

e. provide to the master prior to leaving the Fishing Vessel a copy of an interim report on the boarding and inspection including any objection or statement which the master wishes to include;

f. provide a full report on the boarding and inspection to the Authorities of the Fishing Vessel and the Secretariat, pursuant to paragraph 27, which shall also include any master's objection or statement;

g. promptly leave the vessel following completion of the inspection if they find no evidence of a serious violation.

22. During the conduct of a boarding and inspection, Contracting Parties shall require that the master of the fishing vessel flying their flag:

a. accept and facilitate prompt and safe boarding by the Authorised Inspectors;

b. follow internationally accepted principles of good seamanship so as to avoid risks to the safety of Authorised Inspection Vessels and Authorised Inspectors;



- c. cooperate with and assist in the inspection of the vessel pursuant to these procedures;
- d. not assault, resist, intimidate, interfere with, or unduly obstruct or delay the Authorised Inspectors in the performance of their duties;
- e. allow the Authorized Inspectors to communicate with the crew of the Authorised Inspection Vessel, the Authorities of the Inspection Vessel, any embarked observers, as well as with the crew and authorities of the fishing vessel being inspected;
- f. provide the Authorized Inspectors onboard with reasonable facilities, including, where appropriate, food and accommodation; and
- g. facilitate safe disembarkation by the Authorized Inspectors.

23. If the master of a fishing vessel refuses to allow an Authorised Inspector to carry out a boarding and inspection in accordance with these procedures, such master shall offer an explanation of the reason for such refusal. The Authorities of the Inspection Vessel shall immediately notify the Authorities of the Fishing Vessel, as well as the Commission, of the master's refusal and any explanation.

24. The Authorities of the Fishing Vessel, except where relevant international measures, procedures, and practices relating to safety at sea make it necessary to delay the boarding and inspection, shall direct the master to accept the boarding and inspection. If the master does not comply with such direction, the relevant Member or CNCP shall suspend the vessel's authorization to fish and order the vessel to return immediately to port. The Member or CNCP shall immediately notify the Authorities of the Inspection Vessel and the Commission of the action it has taken in these circumstances.

USE OF FORCE

25. The use of force shall be avoided except when and to the degree necessary to ensure the safety of the Authorized Inspectors and where the Authorized Inspectors are obstructed in the execution of their duties.¹ The degree of force used shall not exceed that reasonably required under the circumstances.

26. Any incident involving the use of force shall be immediately reported to the Authorities of the Fishing Vessel by the Authorized Inspector as well as to the Executive Secretary for distribution to the Commission.

INSPECTION REPORTS

27. Authorised Inspectors shall be required to prepare a full report on each boarding and inspection they carry out pursuant to these procedures in accordance with a format specified by the Commission, including any supporting information and any statement from the master of the fishing vessel. The Authorities of the Inspection Vessel from which the boarding and inspection was carried out shall transmit a copy of the boarding and inspection report to the Authorities of the Fishing Vessel subject to the inspection, as well as the Secretariat, within 7 (seven) full working days of the completion of the boarding and inspection. Where it is not technically possible for the Authorities of the Inspection Vessel to provide such report to the Authorities of the Fishing Vessel within this timeframe, the Authorities of the Inspection Vessel shall inform the Authorities of the Fishing Vessel and shall specify the time period within which the report will be provided.

28. The report shall include the name(s) and authority of the inspector(s) and clearly identify any observed activity or condition that the Authorised Inspectors believe to be a violation of the Convention or

¹ Only when the personal safety of the Authorized Inspectors whose authorization has been duly verified is endangered or their normal inspecting activities are obstructed by the threat of violence by masters or crew members of the fishing vessel under inspection, may the inspectors take appropriate compulsory measures necessary to stop such threat of violence. Any force by the Authorized Inspectors will be only the force necessary to stop the threat of violence that was raised.



conservation and management measures in force and indicate the nature of specific factual evidence of such violation.

SERIOUS VIOLATIONS

29. In the case of any boarding and inspection of a fishing vessel in which the Authorised Inspectors note an activity or condition that would constitute a serious violation, as defined in Article 1(n) of the Convention and paragraph 33 of this measure, the Authorities of the Inspection Vessels shall be required to without delay notify the Authorities of the Fishing Vessel, directly as well as through the Secretariat.

30. Upon receipt of a notification under paragraph 29, the Authorities of the Fishing Vessels shall without delay:

- a. investigate and, if the evidence warrants, take enforcement action against the Fishing Vessel in question and so notify the Authorities of the Inspection Vessel, as well as the Secretariat; or
- b. authorise the Authorities of the Inspection Vessel to undertake the investigation of the alleged serious violation and so notify the Secretariat.

31. In the case of 30(a) above, the Authorities of the Inspection Vessel shall be required to provide, as soon as practicable, the specific evidence collected by the Authorised Inspectors to the Authorities of the Fishing Vessel.

32. In the case of 30(b) above, the Authorities of the Inspection Vessel shall be required to provide the specific evidence collected by the Authorised Inspectors, along with the results of their investigation, to the authorities of the Fishing Vessel immediately upon completion of the investigation.

33. For the purposes of these procedures, a serious violation means the following violations of the provisions of the Convention or conservation and management measures adopted by the Commission:

- a. fishing without a valid license, permit or authorization issued by the Authorities of the Fishing Vessel, in accordance with Article 25 of the Convention;
- b. significant failure to maintain records of catch and catch-related data in accordance with the Commission's reporting requirements or significant misreporting of such catch and/or catch-related data;
- c. fishing in a closed area;
- d. fishing during a closed season;
- e. intentional taking or retention of species in contravention of any applicable conservation and management measure adopted by the Commission;
- f. significant violation of catch limits or quotas in force;
- g. using prohibited fishing gear;
- h. falsifying or intentionally concealing the markings, identity or registration of a fishing vessel;
- i. concealing, tampering with or disposing of evidence relating to investigation of a violation;
- j. multiple violations which taken together constitute a serious disregard of measures in force pursuant to the Commission;
- k. refusal to accept a boarding and inspection, other than as provided in accordance with paragraphs 23 and 24;
- l. assault, resist, intimidate, sexually harass, interfere with, or unduly obstruct or delay an Authorised Inspector;
- m. intentionally tampering with or disabling the vessel monitoring system; and



n. such other violations as may be determined by the Commission, once these are included and circulated in a revised version of these procedures, or as specified as a serious violation in any subsequent measure adopted by the Commission.

ENFORCEMENT

34. Any evidence obtained as a result of a boarding and inspection pursuant to these procedures with respect to violation by a Fishing Vessel of the Convention or conservation and management measures adopted by the Commission and in force shall be referred to the Authorities of the Fishing Vessel for action in accordance with the provisions of Article 25(3)(c)-(e) of the Convention.

35. For the purposes of these procedures, the Authorities of the Fishing Vessels shall regard interference by their fishing vessels, captains or crew with an Authorised Inspector or an Authorised Inspection Vessel in the same manner as any such interference occurring within its exclusive jurisdiction.

ANNUAL REPORTS

36. Contracting Parties that authorise inspection vessels to operate under these procedures shall report annually to the Commission on the boarding and inspections carried out by its Authorised Inspection Vessels, as well as upon alleged violations observed.

37. Members and CNCPs shall include in their annual statement of compliance within their Annual Report to the Commission under Article 24(2) of the Convention action that they have taken in response to boarding and inspections of fishing vessels flying their flag that resulted in observation of alleged violations, including any proceedings instituted and sanctions applied.

OTHER PROVISIONS

38. Authorised Inspection Vessels, while carrying out activities in accordance with these procedures, shall aim to identify fishing vessels of non-Members, non-CNCPs, or vessels without nationality undertaking fishing activities in the Convention Area. Any such vessels identified shall be immediately reported to the Secretariat for notification to the Commission.

39. The Authorised Inspection Vessel shall attempt to inform any fishing vessel identified pursuant to paragraph 38 that has been sighted or identified as engaging in fishing activities that are undermining the effectiveness of Convention that this information will be sent to the Executive Secretary for distribution to the Commission and the flag state of the vessel in question.

40. If warranted, the Authorised Inspectors may request permission from the master of the fishing vessel and/or the relevant flag state authorities to board a fishing vessel identified pursuant to paragraph 38. If the fishing vessel master or flag state authorities consent to a boarding, the findings of any subsequent inspection shall be transmitted to the Secretariat. The Secretariat shall distribute this information to the Commission Members, as well as to the fishing vessel's flag state authorities where practicable.

41. Contracting Parties shall be liable for damage or loss attributable to their action in implementing these procedures when such action is unlawful or exceeds that reasonably required in the light of available information.

COMMISSION COORDINATION AND OVERSIGHT

42. Authorised Inspection Vessels in the same operational area should seek to establish regular contact for the purpose of sharing information on areas in which they are patrolling, on sightings and on boarding and inspections they have carried out, as well as other operational information relevant to carrying out their responsibilities under these procedures.



43. The Commission shall keep under continuous review the implementation and operation of these procedures, including review of Annual Reports relating to these procedures provided by Members and CNCPs.

44. In applying these procedures, Contracting Parties may seek to promote optimum use of the Authorised Inspection Vessels and Authorised Inspectors by:

- a. identifying priorities by area and/or by fishery for boarding and inspections pursuant to these procedures;
- b. ensuring that boarding and inspection on the high seas is fully integrated with the other monitoring, compliance and surveillance tools available pursuant to the Convention;
- c. ensuring non-discriminatory distribution of boarding and inspections in the Convention Area among Fishing Vessels of Members and CNCPs without compromising the opportunity of Contracting Parties to investigate possible serious violations; and
- d. taking into account high seas enforcement resources assigned by Members and CNCPs to monitor and ensure compliance by their own Fishing Vessels, particularly for small boat fisheries whose operations extend onto the high seas in areas adjacent to waters under their jurisdiction.

SETTLEMENT OF DISAGREEMENTS

45. In the event of a disagreement concerning the application or implementation of these procedures two or more Members and/or CNCPs ("the parties"), the parties concerned shall consult in an attempt to resolve the disagreement.

46. If the disagreement remains unresolved following the consultations, the Executive Secretary shall, at the request of the parties concerned, and with the consent of the Commission, refer the disagreement to the Compliance and Technical Committee (CTC). The CTC shall establish a panel of five representatives, acceptable to the parties to the disagreement, to consider the matter.

47. A report on the disagreement shall be drawn up by the panel, provided to the concerned parties, and forwarded through the CTC Chair to the Executive Secretary for distribution to the Commission within two months of the CTC meeting at which the matter is reviewed.

48. Upon receipt of such report, the Commission may provide appropriate advice with respect to any such disagreement for the consideration of the Members or CNCPs concerned.

49. Application of these provisions for the settlement of disagreements, including with respect to the CTC panel reports and any advice provided by the Commission, shall be non-binding. These provisions shall not prejudice the rights of any [Member Contracting Party](#) to use the dispute settlement procedures provided in the Convention.

[50. This measure shall come into force on 1 October 2023.](#)



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7h Conservation and Management Measure 12-2023 Transshipment

(COMM 11 – Prop 10_rev5)

ADOPTED

CMM 12-2023~~0~~

**Conservation and Management Measure for the regulation of
Transshipment and Other Transfer Activities**

(Supersedes CMM 12-20~~2018~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING that Article 1(1)(o) of the Convention defines “transshipment” as the unloading of all or any of the fishery resources or fishery resource products derived from fishing in the Convention Area on board a fishing vessel to another fishing vessel either at sea or in port;

RECOGNISING that transshipment at sea is a common global practice, but that unregulated and unreported transshipment of catches of fishery resources, in particular on the high seas, contributes to distorted reporting of catches of such stocks and supports illegal, unreported and unregulated (IUU) fishing in the Convention Area;

RECOGNISING the importance of adequately regulating, monitoring and controlling transshipment at sea to contribute to combating IUU fishing activities, and that States should take all necessary measures to ensure that vessels flying their flag do not engage in transshipment of fish caught by fishing vessels engaged in IUU fishing through adequate regulation, monitoring and control of such transshipment of fish;

NOTING that Article 18 (3)(f) and (h) of the *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks* requires flag States to adopt measures to regulate transshipment on the high seas to ensure that the effectiveness of conservation and management measures is not undermined, and port States to adopt regulations to prohibit landings and transshipments where the catch has been taken in a manner which undermines the effectiveness of regional conservation and management measures on the high seas;

RECALLING Articles 25(1)(d), 26(2)(a) and 27(1)(c) of the Convention, which prescribe, *inter alia*, that Members of the Commission shall take all necessary measures to ensure that fishing vessels flying its flag land or tranship fishery resources caught in the Convention Area in accordance with standards and procedures adopted by the Commission;

ADOPTS the following Conservation and Management Measure (CMM) in accordance with Article 8 of the Convention:

General Provisions for All Vessels Engaged in Fishing in the Convention Area

1. For the purposes of this CMM, “competent authorities” means the authorities of the Member or CNCP under whose flag the vessel is operating.
2. Transshipments at sea and in port shall only be undertaken between authorised vessels included in the Commission Record of Vessels.
3. At sea transfer of fuel, crew, gear or any other supplies between two vessels in the Convention Area shall only be undertaken between authorised vessels included in the Commission Record of Vessels.



Transshipments of Fishery Resources Caught in the Convention Area

4. The competent authorities of the receiving fishing vessel (carrier vessel) ~~Flying Squid active fishing vessels~~, shall notify the Secretariat, at least 7 days in advance, of a 14-day period during which transshipments of fishery resources caught in the Convention Area, ~~with the exception of jumbo flying squid~~, regardless of where the transshipment takes place, are scheduled to occur. The receiving vessel notification shall include the relevant information available regarding the transshipment operation, including the estimated date and time, anticipated location, fishery, and information about the vessels intending to tranship, in accordance with Annex 1 as much as practicable.
- 4.5. ~~For jumbo flying squid~~ ~~The competent authorities~~ ~~The competent authorities~~ of both the unloading and receiving vessels shall notify the Secretariat of an intention to tranship fishery resources caught in the Convention Area, at least 12 hours before the estimated time of such activity, regardless of where the transshipment takes place. The notification shall include the estimated date and time (if available), anticipated location, fishery, and information about the vessels intending to tranship, in accordance with Annex 1. The competent authorities may authorise the vessel operator to provide notification directly to the Secretariat. The Secretariat shall make this information available on the Members' section of the Commission website as soon as possible.
- 5.6. ~~_____~~ If, in accordance with the applicable CMMs, an observer is on board the unloading or receiving vessel, the observer shall monitor the transshipment activities.
- 6.7. ~~_____~~ An observer monitoring transshipment under paragraph 5 shall complete a transshipment logsheet (the required data elements are detailed as set out in Annex 2), to verify the quantity and species of the fishery resources being transhipped, and shall provide a copy of the logsheet to the competent authorities of the observed vessel. The competent authorities of the observed vessel shall submit the observer data of the transshipment logsheet to the Secretariat, no later than 15 days from debarkation of the observer, or in the case of the ~~jumbo flying squid fishery~~, no later than 30 days¹.
- 7.8. ~~_____~~ For the purpose of verifying the quantity and species of the fishery resources being transhipped, and in order to ensure that proper verification can occur, the observer on board shall have full access to the observed vessel, including crew, gear, equipment, records² and fish holds.
9. The competent authorities of the unloading fishing vessel and the receiving fishing vessel shall notify all the operational details to the Secretariat, as specified in Annex 3, no later than 7 days after the transshipment is carried out. For vessels engaged in the jumbo flying squid fishery, the competent authorities shall notify the operational details within 20 days of the end of each quarter ~~using the simplified template to be developed by the Secretariat and submitted to the CTC and the Commission for consideration at the annual meeting in 2021~~.

8. Standard Notification and reporting

10. All data relating to transshipment events such as such as notifications, observer logsheets, and operational details, shall be provided to the Secretariat of the SPRFMO in a standardised format. The standardised templates and instructions for submission of transshipment data are detailed on the SPRFMO website.

9.11. ~~_____~~ The competent authorities may authorise the vessel operator to provide this information directly to the Secretariat by email; should the Secretariat require any clarification, those requests shall be directed to the competent authorities of the relevant vessel. The Secretariat shall make a summary of this information available

¹ If due to exceptional circumstances, it is not possible to submit the Jumbo flying squid transshipment logsheet within the stipulated deadline, the competent authorities shall notify the Executive Secretary of the reasons and submit the logsheet as soon as it becomes available.

² This includes electronic records.



on the Members' section of the Commission website.

Review

~~10. This CMM shall enter into force 30 days after the conclusion of the annual Commission meeting in 2020. It shall apply to the jumbo flying squid fishery 30 days after the conclusion of the annual Commission meeting in 2021~~

~~11.~~ 12. This CMM shall be reviewed at the regular meeting of the Commission in 2024⁵⁶². Such review shall take into account, *inter alia*, the latest advice of the Compliance and Technical Committee with respect to the effectiveness of this CMM in providing the Commission with information about transshipments and other transfer activities and supporting monitoring, control, and surveillance activities; appropriate levels of observer coverage; and the scope of this CMM.



Annex 1

Transshipment Notification Data Requirements

Transshipment Details

- a) Member/CNCP providing the data submission
- a)b) Anticipated transshipment date (UTC)
- c) Anticipated transshipment time (UTC), if available
- d) Anticipated transshipment latitude (decimal degrees)
- e) Anticipated transshipment longitude (decimal degrees)
- f) Form completed by (vessel name)

Details of Unloading Vessel

- a) Name of vessel
- b) Registration number
- c) Radio call sign
- d) Vessel flag State
- e) IMO number/~~IHS Fairplay number (if applicable)~~
- f) Name and nationality of vessel master

Details of Receiving Vessel

- a) Name of vessel
- b) Registration number
- c) Radio call sign
- d) Vessel flag State
- e) IMO number/~~IHS Fairplay number (if applicable)~~
- f) Name and nationality of vessel master



Annex 2 Observer Transhipment Logsheets

1. Details of the Unloading Fishing Vessel

Name of vessel	
Registration number	
Radio call sign	
Vessel flag State	
IMO number / IHS Fairplay number (if applicable)	
Master's name and nationality	

2. Details of the Receiving Fishing Vessel

Name of vessel	
Registration number	
Radio call sign	
Vessel flag State	
IMO number / IHS Fairplay number (if applicable)	
Master's name and nationality	



3. Transshipment Operation

Date and time of commencement of transshipment (UTC)		
Date and time of completion of transshipment (UTC)		
If transshipment in port: Name, country, and code ¹ of port		
If transshipment at sea: Position (nearest 1/10th degree) at commencement of transshipment		
If transshipment at sea: Position (nearest 1/10th degree) at completion of transshipment		
Description of product type by species (e.g. whole, frozen fish in 20 kg cartons)		
Species	Product type	
Species	Product type	
Species	Product type	
Species	Product type	
Species	Product type	
Species	Product type	
Number of cartons, net weight (kg) of product, by species.		
Species	Cartons	Net weight
Species	Cartons	Net weight
Species	Cartons	Net weight
Species	Cartons	Net weight
Species	Cartons	Net weight
Species	Cartons	Net weight
Total net weight of product transhipped (kg)		
Hold numbers in reefer vessel in which product is stowed		
Destination port and country of receiving fishing vessel		
Estimated arrival date		
Estimated landing date		

4. Observations (if applicable)

¹ United Nations Code for Trade and Transport Locations (UN/LOCODE).



5. Verification

Name of observer	
Authority	
Signature and Stamp	



Annex 3

Transshipment operational details data requirements

Transshipment information to be reported

Details of Unloading Vessel

- a) Name of vessel
- b) Registration number
- c) Radio call sign
- d) Vessel flag State
- e) IMO number/~~IHS Fairplay number (if applicable)~~
- f) Name and nationality of vessel master

Details of Receiving Vessel

- a) Name of vessel
- b) Registration number
- c) Radio call sign
- d) Vessel flag State
- e) IMO number/~~IHS Fairplay number (if applicable)~~
- f) Name and nationality of vessel master

Details of Transshipment Operation

- a) Date and time of commencement of transshipment (UTC)
- b) Date and time of completion of transshipment (UTC)
- c) If transhipped in port:
 - i. Port State, name of port and port code
- d) If transhipped at sea:
 - i. Position (nearest 1/10th degree) at commencement of transshipment (latitude and longitude; decimal degree decimal)
 - ii. Position (nearest 1/10th degree) at completion of transshipment (latitude and longitude; decimal degree decimal)
- ~~e) Destination port of receiving vessel~~
- ~~f) Arrival date estimate~~
- ~~g) Landing date estimate~~
- ~~e)h) Hold numbers in receiving vessel in which product is stowed~~
 - ~~f) Destination port of receiving vessel~~
 - ~~g) Arrival date estimate~~
 - ~~h) Landing date estimate~~

Details of Fishery Resources Transhipped

- a) ~~Species~~ Fishery resources transhipped
 - i. Species code (3-letter FAO code)
 - ii. Description of species, by product type (e.g., whole, frozen fish)
 - iii. Container/carton type
 - ~~i. Description of fish, by product type (e.g., whole, frozen fish)~~
 - ~~ii-iv.~~ Number of cartons and net weight (kg) of product by container/carton type, and by species
 - ~~iii-v.~~ Total net weight of product transhipped (kg)
- b) Fishing gear used¹

¹ International Standard Classification of Fishing Gears (ISSCFG; [see Annex 9 of CMM 02-2022](#)). This information only needs to be provided by the



Verification (if Applicable)

- a) Name of observer
- b) Authority

| unloading_vessel.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7i

Conservation and Management Measure 14b-2023 Exploratory Potting CK

(COMM 11 – Prop 09_rev1)

ADOPTED

CMM 14b-202~~2~~³

Conservation and Management Measure for Exploratory Potting Fishery in the
SPRFMO Convention Area

(Supersedes CMM 14b-202~~2~~²)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING Article 22 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the Convention) which provides that a fishery that has not been subject to fishing or has not been subject to fishing with a particular gear type or technique for ten years or more shall be opened as a fishery or opened to fishing with such gear type or technique only when the Commission has adopted cautious preliminary Conservation and Management Measures (CMMs) in respect of that fishery and, as appropriate, non-target and associated or dependent species, and appropriate measures to protect the marine ecosystem in which that fishery occurs from adverse impacts of fishing activities;

RECOGNISING Articles 3(1)(a)(i) and (ii) of the Convention, which call on the Commission, in giving effect to the objectives of the Convention, to adopt Conservation and Management Measures (CMMs) that take account of international best practices and protect the marine ecosystem, particularly ecosystems with long recovery times following disturbance;

FURTHER RECOGNISING Articles 3(1)(b) and (2) of the Convention which call on the Commission to apply the precautionary approach and an ecosystem based approach to fishery resources under the mandate of the Convention;

NOTING the conservation value of relevant SPRFMO CMMs which will apply to activities anticipated to be undertaken pursuant to this measure, including, *inter alia*, CMM 03-2022 (Bottom Fishing) on the Management of Bottom Fishing in the SPRFMO Convention Area and CMM 09-2017 (Seabirds) on Minimising Bycatch of Seabirds in the SPRFMO Convention Area;

AGREEING that new and exploratory fisheries should not be permitted to expand faster than the acquisition of information necessary to ensure that the fishery can and will be developed in accordance with the principles set out in Article 3 of the Convention;

RECOGNISING Article 22(2) of the Convention, which calls on the Commission to adopt preliminary measures that ensure that any new fishery resource is developed on a precautionary and gradual basis until sufficient information is acquired to enable the Commission to adopt appropriately detailed CMMs;

REVISES and ADOPTS the following CMM in accordance with Articles 8, 20 and 22 of the Convention:



Objectives

1. To provide for exploratory bottom pot fishing for lobster and crab in the Convention Area for the purpose of obtaining scientific data: to allow the evaluation of the long term fishery potential for a lobster and crab fishery in the Convention Area; to evaluate the possible impacts on the target stocks, associated or dependent species, and marine ecosystems; to evaluate the effectiveness of mitigation measures; and to ensure that the bottom pot exploratory fishery is developed on a precautionary and gradual basis according to the best available science.

Definitions

2. For the purposes of this measure:
 - a) "lobster" means both "*Jasus spp*" lobster and "*Projasus spp*" lobster;
 - b) "crab" means "*Chaceon spp*" crab;
 - c) "bottom potting" means standardised strings of traps carefully designed and dedicated to capturing particular species of crustaceans and having minimal adverse impact on the environment as described in the Fisheries Operation Plan reviewed by the 8th meeting of the Scientific Committee;
 - d) "fishing year" means a year of 12 months, from July 1st to June 30th;
 - e) "lobster spawning season" means the season in which it is believed the *Jasus spp* reproduce and spawn, being July 1st to September 30th;
 - f) "FOP" means the relevant this Fisheries Operation Plan;
 - g) "TAC" means Total Allowable Catch;
 - g) "trip" means any period commencing with the departure of the vessel from port for the purpose of beginning a fishing trip to such time as any or all fish on board the vessel are unloaded from the vessel, either ashore or transshipment carrier in port.

Application

3. This measure applies to exploratory fishing for lobster and crab as described in the Fisheries Operation Plan adopted by the SPRFMO Commission (COMM10-Report, Annex 4b).
4. None of the obligations in this measure exempt a Member or CNCP from complying with any Convention obligation or any other CMMs adopted by the Commission.

Details and Specification of Exploratory Fishing Activities

5. Fishing for lobster and crab, using the bottom potting method, may be conducted on seamounts or other features within the exploratory fishing boxed areas identified in Table 1 below.

Table 1: The coordinates of the two areas intended for exploratory fishing.

Exploratory area	Latitude	Longitude
Foundation Sea mount chain	31'00 S	100'00 W
	31'00 S	134'00 W
	40'00 S	134'00 W
	40'00 S	100'00 W
Northern seamount	21'00 S	101'00 W
	21'57 S	101'00 W
	23'55 S	94'13 W



	25'06 S	92'50 W
	27'00 S	92'50 W
	27'00 S	84'00 W
	21'00 S	84'00 W

6. Notwithstanding paragraph 5, fishing in the Kopernik Valley, coordinates for which are given in Table 2, below depths of 250 metres shall be prohibited

Table 2: Coordinates for fishing in the Kopernik Valley

Longitude	Latitude	Data point
-116.025	-35.885	1
-116.005	-35.885	2
-116.005	-35.89	3
-116.01	-35.89	4
-116.01	-35.9	5
-116.015	-35.9	6
-116.015	-35.905	7
-116.01	-35.905	8
-116.01	-35.91	9
-116.005	-35.91	10
-116.005	-35.915	11
-116.025	-35.915	12
-116.025	-35.9	13
-116.02	-35.9	14
-116.02	-35.89	15
-116.025	-35.89	16
-116.025	-35.885	17

7. The exploratory fishing conducted pursuant to this CMM shall apply for ~~two~~three fishing years, commencing July 1st 2021, and ending on June 30th 202~~3~~4.
8. Each trip shall be limited to setting and hauling no more than five lines of 100 traps per day for lobster, and no more than five lines of 200 traps per day for crab when fishing below 300m.
9. The vessel is authorised to test alternative trap designs to evaluate gear selectivity.
10. A CPUE limit of 4 kg per trap shall be applied for Kopernik Seamount, assessed weekly through a moving 30-day window starting on day 30, and assessed every 7 days thereafter. Should this CPUE limit be reached, the Cook Islands shall close Kopernik Seamount and it shall remain closed to fishing pending the SC's review of the Cook Island's planned ongoing response.
11. A 20t total allowable catch for *Jasus caveorum* on Kopernik Seamount per trip will apply.
12. Fishing shall be closed to the vessel during the lobster spawning season from July through to September each year. The vessel is prohibited from retaining lobster on board the vessel while fishing for other target species during this period.
13. The maximum lobster and crab (combined) total allowable catch (TAC) taken pursuant to this CMM shall not exceed the global TAC of 300 tonnes per fishing year for fishing years commencing in July 2021, ~~and July 2022~~ and July 2023 respectively.



14. The Cook Islands shall ensure that any vessel authorised to conduct the exploratory fishing shall provide weekly reports on its fishing activities to the Cook Islands.
15. Any results will be used to develop proposals for the consideration of the Scientific Committee on the design of any subsequent fishing.
16. Catch and effort shall be monitored on a trap-by-trap basis and fishing operations shall cease in that year once either the effort or catch limit, whichever occurs first, specified in paragraphs 8, 10 and 11 has been reached.
 - a) Because the stock and stock status are not known, if at any time during the exploratory fishing the stock indicators show sustainability concerns the Cook Islands shall issue a directive to the authorised fishing vessel for exploratory fishing to cease and advise the Commission promptly thereafter.
17. The Cook Islands shall ensure that any fishing vessel authorised to undertake this exploratory fishing shall have experience working within catch limits and use intensive monitoring of all catch. As a catch limit is approached, fewer strings of traps will be set to constrain the retained catch within the limit.
18. Fishing activity undertaken pursuant to this measure shall not be considered a precedent for future allocation decisions.

Authorised vessels

19. Any Cook Islands vessel authorised to undertake fishing shall do so pursuant to this measure. In the event that the authorised vessel becomes unavailable, an alternate fishing vessel of similar capability and capacity may be authorised to undertake fishing pursuant to this measure only after the replacement fishing vessel has been notified by Cook Islands to the Executive Secretary who will notify all Members and CNCs.
20. In determining the suitability of an alternate fishing vessel the Cook Islands shall consider, *inter alia*:
 - a) the vessel's ability to conduct the exploratory fishing set out in the approved Fisheries Operation Plan;
 - b) the master and crew's history and experience in comparable research or exploratory fishing;
 - c) the ability of the fishing vessel to provide suitable accommodation, facilities, and operating support for a Cook Islands Government observer;
 - d) the ability of the fishing vessel to maintain rigorous monitoring of the potential for Significant Adverse Impacts on Vulnerable Marine Ecosystems (VMEs).
 - e) any history of Illegal, Unreported or Unregulated (IUU) fishing by the vessel. A vessel on the SPRFMO IUU list or the IUU list of another competent regional fisheries management organisation shall not be accepted as an alternate vessel.

Management measures

21. Fishing pursuant to this measure shall take place in accordance with this measure or any amendment to the measure adopted by the regular meeting of the Commission.

Data collection

22. In undertaking fishing pursuant to this measure, any authorised fishing vessel shall collect all the data required by current CMMs and as set out in the Fisheries Operation Plan reviewed by the ~~8th meeting of the Scientific Committee, SPRFMO Commission 9COMM10-Report, Annex 4b)~~ and, to the extent possible any further data requested by the Scientific Committee (SC) for its annual evaluation and assessment.
23. The vessel shall be fully capable of complying with SPRFMO data standards and reporting.

Marine Mammals, Seabirds, Turtles, and other Species of Concern



24. A vessel fishing pursuant to this measure shall use the following mitigation methods:
- there shall be no dumping of offal while lines are being set or while lines are being hauled;
 - any offal or discards shall be macerated by machine prior to discarding;
 - discarding shall take place only at the end of a haul or while steaming; and no biological material shall be discarded for at least 30 minutes before the start of any set or during any set;
 - discarding may only take place from the opposite side of the vessel from the hauling position.
25. The following information shall be collected by observers for marine mammals, seabirds, turtles, and other species of concern:
- standardised seabird and marine mammal abundance counts shall be made at the rear of the vessel at the start, middle, end of each event (from set to haul);
 - the observer shall have a target of observing 10% of pots hauled for marine mammal, seabird and turtle captures, and for comparison with a sample of recorded video observations;
 - all marine mammals, seabirds, turtles, and other species of concern captured shall be identified, and photographs will be taken of as many seabird interactions as possible and all birds released alive;
 - all dead birds must be retained for formal identification and necropsy;
 - opportunistic observations, photography and identification of marine mammals may be undertaken in collaboration with the crew.
26. All information specified in CMM 03-202[2][3] (Bottom fishing) and all data necessary to assess encounters with VMEs shall be collected to enable assessment and monitoring of the distribution of vulnerable marine ecosystems in the areas fished.

Monitoring & Data Collection

27. A vessel undertaking fishing pursuant to this measure shall carry at least one, and preferably two, observers appointed by the Cook Islands. Observer data shall be collected in accordance with the SPRFMO Observer data standard and shall include gear deployment and retrieval data, catch and effort information, biological data collection, and information on marine mammals, seabirds, reptiles and other species of concern.
28. In addition to carrying an observer, a vessel undertaking fishing pursuant to this measure shall be equipped with a video monitoring and recording system to be located over the hauling position to ensure that all hauled pots are observed or recorded on video. All recorded footage must be provided to the Cook Islands at the end of the voyage for analysis and storage.
29. The vessel shall also be equipped with tamper proof Automatic Location Communicators that meet SPRFMO standards for VMS reporting (every hour) and can respond to polling at any rate if required consistent with requirements under CMM 06-2020 (Commission VMS).
30. At the 11th meeting of the Scientific Committee the Cook Islands shall present a full and comprehensive amended exploratory fishing proposal which conforms, in full, with SPRFMO CMMs and the Convention, in particular CMM 13-2021 (Exploratory fisheries) and CMM 03-2022 (Bottom fishing) and take into account the Scientific Committee advice as described in the SC8 report. The proposal shall include the following:
- A detailed and specific proposal and Fisheries Operation Plan that includes formal sampling designs and data collection plans for all phases of the proposed exploratory fishery that conform with CMM 13-2021 (Exploratory fisheries);
 - A description of how the proposed fishing meets the requirements of the Convention and relevant CMMs, including a bottom fishing impact assessment;
 - Propose measures to ensure the long-term viability of the target species, including reproduction;



- d) A description of any fishing conducted to date, including effort, catch, and information on measures taken to protect VMEs.

Review

31. The ~~11⁰~~^{11⁰} regular session of the Commission shall, taking into account the advice of the ~~10⁹~~^{10⁹} Scientific Committee or inter-sessional Scientific Committee advice, determine the level of TAC for the fishing year July 1st 20~~23~~²² to 30th June 20~~24~~²³, and whether the exploratory fishing programme may proceed.
32. This CMM shall expire on September 30th 20~~23~~²⁴.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7j

Conservation and Management Measure 14e-2023 Exploratory Toothfish EU

(COMM 11 – Prop 14_rev1)

ADOPTED

CMM 14e-2021¹³

**Conservation and Management Measure for Exploratory Fishing for Toothfish
by the European Union in the SPRFMO Convention Area**

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECALLING Article 22 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the Convention) which provides that a fishery that has not been subject to fishing or has not been subject to fishing with a particular gear type or technique for ten years or more shall be opened as a fishery or opened to fishing with such gear type or technique only when the Commission has adopted cautious preliminary Conservation and Management Measures (CMMs) in respect of that fishery and, as appropriate, non-target and associated or dependent species, and appropriate measures to protect the marine ecosystem in which that fishery occurs from adverse impacts of fishing activities;

RECOGNISING Articles 3(1)(a)(i) and (ii) of the Convention, which call on the Commission, in giving effect to the objectives of the Convention, to adopt CMMs that take account of international best practices and protect the marine ecosystem, particularly ecosystems with long recovery times following disturbance;

FURTHER RECOGNISING Articles 3(1)(b) and (2) of the Convention which call on the Commission to apply the precautionary approach and an ecosystem based approach to fishery resources under the mandate of the Convention;

NOTING the conservation value of relevant SPRFMO CMMs which will apply to activities anticipated to be undertaken pursuant to this measure, including, *inter alia*, CMM 13-2021 (Exploratory Fisheries) on the Management of New and Exploratory Fisheries in the SPRFMO Convention Area, CMM 03-2022 (Bottom Fishing) on the Management of Bottom Fishing in the SPRFMO Convention Area and CMM 09-2017 (Seabirds) on Minimising Bycatch of Seabirds in the SPRFMO Convention Area;

AGREEING that new and exploratory fisheries should not be permitted to expand faster than the acquisition of information necessary to ensure that the fishery can and will be developed in accordance with the principles set out in Article 3 of the Convention;

RECOGNISING Article 22(2) of the Convention, which calls on the Commission to adopt preliminary measures that ensure that any new fishery resource is developed on a precautionary and gradual basis until sufficient information is acquired to enable the Commission to adopt appropriately detailed CMMs;

NOTING the discussions held at the eighth meeting of the Scientific Committee on the proposal from the EU for an exploratory toothfish fishery (SC8-DW05_Rev 2);

ADOPTS the following CMM in accordance with Articles 8, 20 and 22 of the Convention:



Objectives

1. To allow for exploratory bottom longline¹ fishing for toothfish (*Dissostichus spp.*), in the Convention Area on a precautionary and gradual basis according to the best available science to meet the following objectives:
 - a) to further explore the presence and distribution of toothfish in the SPRFMO Convention Area;
 - b) to collect and provide information and data contributing towards the sustainable management of potential toothfish stocks in specific, data-poor zones of the Convention Area;
 - c) to assess the potential for a future sustainable toothfish fishery in specific zones of the Convention Area;
 - d) to provide occurrence information on marine mammals, seabirds, sharks, skates and rays and other species of concern;
 - e) to better understand patterns of seabirds and marine mammals and their potential for interactions with fishing vessels;
 - f) to evaluate the potential impacts of longlines on non-target associated or dependent species, and vulnerable marine ecosystems;
 - g) to undertake tagging activities on toothfish to enable future studies on the migration of toothfish as well as a preliminary stock assessment.

Definitions

2. For the purposes of this measure:
 - a) “toothfish” means Patagonian toothfish (*Dissostichus eleginoides*) and Antarctic toothfish (*Dissostichus mawsoni*);
 - b) “bottom longline” means Spanish long-line system as specified in the CCAMLR Gear Library: <https://www.ccamlr.org/en/publications/fishing-gear-library>

Application

3. This measure applies to exploratory fishing for toothfish as described in SC8-DW05_Rev2 “European Union proposal for exploratory fishing for Patagonian and Antarctic toothfish within the SPRFMO Convention area, 2021-2023”.
4. None of the obligations in this measure exempt a Member or CNCP from complying with any Convention obligation or any other CMMs adopted by the Commission.

Details and specification of exploratory fishing activities

5. Fishing for toothfish, using the bottom longline method, may be conducted in the exploratory fishing research block identified in Table 1.

¹ Also referred to as demersal longline.



Table 1: corner coordinates of the George V Fracture Zone Research Block (GVFZ RB), area ~222,142 km², total fishable area 600-2500 m ~17,415 km²

GVFZ RB	
NW	50° 30' S, 136° E
NE	50° 30' S, 140° 30' E
E-Indent	52° 45' S, 140° 30' E
E-corner	52° 45' S, 145° 30' E
SE	54° 50' S, 145° 30' E
SW	54° 50' S, 136° E

Duration, Catch and Effort Limits

6. The exploratory fishing shall comprise three exploratory trips of a maximum duration of 60 consecutive days which may occur any time between 1 May and 31 October, one each in the years 2021, 2022 and 2023.

6bis. Notwithstanding paragraph 6, the exploratory trip in 2023 shall have a maximum duration of 60 consecutive days, which may occur any time between 1 May and 15 November 2023. From 1 to 15 November 2023, lines shall be set at night-time only and all fishing shall cease immediately if the death of the following occurs:

- a) One of any of the following five species: *Diomedea exulans* (Wandering Albatross), *Thalassarche chrysostoma* (Grey-headed Albatross), *Thalassarche melanophris* (Black-browed Albatross), *Procellaria cinerea* (Grey Petrel), *Pterodroma mollis* (Soft-plumaged Petrel); or
 - b) three individuals of any of the threatened albatross and petrel species that **breed breed** on Macquarie Island: *Phoebetria palpebrata* (Light-mantled Albatross), *Macronectes giganteus* (Southern Giant Petrel) and *Macronectes halli* (Northern Giant Petrel).
7. The annual toothfish total allowable catch (TAC) shall not exceed 75 tonnes (greenweight), unless the Commission revises the TAC at its annual meeting based on advice of the Scientific Committee. The TAC was considered a precautionary limit by the SPRFMO SC and supports the need to understand other risks like interactions with seabirds, marine mammals or other organisms. Fish that are tagged and returned alive to the sea shall not be counted against this limit. The catch limit of 75 tonnes will allow the collection of a significant amount of scientific information in accordance with the objectives of paragraph 1.
8. Fishing operations shall further be limited to a maximum of 5000 hooks per set, and with a maximum of 120 sets per annum. Lines shall be set at least 3 nm apart from each other, and not set at previous long-line locations within one calendar year. For this purpose, the date, shoot and haul position of each set shall be recorded by the vessel and imported into its plotter software. Fishing operations shall cease when either the TAC is reached, or if 120 sets have been set and hauled during the 60 consecutive days, whichever is sooner.
9. As the catch limit of 75 tonnes is approached, shorter lines shall be set to ensure that the TAC is not overrun. The company and crew of the proposed vessel shall have experience working to catch limits of 75 tonnes or less and use intensive monitoring of catch retained.
10. Fishing operations shall be limited to depths between 600 m and 2500 m to avoid any impact on benthic ecosystems in shallower waters.

Management Measures

11. Fishing pursuant to this measure shall only take place in accordance with SC8-DW05_Rev2 “European Union proposal for exploratory fishing for Patagonian and Antarctic toothfish within the SPRFMO Convention area, 2021-2023”.



12. All hooks used will be uniquely marked indicating the vessel and notified to the Executive Secretary before the beginning of each trip.

Authorised Vessels

13. The vessel *FV Tronio* shall be authorised to undertake fishing pursuant to this measure. In the event that the *FV Tronio* is unavailable, an alternative vessel of similar capability and capacity shall be authorised by the European Union to undertake fishing pursuant to this measure only after the replacement vessel has been formally notified to the Executive Secretary who will forward that information to all Members and CNCPs.

14. In determining the suitability of an alternative vessel the European Union shall consider, *inter alia*:

- c) the vessel's ability to conduct the exploratory fishing proposed in paper SC8-DW05_Rev_2 "European Union proposal for exploratory fishing for Patagonian and Antarctic toothfish within the SPRFMO Convention area, 2021-2023";
- d) the master and crew's history and track record in comparable research or exploratory fishing;
- e) the ability of the vessel to provide suitable accommodation, facilities, and operating support for observers on-board;
- f) the ability of the vessel to comply with the applicable mitigation measures to seabirds and marine mammals;
- g) any history of Illegal, Unreported or Unregulated (IUU) fishing by the crew or vessel: consistent with CMM 04-2020 (IUU Vessel List) a vessel on the SPRFMO IUU list, or the IUU list of another competent organisation dealing with fisheries management, shall not be accepted as an alternate vessel.

Data Collection

15. In undertaking fishing pursuant to this measure, the vessel shall collect all the data required by current CMMs including CMM 02-2022 (Data Standards) and CMM 03-2022 (Bottom Fishing) and, to the extent possible, all the data as set out in the paper submitted to the Scientific Committee (SC8-DW05_Rev2). The vessel shall also collect, to the extent possible, any further data requested by the Scientific Committee for its annual evaluation.

16. The vessel shall tag and release *Dissostichus* spp., continuously while fishing, at a rate of 5 fish per tonne green weight. All released toothfish must be double-tagged, using tags sourced from the CCAMLR secretariat. All toothfish that are not tagged must be retained.

17. The length frequency of tagged toothfish shall reflect the length frequency of the catch. The vessel shall achieve a minimum tag-overlap statistic of 60% for each species of *Dissostichus*.

18. Recaptured tagged fish (i.e. fish caught that have a previously inserted tag) shall not be re-released, even if at liberty for only a short period.

Marine mammals, seabirds, and other species of concern

19. All marine mammals, seabirds, sharks, and skates shall be released alive where possible. Information about birds colliding with the vessel will be recorded and all birds released alive where possible. Sharks and skates released alive shall not be counted as retained catch.

20. A vessel fishing pursuant to this measure shall use the following mitigation methods:

Seabird mitigation measures, in addition to those set out in CMM 09-2017 (Seabirds):

- a) the vessel shall release weights before line tension occurs in line with paragraph 3 of CM 25-02 (2018) of CCAMLR;



- b) there shall be no dumping of offal or discards whilst fishing lines are being set or hauled;
- c) any offal or discards shall be macerated by machine prior to discarding;
- d) discarding shall take place only after hauling has been completed and whilst steaming at a speed of at least 4 knots, and no biological material shall be discarded for at least 30 minutes before the start of any set or during any set;
- e) discarding may only take place from the opposite side of the vessel from the hauling position;
- f) two bird scaring devices (tori lines) shall be deployed when setting lines and at least one bird exclusion device (BED) shall be used to prevent birds entering the hauling area, to the extent allowed by prevailing weather;
- g) in the instance of exceeding the trigger level of 0.01 birds/1000 hooks of CMM 09-2017 (Seabirds), an evaluation of mitigation measures will be made, including ensuring correct implementation of mitigation measures, and strengthening mitigation where possible (e.g. night-time setting).

Seal and cetacean bycatch mitigation measures:

- h) any seal or cetacean bycatch will trigger a re-evaluation of fishing strategy. In the event of a cetacean entanglement and possible mortality as a result, prior to all subsequent lines being hauled a one-hour observation period will be conducted to ensure no whales are present.

Shark, skate, and macrourid bycatch mitigation measures:

- i) If more than 4 individuals of any of the following families Somniosidae, Lamnidae, Cetorhinidae, Alopiidae are caught or if more than 2 individuals of any one of these families of sharks are caught in one haul or set, the vessel shall move on for the duration of the trip, and a next line shall not be set closer than 5 nm from the centre of the preceding line;
- j) If the retained skate by-catch exceeds 5% of the toothfish catch or reaches a maximum of 100 kg in any one haul or set, the vessel will move-on to another location at least 5 nm distant;
- k) Since *Macrourus* spp. can be a common by-catch species in other toothfish longline fisheries, as a precaution the vessel will move-on to another location at least 5 nm distant if the by-catch of *Macrourus* spp. reaches 150 kg and exceeds 16% of the catch of toothfish in any one haul or set.

Data collection for marine mammals, seabirds, and other species of concern

21. The following information shall be collected for encountered marine mammals, seabirds, and other species of concern:

- a) At least one standardised seabird and marine mammal abundance count shall be made at the rear of the vessel during the setting of each line and again at the hauling of each line;
- b) the observer shall have a target of observing 25% of hooks hauled for marine mammal and seabird interactions. Where observations take place they will be recorded and stored for analyses and/or reference;
- c) all marine mammals, seabirds, sharks, skates and other species of concern accidentally captured dead or moribund shall be identified, and photographs will be taken. Information about birds colliding with the vessel will be recorded and all birds released alive;
- d) all dead birds will be retained for formal identification and necropsy;
- e) opportunistic observations, photography and identification of marine mammals may be undertaken in collaboration with the crew.



VME

22. All information specified in CMM 03-2022 (Bottom Fishing) relating to bottom fisheries and all data necessary to assess encounters with VMEs shall be collected to enable assessment and monitoring of the distribution of marine ecosystem in the areas fished.

Monitoring

23. A vessel undertaking fishing pursuant to this measure shall carry a scientific observer on-board, as well as a dedicated assistant experienced in at-sea scientific data collection to assist the observer with biological measurement and data collection. Observer data shall be collected in accordance with the SPRFMO Observer data standard and shall include gear deployment and retrieval data, catch and effort information, biological data collection, and information on marine mammals, seabirds, and other species of concern.
24. The scientific observer shall record all relevant biological data as outlined in CMM 02-2022 (Data Standards) to enable the evaluation of existence of the target species in the research area and evaluate the possible impacts of the exploratory fishery on the target stock, associated or dependent species, and marine ecosystems, as well as record encounters with VMEs, and document the effectiveness of related mitigation measures and how the mitigation measures for marine mammals, seabirds, sharks, skates and other species of concern are followed as specified in paragraph 20.
25. The vessel shall also be equipped with several tamperproof Automatic Location Communicators that meet SPRFMO standards for VMS reporting (every hour) and can respond to polling at any rate if required.
26. Electronic Monitoring (CCTV) will be used to monitor all setting and hauling activities, including monitoring of target and by-catch in the hauling bay. The tamper-proof system shall record sensor and video data overlaid with accurate GPS and timeline stamp on the video record.

Environmental data collection

27. The vessel shall record additional environmental data including *in situ* imagery of seabed species and habitats, and CTD (conductivity, temperature, depth) sensors deployed on longlines.

Review

28. The first year's survey, currently scheduled for ~Sept/Oct 2021, will be reported on to the Scientific Committee for their review 30 days prior to their preparatory (web-) meeting in May/June 2022. If overall shark by-catch, for families not covered by the move-on rule described above, is deemed excessive and of concern to the Scientific Committee, mitigation measures such as a catch limited move-on rule may be added in the FOP for the subsequent 2nd and 3rd year surveys.
29. This CMM shall expire following the regular meeting of the Commission in 2024.
30. The exploratory fishery to which this CMM applies may be extended through the development of a new CMM pursuant to CMM 13-2021 (Exploratory Fishing) to be considered by the Commission.
31. Fishing activity undertaken pursuant to this measure will not be considered to be a precedent for future allocation decisions.



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7k

Conservation and Management Measure 16-2023 Observer Programme

(COMM 11 – Prop 15_rev4)

ADOPTED 11:55am 17/2/23

CMM 16-202~~21~~³²

Conservation and Management Measure Establishing the
SPRFMO Observer Programme
(Supersedes CMM 16-202~~21~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

RECOGNISING United Nations General Assembly Sustainable Fisheries Resolutions 63/112 and 71/123 which encourage the development of observer programmes by regional fisheries management organisations (RFMOs) and arrangements to improve data collection;

RECALLING that, according to Article 28 of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the Convention), the Commission shall establish an observer programme, to be operated in accordance with standards, rules and procedures developed by the Commission;

NOTING that Article 28 of the Convention sets out the functions of the observer programme and that the observer programme shall be coordinated by the Secretariat of the Commission in a flexible manner to take account of the nature of the fisheries resources and other relevant factors;

NOTING that the primary function of observers on board fishing vessels is the collection of scientific information and that observers are not enforcement officials, but that Article 28 of the Convention specifies that the information collected by the observer programme shall, as appropriate, also be used to support the functions of the Commission and its subsidiary bodies, including the Compliance and Technical Committee (CTC);

NOTING the importance of the collection of robust scientific information, consideration should be given to *inter alia* cost-effectiveness and safety at sea;

NOTING that Article 19(2)(b) of the Convention stresses the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fish workers when establishing CMMs for fishery resources covered by the Convention;

NOTING ALSO that one of the functions of the Commission is to promote the conduct of scientific research to improve knowledge of fishery resources and marine ecosystems in the Convention Area and of the same fishery resources in adjacent waters under national jurisdiction;

NOTING FURTHER that scientific research vessels performing fishing operations for research purposes will have on board scientific personnel whose primary function is the collection of scientific data and information;

ACKNOWLEDGING that high-quality data and information related to the fishing activity in the Convention Area, and its impacts on the marine environment occurring in the SPRFMO area are essential for the Commission to adopt and implement effective and timely Conservation and Management Measures (CMMs);

DETERMINED to ensure the collection of data and information that can be used for effective assessment and management of SPRFMO fisheries resources, including target species and bycatch, and interaction of fishing activities with the environment and species occurring in the Convention Area, to improve the certainty of future scientific advice while taking into account ecosystem considerations;

RECOGNISING the international nature of fishing activity and management of SPRFMO fisheries resources, and the consequent need to deploy well-trained and accredited observers;

RECOGNISING the nature of the observer's work at sea and that the collection of data and information needs to be coupled with safe conditions for observers while on board fishing vessels;

ACKNOWLEDGING that electronic monitoring systems, study fleets and self-sampling have been successfully



tested for certain types of data in some fisheries and that the Commission, with the advice of the Scientific Committee (SC), could explore minimum standards for their implementation, as practical and appropriate;

COMMITTED to ensure that the SPRFMO Observer Programme (SPRFMO OP) is developed under a robust and transparent governance framework;

RECOGNISING the need to establish clear procedures for attaining accreditation of national observer programmes and service providers under the SPRFMO OP;

ADOPTS the following CMM in accordance with Articles 8 and 28 of the Convention:

General Rules

1. This CMM establishes the standards, rules and procedures to establish the SPRFMO OP and to ensure it achieves the objectives specified in Article 28 of the Convention.
2. The purpose of the SPRFMO OP is to facilitate the collection of verified scientific data and additional information related to fishing activities in the Convention Area and its impacts on the ecosystem, and also to support the functions of the Commission and its subsidiary bodies, including the CTC.
3. The SPRFMO OP shall apply to all fishing vessels flying the flag of a Member or Cooperating non-Contracting Party (CNC P) fishing for fisheries resources in the Convention Area for which a minimum level of observer coverage applies in the relevant CMMs in force.
4. Notwithstanding paragraph 3 above, for artisanal fishing vessels less than 15 metres from coastal developing States fishing for jumbo flying squid, ~~where extraordinary accommodation and safety concerns may exist that precludes deployment of an onboard observer in accordance with the SPRFMO Observer Programme,~~ a coastal developing State will employ an alternative scientific monitoring ~~programme~~ approach such as the Annex 4¹ that will collect data equivalent to that specified in this Observer Programme and in CMM 18-2020 (Squid), in a manner that ensures comparable coverage. In any such cases, the Member or CNC P wishing to avail itself of an alternative ~~approach~~ approach programme must present the details of the ~~approach~~ approach programme to the Scientific Committee for evaluation. The Scientific Committee will advise the Commission on the suitability of the alternative ~~approach~~ approach programme for carrying out the data collection obligations set forth in this Observer Programme and in CMM 18-2020 (Squid). Alternative ~~approaches~~ approach programme implemented pursuant to this provision shall be subject to the approval of the Commission at the annual meeting prior to implementation. Once the alternative ~~approach~~ approach programme has been approved, the coastal developing State will notify the Commission prior to the start of their fishing operations. This derogation does not extend to any other obligations contained in this or other CMMs in force. This exception will be revised by the Commission in 2026. Unless otherwise decided by the Commission, this derogation will expire on 1 January 2026.
5. Members and CNC Ps are encouraged to undertake their best efforts to have observers on board their fishing vessels² flying their flags and fishing for fisheries resources in the Convention Area for which there is no fishery-specific CMM in force. The Scientific Committee shall provide advice to the 8th meeting of the Commission in 2020 on the appropriate levels of observer coverage for these fisheries.
6. Observers shall have the rights and duties set out in Annex 1 of this CMM. Members and CNC Ps shall ensure that observers from ~~an accredited national observer programme or alternative scientific monitoring approach~~ approach programme ~~their national observer programmes~~ perform their duties.

¹ For that purpose, over a period of two years, the Annex 4 will be subject to change in order to fit its provisions into the relevant CMMs.

² For the purposes of this paragraph, fishing vessels exclude reefer and supply vessels.



7. Members and CNCPs shall also ensure that owners and fishing operators, vessel captains, officers and crew of vessels flying their flag:
 - a) Respect the rights of observers set out in Annex 1 of this CMM, and
 - b) comply with the standards and duties set out in Annex 2 of this CMM.
8. Members and CNCPs shall ensure that their national observer programmes and service providers only deploy independent and impartial observers.
9. The Commission, based on the advice of the SC, should explore and, where feasible, complementary with other means of collecting scientific data and additional information in conjunction with human observers.

Deployment of Observers

10. To fulfil their obligations under the Convention and the relevant CMMs adopted by the Commission, Members and CNCPs shall only deploy observers sourced from a national observer programme or service provider accredited according to the provisions of this CMM.
11. Observers from an accredited observer programme or alternative scientific monitoring approach programme ~~national observer programme~~ of a Member or CNCP shall only be deployed on board vessels flagged to another Member or CNCP with the consent of both Members or CNCPs.
12. Individual observers have the right to refuse a deployment on board a fishing vessel for justified reasons, including when safety issues have been identified on the vessel to be deployed or due to serious illness of the observer before boarding. The national observer programme or service provider shall ensure that the reasons for such refusal are documented and that a copy of such documentation is provided to the SPRFMO Secretariat, which will forward it to the relevant Member or CNCP.

Levels of Coverage

13. Members and CNCPs shall ensure that all fishing vessels flying their flag carry observers from either a national observer programme, alternative programme or service provider accredited under the SPRFMO OP to meet the minimum levels of observer coverage required by the relevant applicable SPRFMO CMM(s) while operating in the Convention Area³.
14. Scientific research vessels flying the flag of a Member or CNCP fishing for research purposes in the Convention Area shall be exempted from the obligation to carry accredited observers on board⁴. In these cases, Members and CNCPs shall comply with the data collection and reporting obligations of paragraphs 44, 45 and 46, and shall ensure that scientific personnel on board possess the capacity to perform in full all of the observation and reporting responsibilities contained in those paragraphs.
15. For fisheries where 100 percent of observer coverage is not required, Members and CNCPs shall ensure that the method of assigning observers on vessels flying their flag is representative for the fishery to be monitored and commensurate with the specific data needs of the fishery as a whole. This requirement is subject to practical constraints related to Members and CNCPs with a small number of fishing vessels or trips.
16. In relation to paragraph 15 of this CMM, Members and CNCPs shall document and provide information on the methods used to allocate observers on fishing vessels flying their flag to meet the observer coverage requirements, and shall also provide this information in their National Annual Report to the SC. The SC shall review the method used by each Member or CNCP and provide recommendations for improvement, when necessary.

³ CMM 01-2022 (*Trachurus murphyi*), CMM 03-2022 (Bottom fishing), CMM 13-2021 (Exploratory fisheries) and CMM 18-2020 (Jumbo flying squid) specify observer coverage levels for these fisheries.

⁴ This paragraph does not apply to fishing under CMM 13-2021 (Exploratory Fisheries) - observer requirements for exploratory fishing are specified under paragraph 20 of that CMM.



Accreditation

Accreditation Evaluator

17. The SPRFMO OP Accreditation Evaluator is the public or private person or entity tasked by the Commission to assess and evaluate the applications for accreditation. The SPRFMO OP Accreditation Evaluator shall have addressed any potential or actual conflict of interest in the course of delivering its service.
18. Applications for the accreditation of national observer programmes may be submitted by Members or CNCPs while applications by service providers may be submitted directly by an external, non-governmental provider of observers, or a Member or CNCP under the SPRFMO OP. Subject to paragraphs 36 and 38 of this CMM, the evaluation of each national observer programme or service provider shall only be undertaken by the SPRFMO OP Accreditation Evaluator.
19. Subject to paragraphs 29, 30 and 31 of this CMM, the SPRFMO OP Accreditation Evaluator shall evaluate the national observer programmes and service providers against the minimum requirements and standards set by the Commission in Annex 3 of this CMM.
20. The Secretariat shall ensure that the SPRFMO OP Accreditation Evaluator is required, through its service contract, to maintain the confidentiality of any information received by a Member, CNCP or service provider pursuant to this accreditation process.
21. A Decision of the Commission will designate a SPRFMO OP Accreditation Evaluator no later than at its 8th annual meeting. The procedure for appointing the SPRFMO OP Accreditation Evaluator, as well as the terms and conditions of engagement, are outlined in COMM7-Report Annex 7i.
22. The SPRFMO OP Accreditation Evaluator shall be paid out of the Commission budget.

Evaluation of Observer Programmes of Members, CNCPs and Service Providers by the SPRFMO OP Accreditation Evaluator

23. Consistent with Article 28(1) of the Convention, the SPRFMO OP, including the accreditation process, shall be coordinated by the Secretariat and operated in accordance with the standards, rules and procedures detailed in this CMM.
24. Each Member, CNCP or service provider seeking to accredit its observer programme under the SPRFMO OP shall submit to the Secretariat and the Accreditation Evaluator, at any time, all the relevant information and documentation to fulfil the standards provided for in Annex 3, including manuals, guides and training materials. Where applications are submitted by service providers on behalf of a Member or CNCP, final responsibility for the completeness and accuracy of the information submitted shall rest with the Member or CNCP. All the information and documentation shall be provided in the official language of the Commission or with appropriate translations. The Secretariat may recommend that the Member, CNCP or service provider complete the application when there is clear evidence that substantive or essential information is missing.
25. Members and CNCPs are encouraged to inform the Secretariat and the Accreditation Evaluator a year in advance of their intention to pursue accreditation under the SPRFMO OP and to commence the accreditation process at least six months prior to the date fixed for the opening of the next Commission meeting.
26. The Secretariat shall promptly provide the information and documentation referred to in paragraph 24 to the SPRFMO OP Accreditation Evaluator.



27. The SPRFMO OP Accreditation Evaluator shall liaise with Members, CNCP and service providers, as appropriate. Members, CNCPs and service providers shall have the opportunity to provide additional information and corrections relevant to their evaluation to the Secretariat and the Accreditation Evaluator. This process will be conducted by the SPRFMO OP Accreditation Evaluator in a fair, equitable, transparent and non-discriminatory manner.
28. Following evaluation and bilateral consultation, the SPRFMO OP Accreditation Evaluator shall provide a Draft Preliminary Evaluation Report to the Member, CNCP or service provider pursuing accreditation within 30 days for comment prior to the report being provided to the Secretariat. The SPRFMO OP Accreditation Evaluator shall then incorporate any additional information and provide the Preliminary Evaluation Report simultaneously to both the Secretariat and the Member, CNCP or service provider indicating whether the nominated national observer programme or service provider has met the minimum standards for accreditation under the SPRFMO OP.
29. When preparing a Preliminary Evaluation Report, and in addition to assessing the fulfilment of the standards indicated in Annex 3, the SPRFMO OP Accreditation Evaluator shall also consider those national programmes and service providers currently accredited by other RFMOs.
30. The SPRFMO OP Accreditation Evaluator shall assess the consistency and compatibility between the SPRFMO Minimum standards for accreditation under Annex 3 and those required by other RFMOs, along with their practical implementation and functioning. The Member or CNCP shall provide to the Secretariat the name of the national observer programme or service provider accredited by other RFMOs, the RFMO that has accredited it, and any other supporting information requested by the Accreditation Evaluator.
31. If the Accreditation Evaluator finds that the observer programme has accreditation under another RFMO or arrangement that meets the SPRFMO Minimum standards for accreditation under Annex 3, along with its practical implementation and functioning, it will find the application favourable.
32. The Accreditation Evaluator shall submit the Final Evaluation Report to the Secretariat no later than 60 days in advance of the Commission meeting at which it is to be considered. The Secretariat shall circulate the Final Evaluation Report as an annex to the SPRFMO Observer Programme Implementation Report prior to the CTC meeting at which it is to be considered.
33. The CTC shall assess the Final Evaluation Report and make recommendations to the Commission regarding whether the observer programme has met the requirements of this CMM and, where relevant, whether a recommendation based on paragraphs 35 to 38 is appropriate.
34. The Commission shall decide whether to grant accreditation at its next meeting on the basis of the Final Evaluation Report and any recommendations from the CTC.
35. If the Final Evaluation Report by the SPRFMO OP Accreditation Evaluator is favourable, the Commission may decide to adopt the report and grant accreditation under the SPRFMO OP for 5 years from the date upon which accreditation is granted.
36. Should the Commission decide that, despite the favourable findings of the Final Evaluation Report by the SPRFMO OP Accreditation Evaluator, the application does not meet the minimum standard required for accreditation (Annex 3), it may decide not to grant accreditation. In that case it shall clearly outline the basis for its decision.
37. If the Final Report by the SPRFMO OP Accreditation Evaluator is not favourable, the Commission may decide to adopt the report and not grant accreditation.
38. Should the Commission decide that, despite the findings of the non-favourable Final Evaluation Report by the SPRFMO OP Accreditation Evaluator, the application meets the minimum standard required for accreditation (Annex 3), the Commission may decide to grant accreditation under any conditions as may be specified by the Commission. These conditions may include the accreditation of a national observer programme or a service provider on a temporary and conditional basis pending the fulfilment by that Member, CNCP or service provider of the deficiencies detected during the accreditation process.



39. In case an application for accreditation is not granted, nothing prevents a Member, CNCP or service provider from presenting a new application to seek accreditation. When reapplying for accreditation Members, CNCPs and service providers shall consider the findings and recommendations of the SPRFMO OP Accreditation Evaluator and the Commission.
40. Members, CNCPs and service providers shall be entitled to renew accreditation.
41. A Member may request that the Commission revoke, condition or suspend accreditation for a national observer programme or service provider at any time but not later than 30 days in advance of the next CTC meeting by providing evidence that the national observer programme or service provider is not meeting the minimum standards for accreditation. The Executive Secretary shall circulate the request for revocation, condition or suspension to Members as soon as possible but no later than 15 days after the request is received, and the SPRFMO OP Accreditation Evaluator shall be asked to advise the CTC on the matter no later than 20 days after the request was circulated.
42. The CTC shall assess the request to revoke, condition or suspend an accreditation and the information provided at its next annual meeting, as well as any information provided by other Members, and may provide recommendations to the Commission. The Commission shall consider the CTC's recommendations and the request to revoke suspend or condition accreditation at its next annual meeting.
43. The Secretariat shall publicise the name of all observer programmes accredited under the SPRFMO OP, together with relevant contact details, on the SPRFMO website and shall include a list of all national observer programmes or service providers accredited under the SPRFMO OP in the annual OP Implementation Report described in paragraph 47.

Data Collection

44. Members and CNCPs shall ensure that observers deployed on vessels flying their flag, and, where applicable, complementary means of collecting data and information, collect and provide the information specified in Annex 7 of CMM 02-2022 (Data Standards) in the manner set forth in that CMM and shall also provide relevant observer information required under any other CMM.
45. Nothing in this CMM shall prevent Members and CNCPs from taking additional actions related to data collection compatible with this measure.

Reporting

46. Members and CNCPs shall include a brief overview of the national observer programmes or service providers covering its fishing activity as a component of the Annual National Reports submitted by Members and CNCPs to the SC and developed in accordance with the "Guidelines for Annual National Reports to the SPRFMO Scientific Committee".
47. The Secretariat shall prepare a report on the implementation of the SPRFMO OP for presentation at each annual meeting of the CTC, using information from annual reports, observer data, and all other suitably documented and relevant information in its possession. The SPRFMO OP Implementation Report will address, *inter alia*: (1) information on problems that have been encountered; (2) recommendations for improving current standards and practices; (3) developments in observer programmes and observational methods; (4) constraints to accreditation and (5) in general any identifiable problem or obstacle in fulfilling the objectives and purpose of this CMM as outlined in paragraphs 1 and 2.
48. The SPRFMO OP Implementation Report shall be distributed to Members and CNCPs 30 days prior to each annual CTC meeting.
49. The CTC shall review the recommendations delivered by the SPRFMO OP Implementation Report and provide advice to the Commission thereon, including proposed actions to be taken.



50. The Secretariat shall make available observer data to the SC, at its request. Data confidentiality shall be maintained as set forth in procedures specified in Paragraph 6 of CMM 02-2022 (Data Standards) and in any other data procedures that may be adopted by the Commission.

Review

51. The CTC shall review the implementation and effectiveness of this CMM at least every five years, including the observer safety requirements, the applicability of the SPRFMO OP to other fishing vessels and any additional requirements as necessary to meet the objectives of both Article 28 of the Convention and this CMM.

52. The SC shall periodically review and provide advice on the appropriate level of observer coverage needed in each fishery to meet data needs.

53. Should the SC recommend that a change in coverage or research priorities for specific fisheries is needed, the revised coverage levels, if adopted by the Commission, will be specified in the relevant fishery CMMs.

Entry into Force

54. This CMM shall enter into force 120 days after the conclusion of the Commission's 2019 Annual Meeting.

55. Members and CNCPs may continue using their own non-accredited national observer programme or service provider to meet observer coverage requirements until 31 December 2024. From 1 January 2025 Members and CNCPs shall only deploy observers from national observer programmes or service providers accredited under the SPRFMO.



ANNEX 1 Minimum Standards for Observers

Observer Rights⁵

In fulfilling their tasks and duties, observers shall have the following rights:

- a) Freedom to carry out their duties without being assaulted, obstructed, delayed, intimidated or interfered with;
- b) Access to and use of all facilities and equipment of the vessel necessary to carry out the observer's duties, including but not limited to full access to the bridge, catch before being sorted, processed catch and any bycatch on board, as well as areas which may be used to hold, process, weigh, and store fish, as safety permits;
- c) Access to the vessel's records, including logbooks, vessel diagrams and documentation for reviewing records, assessment and copying, as well as access to navigational equipment, charts, and other information related to fishing activities;
- d) Access to and use of communications equipment and personnel, upon request, for entry, transmission, and reception of work-related data or information;
- e) Reasonable use of the communication equipment on board to communicate with the observer programme on land at any time including emergencies;
- f) Access to additional equipment, if present, to facilitate the work of the observer while on board the vessel, such as high-powered binoculars, electronic means of communication, freezer to store specimens, scales, et cetera;
- g) Safe access to the working deck or hauling station, during net or line retrieval and access to specimens on deck (alive or dead) in order to collect samples;
- h) Unrestricted access to food, accommodation and sanitary facilities of a standard equivalent to those normally available to an officer on board the vessel as well as medical facilities that meet international maritime standards;
- i) Access to verify safety equipment on board (through a safety orientation tour provided by officers or crew) before the vessel leaves the dock;
- j) Unrestrained permission to record any pertinent information relevant for scientific purposes and data collection;
- k) A designated contact or supervisor on land to communicate with at any time while at sea;
- l) To refuse deployment on board a fishing vessel for justified reasons, including where safety issues have been identified. The national observer programme or service provider shall ensure that the reasons for such refusal are documented and a copy of such document is provided to the SPRFMO Secretariat, which will forward it to the flag State of the vessel;
- m) The ability to communicate at any time the occurrence of safety issues to the vessel captain, national observer programme, service provider, the Secretariat, and flag State, as appropriate;
- n) Upon request by the observer, receiving reasonable assistance by the crew to perform their duties including, among others, sampling, handling large specimens, releasing incidental specimens and measurements;
- o) Privacy in the observer's personal areas;
- p) Not performing duties assigned to the crew, such as gear handling (for fishing purposes), offloading fish, et cetera;
- q) Observer data, records, documents, equipment and belongings will not be accessed, harmed, or destroyed.

Members and CNCPs shall ensure that operators, captains, officers and crew on board vessels flying their flag

⁵ For artisanal vessels of developing coastal States of no more than 15 meters in length fishing for jumbo flying squid consistent with paragraph 4, observer rights are included in Annex 4.



respect the rights of observers and that a copy of these rights are provided to the crew and/or prominently displayed.



Observer duties

The duties of observers include:

- a) Carrying complete and valid documents before boarding the vessel, including, when relevant, identification documents, passport, visas, and certificates of at sea security training;
- b) Submitting copies of the documents indicated above to the programme managers of the national observer programme or service provider, as required;
- c) Maintaining independence and impartiality at all times while on duty;
- d) Complying with the laws and regulations of the Member or CNCP whose flag the vessel is flying, as applicable;
- e) Respecting the hierarchy and general rules of behaviour that apply to the vessel personnel;
- f) Performing duties in a manner that does not unduly interfere with the operations of the vessel and while carrying out their functions giving due consideration to the operational requirements of the vessel and communicating regularly with the captain or master of the vessel;
- g) Being familiar with the emergency procedures aboard the vessel, including the locations of life rafts, fire extinguishers, and first aid kits, and participating regularly in emergency drills for which the observer has received training;
- h) Communicating regularly with the vessel captain on relevant observer issues and duties;
- i) Refraining from actions that could negatively affect the image of the SPRFMO OP;
- j) Adhering to any required codes of conduct for observers, including any applicable laws and procedures;
- k) Communicating as regularly as is required with the programme managers and/or national programme coordinator on land;
- l) Complying with any SPRFMO CMMs whose provisions are directly applicable to observers;
- m) Respect the privacy in the captain and crew areas.



ANNEX 2

Duties of Vessel Operators, Captain, Officers and Crew

Members and CNCPs shall ensure that vessel operators and captains, officers and crew, as applicable, comply with the following provisions regarding the SPRFMO OP:

Rights of Vessel Operators and Captains

Vessel operators and captains shall have the following rights:

- a) To agree to the timing and placement, when required to take on board one or more observers;
- b) To conduct operations of the vessel without undue interference due to the observer's presence and performance of the observer's duties;
- c) To assign, at his or her discretion, a vessel crew member to accompany the observer when the observer is carrying out duties in hazardous areas;
- d) To be timely notified by the observer provider on completion of the observer's trip of any comments regarding the vessel operations. The captain shall have the opportunity to review and comment on the observer's report and shall have the right to include additional information deemed relevant or a personal statement.

Duties of Vessel Operators and Captains

Vessel operators and captains shall have the following duties:

- a) Accept on board the vessel one or more persons identified as observers by the SPRFMO OP when required by the Member or CNCP to which the vessel is flagged;
- b) Ensure the vessel crew is properly briefed and does not assault, harass, obstruct, resist, intimidate, influence, or interfere with the SPRFMO OP observer or impede or delay the observer in the performance of duties;
- c) If required by a SPRFMO CMM, as a complementary monitoring tool, install and maintain functioning electronic monitoring systems or devices throughout the selected fishing trips;
- d) Ensure the observer has access to the catch before any sorting, grading or other separation of the components of the catch are made;
- e) Ensure that vessels operating in the Convention Area include adequate space for the observer to conduct bycatch sampling or other sampling as needed, in a safe manner that limits interference with vessel operations, with a dedicated sample station and other equipment such as scales;
- f) Maintain a safe and clean sampling station to be used by the observer;
- g) Not alter the sampling station during an observed trip without consultation with the observer and subsequent notification to the Member or CNCP in control of the vessel;
- h) Inform the crew regarding the timing and objectives of the SPRFMO OP and schedule for observer boarding, as well as their responsibilities when an observer from the SPRFMO OP boards the vessel;
- i) Assist the SPRFMO OP observer to safely embark and disembark the vessel at an agreed upon place and time;
- j) Allow and assist the SPRFMO OP observer to carry out all duties safely and ensure the observer is not unduly obstructed in the execution of duties unless there is a safety issue that requires intervention;
- k) Allow and assist the SPRFMO OP observer to remove and store samples from the catch and allow the observer access to stored specimens;
- l) Provide the observer, while on board the vessel, at no expense to the observer, national programme or service provider, with food, accommodation, adequate sanitary amenities and medical facilities of a standard equivalent to those normally available to an officer on board the vessel according to generally accepted international standards;



- m) Allow and assist full access to and use of all facilities and equipment of the vessel that is necessary for the observer to carry out his or her duties, including but not limited to full access to the bridge, catch before being sorted, processed catch and any bycatch on board, as well as areas which may be used to hold, process, weigh and store fish;
- n) Follow an established mechanism, if adopted by the Commission, for solving conflicts that would complement the established dispute settlement processes provided by observer programmes and providers;
- o) Cooperate with the observer when the observer is sampling the catch;
- p) Provide notice to the observer at least fifteen (15) minutes before fishing gear hauling or setting procedures, unless the observer specifically requests not to be notified;
- q) Provide adequate space to the observer in the bridge or other designated area for clerical work, as well as adequate space on deck or the factory to perform the observer's duties;
- r) Provide personal protective equipment, and, where appropriate, an immersion suit;
- s) Provide to the observer timely medical attention in case of physical or psychological illness or injury;
- t) Develop and maintain an emergency action plan (EAP) regarding observer safety.

Safety Orientation Briefing

Vessel captains or a crew member designated by the captain shall provide the observer with a safety orientation briefing at the time of boarding the vessel and before it leaves the dock. The orientation briefing shall include:

- a) Safety documentation of the vessel;
- b) Location of life rafts, raft capacities, observer's assignment, expiration, installation, and any other relevant safety related information;
- c) Location and instructions for use of emergency radio beacons indicating position in case of an emergency;
- d) Location of immersion suits and personal floating devices, their accessibility, and the quantities for everyone onboard;
- e) Location of flares, types, numbers, and expiration dates;
- f) Location and number of fire extinguishers, expiration dates, accessibility, et cetera;
- g) Location of life rings;
- h) Procedures in case of emergencies and essential actions of the observer during each type of emergency, such as a fire on board, recovering a person overboard, et cetera;
- i) Location of first aid materials and familiarity with crew members in charge of first aid;
- j) Location of radios, procedures for making an emergency call, and how to operate a radio during a call;
- k) Safety drills;
- l) Safe places to work on deck and safety equipment required;
- m) Procedures in case of illness or accident of the observer or any other crew member.

Procedure in the Event of an Emergency

If a SPRFMO observer dies, is missing or presumed fallen overboard, the Member whose flag the vessel is flying shall ensure that the fishing vessel:

- a) Immediately ceases all fishing operations;
- b) Immediately commences search and rescue if the observer is missing or presumed fallen overboard, and searches for at least 72 hours, unless the observer is found sooner, or unless instructed by the Member whose flag the vessel is flying to continue searching;
- c) Immediately notifies the Member whose flag the vessel is flying;
- d) Immediately notifies the Member or observer provider to whom the SPRFMO OP observer belongs, if



- applicable;
- e) Immediately alerts other vessels in the vicinity by using all available means of communication;
 - f) Cooperates fully in any search and rescue operation;
 - g) Whether or not the search is successful, return the vessels for further investigation to the nearest port, as agreed by the Member whose flag the vessel is flying and the national observer programme or service provider;
 - h) Provides the report to the observer providers and appropriate authorities on the incident; and
 - i) Cooperates fully in any and all official investigations, and preserves any potential evidence and the personal effects and quarters of the deceased or missing observers.

Flag States shall take and implement all steps, as a matter of due diligence, to prevent incidents causing serious harm or death to observers on board vessels flying their flag, and to sanction or punish those involved, including through criminal investigation and prosecution. The flag State and other Members and CNCs shall cooperate to that end.



ANNEX 3

Minimum Standards for Accreditation Under the SPRFMO OP

This Annex contains the Commission's minimum standards for accreditation under the SPRFMO OP. In accordance with paragraphs 28 and 32 of this CMM, the OP Accreditation Evaluator shall assess and decide all applications against these standards.

Impartiality, Independence and Integrity

1. National observer programmes and service providers shall only deploy independent and impartial observers. This means that neither the national observer programme or service provider, as the case requires, nor the individual observers, have a direct financial interest, ownership or business links with vessels, processors, agents and retailers involved in the catching, taking, harvesting, transporting, processing or selling of fish or fish products.
2. The national programme or service provider, and the individual observers:
 - a) Shall not have a direct financial interest, other than the provision of observer services, in the fisheries under the purview of the Commission, including, but not limited to: i) any ownership, mortgage holder, or other secured interest in a vessel or processor involved in the catching, taking, harvesting or processing of fish; ii) any business selling supplies or services to any vessel or processor in the fishery; iii) any business purchasing raw or processed products from any vessel or processor in the fishery;
 - b) Shall not solicit or accept, directly or indirectly, any gratuity, gift, favour, entertainment, inordinate accommodation, loan or anything of monetary value from anyone who either conducts activities that are regulated by a Member or CNCP connected with its services or the Commission, or has interests that may be substantially affected by the performance or non-performance of the observer's official duties;
 - c) Shall not serve as an observer on any vessel or at any processors owned or operated by a person who previously employed the observer in another capacity within the last three years (e.g., as a crew member); and,
 - d) Shall not solicit or accept employment as a crew member or an employee of a vessel or processor while employed by a national observer programme or service provider.

Observer Qualifications

The qualification of individual observers is the responsibility of national observer programmes or service providers. The national observer programme or service provider shall demonstrate that observers that are recruited into their programme have relevant education or technical training and/or experience for the fleets concerned; ability to meet the observer duties described in this annex; no record of convictions calling into question the integrity of the observer or indicating a propensity towards violence; and the ability to obtain all necessary documentation, including passports and visas.

Observer Training

National observer programmes or service providers shall demonstrate that observers are adequately trained before their deployment. Training shall include the following:

1. The relationship between fisheries science and fisheries management and the importance of data collection in this context;
2. The relevant provisions of the Convention and SPRFMO CMMs relevant to the functions and duties of observers;
3. Importance of observer programmes, including understanding the duties, rights, authority and responsibilities of observers;
4. Safety at sea, including emergencies at sea, donning survival suits, use of safety equipment, use of radios, survival at sea, management of conflicts, and cold-water survival;



5. First aid training, appropriate to working at-sea or in remote situations;
6. Species identification and record of species encountered at sea, including target and non-target species, protected species, seabirds, marine mammals, sea turtles, invertebrates indicating vulnerable marine ecosystems, et cetera;
7. Knowledge of the different types and functioning of bycatch mitigation devices required by SPRFMO CMMs;
8. Safe handling protocols to rehabilitate and release seabirds, marine mammals and sea turtles;
9. Fishing vessel and fishing gear types relevant to SPRFMO;
10. Techniques and procedures for estimating catch and species composition;
11. Use and maintenance of sampling equipment including scales, callipers, et cetera;
12. Sampling methodologies at sea, i.e., fish sampling, fish sexing, measuring and weighing techniques, specimen collection and storage, and sampling methodologies;
13. Understand potential biases in sampling, how they arise and how they could be avoided;
14. Preservation of samples for analysis;
15. Data collection codes and data collection formats;
16. Familiarity with catch logbooks and recordkeeping requirements to aid observers' collection of data as required under SPRFMO CMMs;
17. Use of digital recorders or electronic notebooks;
18. Electronic equipment used for observer work and understanding their operation;
19. Use of electronic monitoring systems as a complement to their work, when applicable;
20. Verbal debriefing and report writing;
21. Training on relevant aspects of the International Convention for the Prevention of Pollution from Ships (MARPOL).

Refresher training should be ongoing dependent on the qualification requirements. Relevant updates to CMMs and observer requirements should be communicated to observers before each deployment as part of the briefing process, for example in an updated manual.

Observer Trainers

National programmes or service providers shall demonstrate that observer trainers have the appropriate skills and have been authorised by that national programme or service provider to train observers.

Briefing and Debriefing

National observer programmes or service providers shall demonstrate that there are systems for briefing and debriefing observers and communicating at any time with vessel captains. The briefing and debriefing process shall be conducted by properly trained personnel and shall ensure that observers and vessel captains clearly understand their respective roles and duties.

Data Validation Process

National observer programmes or service providers shall demonstrate that they have in place an observer data validation process in place. The data validation process shall be conducted by properly trained personnel and shall ensure that data and information collected by an observer are checked for discrepancies or inaccuracies that are corrected before the information is entered into a database or used for analysis. This includes ensuring that the national observer programme or service provider has in place a mechanism to receive data, reports and any other relevant information from an observer in such a way that prevents interference in that data from other sources. The data validation process shall ensure that the data meet the following standards:

- a) A mechanism that allows scientific data to be stored and transferred to the national observer programme (or service provider) in a secure and confidential manner.
- b) Vessel information uniquely identifies the actual vessel from which the fishing occurred;
- c) Dates and times of fishing effort are included and internally consistent (for example an end time should be after a start time);
- d) Location of fishing is included and valid (for example, logical latitude/longitude combinations), internally consistent and entered in the correct units;



- e) Effort data allows quantification of the amount of effort invested by the vessel, appropriate to the fishing method used, which is also identified;
- f) Catch information identifies the fishery resource (to the species level where possible) and the quantity of that species retained or discarded. If used, species codes are accurate;
- g) Where biological or length information is collected for a fish, it is directly linked to the effort in which it was caught – including date and time, location, and fishing method information, and includes the methodology of data collection;
- h) If the observer programme extends to transshipment and/or landings, then the amount and species of fishery resources transhipped/landed is quantified and recorded according to a standard methodology;
- i) Interaction data involving marine mammals, seabirds, reptiles and/or other species of concern identifies the individual species (where possible), the number of animals, fate (retained or released/discarded), life status if released (vigorous, alive, lethargic, dead), and the type of interaction (hook/line entanglement/warpstrike/net capture/other).

Observer Identification Cards

National observer programmes or service providers shall provide observers with identification cards that include the full name of the observer, date of issue and expiration, the name of the national observer programme or service provider, a unique identifying number (if issued by the national observer programme or service provider) a passport style photo of the observer, an emergency phone number.

Coordinating Observer Placements and Observer Deployments

National observer programmes or service providers shall demonstrate responsibility and capacity for the timely deployment of observers and will ensure that the selected observer receives all possible assistance during the entire length of their placements.

National observer programmes or service providers shall have in place a protocol to replace an observer if the observer becomes unable to perform their duties.

National observer programmes or service providers shall also seek, to the extent possible, to avoid deploying a single observer on multiple consecutive trips on the same vessel.

It is the responsibility of a national observer programme or service provider to administer observer placements, to maintain the independence and impartiality of observers as described in this measure and ensure that all placements are administratively finalised as soon as practicable after the observers return to port. The national observer programme or service provider is expected to communicate with the observer regarding upcoming deployments, coordinate observer travel, and provide the necessary supplies for observer duties.

Observer Safety Equipment

National observer programmes or service providers must demonstrate that observers are provided with appropriate equipment, including safety equipment, which is in good working order, routinely checked and renewed to carry out their duties on board a vessel. Essential equipment includes a lifejacket, independent two-way communication device capable of sending and receiving voice or text communications, personal locator beacons (PLBs), immersion suits, hard hat, proper deck working boots or shoes, gloves and protective glasses (including sunglasses).

Responding to Allegations of Observer Misconduct

National observer programmes or service providers must establish procedures for preventing, investigating, and reporting on the misconduct of observers, in coordination with observers, vessel captains, and relevant Members and CNCPs.



Dispute Settlement

National observer programmes or service providers shall demonstrate the existence of a dispute resolution process fair to all parties that provides a process to resolve issues through appropriate means including facilitation and mediation.

Observer Safety

National programmes or service providers must demonstrate that procedures are in place to support observers in their ability to carry out their duties unimpeded and in a safe working environment, including an established Emergency Action Plan (EAP). The EAP must provide instructions on sending reports to the provider's designated 24-hour point(s) of contact to report unsafe conditions, including instances of harassment, intimidation or assault.

National observer programmes or service providers must also provide a permanent delegate or supervisor on land to communicate with the observer at any time while at sea.

Insurance and Liability

National observer programmes or service providers must demonstrate that observers have health, safety and liability insurance commensurate with the national standards of the observer programme or service provider for such insurance for the duration of any deployment before placing the observer on a vessel.



ANNEX 4

IMARPE OBSERVERS PROGRAM FOR THE ON BOARD IN PORT MONITORING OF THE CATCHES AND FISHING ACTIVITIES OF PERUVIAN ARTISANAL VESSELS AUTHORIZED TO FISH JUMBO FLYING SQUID *Dosidicus gigas* IN THE HIGH SEAS, IN THE AREA OF APPLICATION OF THE SPRFMO CONVENTION IN ACCORDANCE WITH PARAGRAPH 4 OF THE CMM 16- 2022

1. SCOPE OF APPLICATION

This alternative mechanism shall apply to the vessels with no more than 15 meters of length that are registered in the Record of Vessels of the SPRFMO and that are authorized by the Peruvian Government to fish in the Convention Area.

2. COVERAGE OF THE OBSERVER PROGRAM

For the purposes of the coverage of observers established in paragraph 10 of the CMM 18-2020, the alternative mechanism shall adopt the following one:

(a) a coverage of 5% or more of the trips of the artisanal fishing vessels involved, through observers on board, who will provide detailed information on the catch, fishing areas, fishing effort and biometric and biological data of what is caught.

(b) an approximate coverage of 80% or more of the landings (and trips) of the artisanal fishing vessels involved, through observers in port from IMARPE and/or from the Ministry of Production (PRODUCE), who will provide information on the catch, the fishing areas and fishing effort;

(c) coverage of 90% or more of the trips of the artisanal fishing vessels involved, through an information system using a traceability application⁶ running on portable smartphones, with which fishermen will provide in real-time all relevant information on their fishing trip, including on their catch, fishing areas and fishing effort.

3. INSTITUTO DEL MAR DEL PERU'S OBSERVERS

This alternative mechanism shall be executed by the Observers from Instituto del Mar del Peru as part of its regular monitoring system for the Jumbo Flying Squid of Peru and for informational status, as an on-board observer and as a port observer

. Cooperation agreements between CAPECAL and APAMARPA (Scientific and fishing sectors), which guarantees the correct deployment of observers on board artisanal vessels.

3.1. Observers' employment status

The observers are professionals in the areas of biology, fisheries engineering, fisheries technicians and fishermen. The port observers are IMARPE personnel with an Administrative Service Contract (Contrato Administrativo de Servicios, CAS), while the on-board observers are temporal workers. In both cases they receive a monthly remuneration.

3.1.1. Requirements to be an on-board observer

⁶ There is an agreement for the use of the traceability application "TrazApp" (<https://www.trazapp.org>), that has been developed by the non-governmental organization World Wildlife Foundation (WWF), which has been implemented in Peruvian artisanal jigging fleet.



Training level: fishing technologist, bachelor or professional in areas of fisheries engineering or biology;
Experience: minimum of 3 months in the performance of similar jobs and/or in the performance of equivalent functions;

Specialization program: have successfully completed a survival at sea course;

Required knowledge: knowledge of general biology and taxonomy of hydrobiological resources and preferably of jumbo flying squid-squid, and knowledge of fisheries data collection techniques and basic computer software (e.g., Excel, Word, others); and,

Insurance: have processed and have a Complementary Work and Risk Insurance (health insurance) and a Complementary Work and Risk Insurance (pension insurance) as a temporary worker.

3.1.2. Requirements to be a port observer

Training level: fisheries engineers, biologists, fisheries technician or local fisherman (who will be previously trained and shall already have a good knowledge of the local fishing activities and enjoy a good stand within the local fishing community);

Experience: minimum 1 year in the performance of similar jobs and/or in the performance of equivalent functions;

Specialization program: have successfully completed a survival at sea course;

Required knowledge: general knowledge of the common local fish species, knowledge of fisheries data collection techniques and basic computer software (e.g., Excel, Word, others).

3.2. Observer training

IMARPE will be responsible for the training of the port and on-board observers for the monitoring of the artisanal jumbo flying squid fishery. The training will include aspects related to the rights and duties of the observers on board and at the landing sites, the type and method of collecting data from the fishery on board and in port, the carrying out of biometric and biological samples of the catches on board, and of the landings in port.

In addition, the observer must have basic training of the MAM-009 course, carried out in the aquatic instruction centers authorized by the General Directorate of Captaincies and Coast Guard of Peruvian Navy, in order to obtain the certification of specialized fishing sailor.

3.3. Observer rights ~~on board and~~ at landing sites

- Right to be issued and carry an identification document that certifies him/her as an IMARPE observer;
- ~~Right to wear safety equipment and protection of human life at sea such as life jackets~~
- Right to have all the materials that are needed to perform their work ~~on board or~~ at the landing sites;
- Right ~~to be granted access to all the port facilities through which catch landings takes place and ~~on board,~~~~ the right to take biological samples;
- Right ~~not to perform tasks assigned to the crew~~ such as ~~handling of fishing gear (for fishing purposes)~~ ~~or~~ unloading of fish;
- Right that the data, records, documents, equipment and belongings of the observer are not be manipulated, damaged or destroyed;
- Right to be treated with respect by the skippers and crew of the fishing vessels as well as by the managers and personnel in charge of the landing sites, who will be provided with a copy of these rights; and,
- Right to receive periodical training.



3.3 bis Observer rights on board vessels

- Freedom to carry out their duties without being assaulted, obstructed, delayed, intimidated or interfered with;
- ~~Access to and use of all facilities and equipment of the vessel necessary to carry out the observer's duties, including but not limited to full access to the bridge, catch before being sorted, processed catch and any bycatch on board, as well as areas which may be used to hold, process, weigh, and store fish, as safety permits.~~ Access to and use of all facilities and equipment of the vessel necessary to carry out the observer's duties, including but not limited to full access to the vessel compartments, as safety permits;
- ~~Access to the vessel's records, including logbooks, vessel diagrams and documentation for reviewing records, assessment and copying, as well as access to navigational equipment, charts, and other information related to fishing activities⁷;~~
- ~~Access to and use of communications equipment and personnel, upon request, for entry, transmission, and reception of work related data or information;~~ Access to and use of communications equipment if available and personnel, upon request, for entry, transmission, and reception of work-related data or information.
- Reasonable use of the communication equipment on board to communicate with the observer programme on land at any time including emergencies, if available;
- ~~Access to additional equipment, if present, to facilitate the work of the observer while on board the vessel, such as high-powered binoculars, electronic means of communication, freezer to store specimens, scales, et cetera;~~
- Safe access to the working deck or hauling station, during net or line retrieval and access to specimens on deck (alive or dead) in order to collect samples;
- Unrestricted access to food, ~~accommodation~~ and sanitary facilities of a standard equivalent to those normally available to the skippers or an officer on board the vessel as well as medical facilities that meet international maritime standard;
- Access to verify safety equipment on board (through a safety orientation tour provided by officers or crew) before the vessel leaves the dock;
- Unrestrained permission to record any pertinent information relevant for scientific purposes and data collection;
- ~~A designated contact or supervisor on land to communicate with at any time while at sea~~
- To refuse deployment on board a fishing vessel for justified reasons, including where safety issues have been identified. The national observer programme or service provider shall ensure that the reasons for such refusal are documented and a copy of such document is provided to the SPRFMO Secretariat, which will forward it to the flag State of the vessel;
- Access to and use of communications equipment if available to communicate at any time the occurrence of safety issues to the vessel captain, national observer programme, service provider, the Secretariat, and flag State, as appropriate;
- Upon request by the observer, receiving reasonable assistance by the crew to perform their duties including, among others, sampling, handling large specimens, releasing incidental specimens and measurements;
- Not performing duties assigned to the crew, such as gear handling (for fishing purposes), offloading fish, et cetera;
- Observer data, records, documents, equipment and belongings will not be accessed, harmed, or destroyed.

⁷ The crew shall use traceability application "TrazApp" (<https://www.trazapp.org>) as a digital logbook and to register the vessel information.



3.4. Observer duties

- Always carry their identification documents while working on board and/or at landing sites;
- Maintain independence and impartiality at all times while on duty;
- Prepare a report of the activities carried out on board at the end of each fishing trip and deliver it together with the forms, information and samples collected to the designated coordinator of the closest IMARPE Coastal Laboratory; and,
- Maintain the confidentiality and reserve of the information accessed by virtue of the contract as observer.

4. STANDARD DATA TO BE COLLECTED

When an IMARPE observer is on board the fisheries data will be collected for each set or each fishing operation.

When there is no IMARPE observer on board, the catch data, fishing areas and number of fishermen by trip will be collected arrival to port by the IMARPE observer in the landing site or by a designated representative of the Peruvian Government (from IMARPE or PRODUCE) when the vessel arrives at port disembarkation.

The mobile traceability application "TrazApp" is already in use by some artisanal fishermen in the Peru and it is hoped that through an IMARPE-WWF agreement, its use can be extended and generalized at least amongst those artisanal vessels seeking authorization to fish for jumbo flying squid in the Convention area. The data obtained with the use of this application will expand and complement the information and data obtained through the observers on board and in port, allowing for detailed information to be collected on the duration, geographical position, catch and effort per set or fishing operation even when there are no observers on board or in port.

The fishermen and skippers of the artisanal vessels being authorized to fish for jumbo flying squid in the Convention area will be instructed that, when they plan to go out fishing for jumbo flying squid more than 200 nm away from the coast, they will notify the local IMARPE representative in advance, so that priority may be given to assigning an IMARPE observers aboard one or more of these vessels.

The fishermen and skippers of the artisanal fishing vessels being authorized to fish for jumbo flying squid in the Convention area will be instructed that, whenever they have carried out fishing operations for jumbo flying squid more than 200 nm away from the coast without having brought an IMARPE observer on board, they will proceed to report to the IMARPE port observer as soon as they arrive to port, in order to proceed with the data collection and sampling of the catch of said vessel as a matter of priority.

The type of information and data to be collected from each vessel and trip will depend on whether the vessel has an IMARPE or PRODUCE observer at port, and whether the skipper of the boat has access to the mobile traceability application "TrazApp".

4.1. When an IMARPE Observer is on-board

The data to collected will be:

- Vessel flag,
- Name of the vessel,
- Vessel registration number,
- Date of fishing activity (UTC format),



- Position at the start of each set or fishing operation, with resolution of 1/10th degree, decimal format, of latitude and longitude,
- Position at the end of each set or fishing operation, with resolution of 1/10th degree, decimal format, of latitude and longitude,
- Target species (FAO species code),
- Number of crew,
- Number of jigs and number of hand lines,
- Total fishing hours per set or fishing operation,
- Estimated total catch (kg) of jumbo flying squid per set or fishing operation,
- Identification and estimated total catch (kg) of any other species caught, if any, per set or fishing operation,
- Size-frequency sampling of squid caught in each set or fishing operation (see Annex 1, section 3),
- Biological sampling of squid specimens per set or fishing operation (see Annex 1, section 4).

4.2. When there is no IMARPE observer on-board and there is a port observer from IMARPE or from PRODUCE

The data to be collected will be:

- Vessel flag,
- Name of the vessel,
- Vessel registration number,
- Date of fishing activity (UTC format)
- Referential position of the fishing area, with resolution of 1/10th degree, decimal format, of latitude and longitude, as declared by the skipper or master fisherman,
- Target species (FAO species code),
- Number of crew,
- Number of jigs and number of hand lines,
- Total catch (kg),
- If it is possible to identify and separate the specimens caught in the Convention area, a length-frequency sampling of the squid caught in the Convention area will be carried out,
- In coordination with and subject to acceptance of the skipper or master fisherman, samples of non-gutted squid specimens caught in the Convention properly selected and preserved will be purchased for biological sampling in the laboratory.

4.3. When there is no IMARPE or PRODUCE observers, and the fishing pattern has the mobile traceability application “TrazApp”

The data to be collected will be:

- Vessel flag,
- Name of the vessel
- Vessel registration number
- Position at the start of each set or fishing operation, with resolution of 1/10th degree, decimal format,



of latitude and longitude,

- Position at the end of each set or fishing operation, with resolution of 1/10th degree, decimal format, of latitude and longitude,
- Target species (FAO species code),
- Number of crew,
- Number of jigs and number of hand lines,
- Total fishing hours per set or fishing operation, and
- Estimated total catch (kg) of jumbo flying squid per set or fishing operation

5. SAMPLING ON BOARD BY IMARPE ON-BOARD OBSERVER

On trips where there is an IMARPE observer on board, the IMARPE observer will carry out daily biometric (size) and biological samplings of the jumbo flying squid being caught, as described in Annex 4.1. This sampling will include:

5.1. Biometric sampling (of size frequency)

A simple random sample of maximum 120 squids will be collected and measured per fishing day (distributed among the different sets or fishing operations of that day), measuring and recording the dorsal mantle lengths, as described in Annex 4.1.

5.2. Biological sampling

To obtain biological data, from the large daily sample above, 10 female and 10 male squids will be set aside by means of a stratified random sampling, so that the specimens cover the entire range of sizes in the large daily sample. Then, for each specimen, the following data will be determined and recorded, as described in Annex 4.1:

- Mantle length (mm)
- Total weight (g)
- Eviscerated weight (g)
- Sex
- Maturity stage
- Evidence of copulation (females only)

6. SAMPLING IN PORT

In ports where there is an IMARPE Coastal Laboratory (i.e.: Tumbes, Paita, San José, Chicama, Huanchaco, Chimbote, Huacho, Callao, Pisco, Atico, Matarani and Ilo) arrangements will be made to buy part of the catch of those vessels that have caught jumbo flying squid more than 200 nm from the coast (in the Convention area) without having an IMARPE observer on board, for the purpose of carrying out biological sampling in the laboratory. This will be done only if it is possible to differentiate what has been caught in the Convention area, and those squids are landed whole (not gutted). For this, the master fisherman and/or crew fishermen of the artisanal vessels participating in the program will be instructed to bring to port samples of complete specimens, selected and conserved under certain criteria, and a fair price will be paid for that part of the catch delivered to IMARPE.



ANNEX 4.1

PROTOCOL FOR BIOLOGICAL AND BIOMETRIC SAMPLING OF JUMBO FLYING SQUID

Dosidicus gigas

MATERIALS USED

The materials to use in this process should include:

- Acrylic board,
- Measuring tape with 1 mm accuracy,
- Electronic scale with 0.01 g accuracy (for laboratory sampling),
- Dynamometer or “Roman” scale with 0.25 kg accuracy (for on-board sampling),
- Dissecting equipment: scissors, watchmaker's tweezers, straight tweezers, stainless steel knife,
- Vernier caliper or square caliper (for laboratory sampling, to measure the length of the testis, etc),
- Plastic trays,
- Stationery: pens, pencil, eraser, correction fluid, notepad,
- Biometric sampling form,
- Biological sampling form.

2. SAMPLING TYPE

The sampling type being used is the one considered for cephalopods, and is carried out as follows:

To obtain biometric data, it will be by taking a simple random sample of maximum of 120 specimens per fishing day (distributed among the different fishing sets or fishing operations of the day); and,

To obtain biological data, 10 female and 10 male specimens from the above sample will be set aside per day by means of a stratified random sampling, so that the specimens cover the entire range of sizes in the large



daily sample.

3. BIOMETRIC SAMPLING

The dimension to be measured is the dorsal mantle length (LM) in mm with a measuring tape, from the proximal edge of the mantle to the distal edge following the gladius in a straight line.

The size frequency of the specimens in the daily sample must be recorded with vertical bars forming groups of 5 (with the 5th bar crossing over previous four) in the biometric sampling form (“Formato de muestreo - 01” del IMARPE, or IMARPE’s “Sampling format - 01”), together with the date, fishing area, catch weight (kg), sample weight (kg), name of the vessel and names of those who carried out the biometric sampling.

4. BIOLOGICAL SAMPLING

The biological sampling will be different and will collect different sets of data depending on whether is conducted on board an artisanal vessel or in land, in a coastal laboratory, as follows:

Biological sampling on board. In this case, the on board observer will only be recording the mantle length (mm), total weight (g), gutted weight (g), sex, gonadal maturity stage and (in the case of females) evidence of copulation.

Biological sampling in coastal laboratories. In this case the port observers and/or the coastal laboratory personnel will do a more complete processing of the samples of whole squid specimens that have been purchased for sampling and research purposes from selected vessels participating in, or cooperating with the observers’ programme. And for this laboratory sampling:

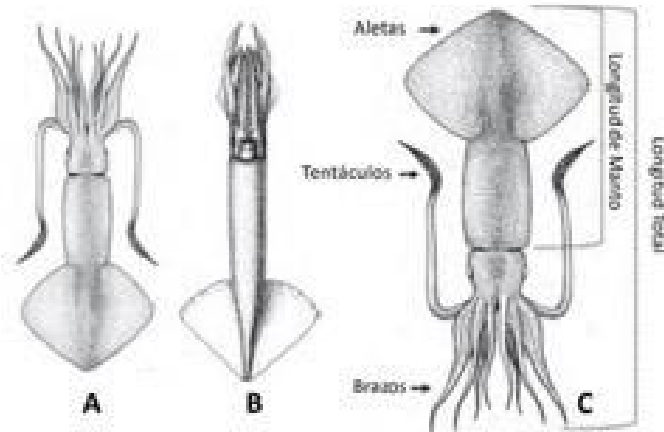
- The mantle length (ML) of each specimen is measured to the nearest mm with measuring,
- The total weight of each specimen weighed to the nearest g with an electronic scale,
- The specimens placed in the ventral position are dissected and the sex and gonadal stage of maturity is determined using the scale proposed by PEREA *et al.* (2018),
- In the case of female specimens, the length of the nidamental gland (mm) is measured and the reproductive structures (*i.e.*, nidamental glands, oviducts, oviductal gland and ovary) are removed and set aside to be weighted. In the case of male specimens, the spermatophoric complex (sac and organ) and the testis are removed set aside to be weighted after measuring the length of the testis (mm). The reproductive structures of each male and female specimen are weighed with a precision scale to the nearest 0.01 g,
- The digestive gland is removed and weighed,
- The degree of fullness of the stomach is determined according to a 4-stage empirical scale (0 = empty, 1 = half full, 2 = full and 3 = completely full). The stomach is removed for dissection and qualitative analysis of items in the food content, which are classified into fish (F), crustaceans (C), squid (Sq), others (O) and red liquid (LR). Samples of stomachs are also collected for analysis at the IMARPE Trophic Ecology Laboratory, according to the established protocol,
- In females, evidence of copulation is determined by observing and recording the presence or absence of spermatophores in the oral veil,
- The statoliths, which are found in the nuchal region (under the siphon), are collected by using a scalpel blade to make a transverse cut, and with the help of a watchmaker's tweezers, it is extracted, cleaned and the pair of statoliths is placed in statolith boxes or cartons (the label will be the serial number or the length and sex).
- The mantle is weighed.



5. ANATOMY OF THE JUMBO FLYING SQUID


Figure 1.- Jumbo flying squid *Dosidicus gigas* in (A) dorsal view (taken from ROPER *et al.* 1984, in MARKAIDA 2001); (B) ventral view

(taken from WORMUTH 1976, in MARKAIDA 2001); and, (C) dorsal view (modified from ROPER *et al.* 1984)



6. GONADAL MATURITY SCALE FOR FEMALES OF JUMBO FLYING SQUID

The description and macroscopic view of the four (4) stages of gonadal maturity of female jumbo flying squid (*Dosidicus gigas*) as described by PEREA *et al.* (2018) are summarized in the following chart.

STAGES	DESCRIPTION	PICTURES
I - Immature	The ovary is shaped like a pyriform sac, which is elongated, not granular and clear in appearance; being translucent in the initial phase of this stage. The wall of the ovary is very thin.	



<p><u>II - Maturing</u></p>	<p><u>The vary looks grainy, opaque, creamy or slightly yellowish.</u></p>	
<p><u>III - Mature</u></p>	<p><u>Larger and turgid, more piriform in appearance, yellowish-cream to amber in color, due to the presence of a large number of mature oocytes. The wall of the ovary is thin. Oviduct of great size for being full of advanced mature oocytes. The nidamental gland is developed and turgid. It presents immature, maturing, and mature oocytes.</u></p>	
<p><u>IV – Spawning or Expelling</u></p>	<p><u>Less turgid, granular, with lots of cream-colored and amber oocytes, with a predominance of the latter, giving an orange hue to the ovary. The wall of the ovary is very thin. Flaccid nidamental gland. The oviducts may be compact and large because they are full of advanced mature oocytes or somewhat flaccid due to their evacuation. In addition, in the external part of the oviductal gland some advanced mature oocytes are observed, a sign of spawning in the squid. Immature, maturing, and mature oocytes are observed. In the oviducts, these are full of oocytes at maximum maturity and ovulated. In the ovary, at microscopic level, the presence of post-ovulatory follicles is observed</u></p>	


7. GONADAL MATURITY SCALE FOR MALES OF JUMBO FLYING SQUID



The description and macroscopic view of the three (3) stages of gonadal maturity of males of jumbo flying squid (*Dosidicus gigas*) as described by PEREA *et al.* (2018) are summarized in the following chart.

STAGES	DESCRIPTION	PICTURES
<u>I - Immature</u>	<u>Small, flaccid, elongated, white-colored and translucent testicle.</u>	
<u>II - Maturing</u>	<u>A larger, somewhat consistent, whitish to creamy, but not translucent testicle.</u> <u>Whitish spermatophore sack.</u>	



<p><u>III - Mature</u></p>	<p>A testicle of a more developed size with respect to the previous stages, turgid, whitecolored and milky in appearance. Spermatophore sac is full of spermatophores; free spermatophores are observed in the abdominal cavity.</p>	
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11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 7 to 17 February 2023

COMM 11 – Report ANNEX 7I

Conservation and Management Measure 18-2023 Squid

(COMM 11 – WP 21_rev3)

ADOPTED

CMM 18-2023

Conservation and Management Measure on the Management of the Jumbo Flying Squid Fishery

(Supersedes CMM 18-2020)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that there has been a substantial increase in catches of and fishing effort for jumbo flying squid in the Convention Area since 1990;

CONCERNED that there is uncertainty concerning the stock status and exploitation rate of jumbo flying squid;

TAKING INTO ACCOUNT the discussions at the ~~the 9th and 10th meetings of the Scientific Committee that as a precautionary measure, fishing effort in the squid fishery be limited by both the number of vessels and the total gross tonnage of squid jigging vessels authorized as at 31 December 2020 (noting that coastal States should still be able to expand or develop their fisheries, either with jigging or other fishing gears used to fish Jumbo Flying Squid in a manner consistent with SPRFMO CMMs)~~, the Scientific Committee Squid Working Group Workshops on Effort (11 June 2022 and 2 September 2022), and the 10th meeting of the Scientific Committee from 26 to 30 September 2022, including paragraphs 170 and 172 of its report;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to ensure the long-term conservation and sustainable management of jumbo flying squid stocks in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for jumbo flying squid in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

RECALLING Articles ~~19(1), 19(2),~~ 20(3) and 20(4) of the Convention;

~~[CONSIDERING the paragraph 170 of the report of the SC10 where it was noted that paper SC10-SQ02 evaluated the required level of observer coverage; however, there were some concerns about the representativeness of data collection at the current observer coverage level. Some Members suggested that the SC may need to make a recommendation based upon observer coverage in other RFMOs, which is generally higher than that currently required in CMM 18-2022.]~~

~~RECALLING that the paragraph 172 of the SC10 noted that the characteristics of the fishery, the number of observers deployed, and the amount of data collected should be considered when discussing observer coverage. It was also noted that even though interactions with species of concern may be low, low interactions require high observer coverage to allow detectability, and even small numbers of interactions can result in large population impacts when the fleet is large and the populations of the impacted species are small.]~~

FURTHER RECALLING the need set out in Article 4 of the Convention to ensure compatibility of CMMs established for the high seas and those adopted for areas under national jurisdiction, and the duty of Contracting Parties to cooperate to this end;



RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to all vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) engaged in or intending to engage in fishing for jumbo flying squid (*Dosidicus gigas*) in the Convention Area.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2021 (Record of Vessels) that are flagged to Members and CNCs shall participate in the fishery for jumbo flying squid in the Convention Area.

Management for the Jumbo Flying Squid Fishery¹

3. Members that have authorized squid jigging vessels on the Commission Record of Vessels as of 31 December 2020 shall limit both the number and total gross tonnage of squid jigging vessels flying their flag authorized to fish for Jumbo Flying Squid in the Convention Area to the level of their squid jigging vessels ~~authorized as of 31 December 2020~~ ~~[or to their highest number of active vessels [historical levels of fishing]]~~ as set out in Table 1 of this CMM. Members may substitute their squid jigging vessels as long as the number and total gross tonnage of the vessels for each Member does not exceed the level represented in the Table.
4. Members and CNCs, other than developing coastal States, that have no authorized squid jigging vessels on the Commission Record of Vessels as of 31 December 2020 but have a historical record in the Jumbo Flying Squid Jigging Fishery in the Convention Area shall submit to the Executive Secretary, by 30th June, their historical record of Jumbo Flying Squid Jigging fisheries in the Convention Area in the format of the number of vessels, total gross tonnage and catch weights (t) by year, for inclusion in the squid information held by the Secretariat. The Secretariat shall circulate this information to all Members and CNCs.
5. Members and CNCs referred to in paragraph 4, other than developing coastal States, may develop their Jumbo Flying Squid Jigging Fishery. These Members and CNCs shall limit the number and total gross tonnage of the squid jigging vessels flying their flag authorized to fish for Jumbo Flying Squid in the Convention Area, taking into account the state of squid resources, and not exceeding their highest historical levels. The historic high levels will be determined by the information provided pursuant in paragraph 4.
6. Members and CNCs, other than developing coastal States, that have no historical record in the Jumbo Flying Squid Jigging Fishery in the Convention Area, have no authorized squid jigging vessels on the Commission Record of Vessels as of 31 December 2020, and want to participate in the Jumbo Flying Squid Jigging Fishery shall submit a proposal to the Scientific Committee at least 90 days in advance of the next Scientific Committee meeting. These proposals shall include, at a minimum, information on the proposed number of fishing vessels, gross tonnage limit, and the type of jigging gear. The Scientific Committee shall provide its advice on the potential impact of the proposed effort increase. The Commission shall consider these proposals in conjunction with any advice from the Scientific Committee.
7. Developing coastal States² are allowed to develop their Jumbo Flying Squid fisheries in the Convention Area without restrictions, either with jigging or other fishing gears used to fish Jumbo Flying squid, in a manner consistent with SPRFMO CMMs. Such developing coastal States shall provide notification of the number of vessels and gross tonnage involved, in accordance with the time specified in paragraph 12.

¹ The effort limitation in this measure applies to fishing for jumbo flying squid in the SPRFMO Convention Area, and does not apply to fishing gears other than jigging.

² For the purpose of this CMM only, developing coastal States are Belize, Cook Islands, Cuba, Panama, Ecuador, Chile, Peru, and Vanuatu and shall not prejudice future decisions of the Commission regarding the definition of developing coastal States.



8. This CMM is not to be considered a precedent for future allocation decisions.

Data Collection and Reporting

9. Each Member and CNCP participating in the jumbo flying squid fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2022 (Data Standards) and using the templates prepared by the Secretariat and available on the SPRFMO website, including an annual catch report detailing catches on a monthly basis.

10. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data. The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

Monitoring and Control

11. Members and CNCPs participating in the jumbo flying squid fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.

12. Each Member and CNCP participating in the jumbo flying squid fishery shall provide the Executive Secretary a list of vessels³ they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2022 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that have actively fished or engaged in transshipment in the Convention Area within 30 days of the end of each year. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.

13. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2022 (Data Standards).

Scientific Committee Reports

14. Members and CNCPs shall provide their annual reports, in accordance with the existing guidelines for such reports, in advance of the Scientific Committee meeting of each year. Members and CNCPs shall also provide observer data for each fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members and CNCPs should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.

15. The information collected under paragraphs 9 and 14, and any stock assessments and research in respect of the jumbo flying squid fishery shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan agreed by the Commission, in order to provide advice on stock status.

Observer Coverage

16. Members and CNCPs participating in the jumbo flying squid fishery shall ensure a minimum observer coverage⁴ of **15 full time at sea observers or 5% ~~15%~~** of fishing days on Jumbo Flying Squid Jigging vessels flying their flag, and ensure that such observers collect and report data as described in CMM 02-2022 (Data Standards). In ~~2025~~2024, the Scientific Committee and the Compliance and Technical Committee shall review

³Fishing vessels as defined in Article 1 (1)(h) of the Convention.

⁴In accordance with CMM16-2023 (Observer Programme Annex 4) this level of observer coverage does not apply to Peruvian flagged artisanal fishing vessels less than 15m of length fishing for jumbo flying squid.



the observer coverage and provide advice to the Commission on a recommended observer coverage level.

Special Requirements of Developing States

17. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

18. This CMM supersedes CMM 18-2020.

19. This CMM shall be reviewed at its annual meeting in 2025, or sooner if:

a) the Scientific Committee recommends a reduction in total effort or other controls on the squid fishery based on the best scientific information available; or

b) if the number of active vessels or the total gross tonnage equals or exceeds the total number amount in Table 1. of authorized vessels or total gross tonnage as of 31 December 2020, respectively.

The review shall take into account the latest advice of the Scientific Committee and the Compliance and Technical Committee, and shall include a review of the effort levels between Members listed in Table 1 and other Members entitled to develop their Jumbo Flying Squid fisheries.

Table 1: Number and total gross tonnage of vessels referred to in paragraph 2bis 3

Member	Authorized-Vessel Limit Number	Total Gross Tonnage (GT)
China	671	644,820
Korea	50	27,464 45,773
Chinese Taipei	45	45,499
Total- number of vessels and gross tonnage of registered vessels and GT as of 31 December 2020	766	717,783 736,092



11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 8a

Decision XX-2023 on Climate Change

(COMM 11 – Prop 18_rev 1)

ADOPTED

Decision XX-2023 on Climate Change

Recognizing international initiatives to address climate change and its effects, including through the United Nations Framework Convention on Climate Change, the Paris Agreement, and the Glasgow Climate Pact.

Noting the work of the Intergovernmental Panel on Climate Change with specific reference to the Special Report on the Ocean and Cryosphere in a Changing Climate (2019) and the Sixth Assessment Report (2022).

Noting that several regional fisheries management organizations, including the Western and Central Pacific Fisheries Commission and the International Commission for the Conservation of Atlantic Tunas, have recently taken additional steps to prepare for the emerging impacts of climate change on the fisheries under their jurisdiction.

Emphasizing that climate change is leading to shifts in the distribution and abundance of fisheries, altering ecosystems, affecting livelihoods, destabilizing food systems and challenging economic security worldwide.

Further emphasizing that climate change is a global, urgent issue affecting the South Pacific and requiring imminent action by resource managers to ensure sustainable use of marine resources.

Acknowledging that the Commission of the South Pacific Regional Fisheries Management Organisation could benefit from explicit consideration of climate change, potential impacts from climate change on the fisheries under its jurisdiction, and actions that could be taken to reduce or mitigate these impacts.

Recognizing the urgency of developing a comprehensive approach to understanding and addressing the impacts of climate change on fishery resources in the Convention Area, the Commission of the South Pacific Regional Fisheries Management Organisation decides as follows:

1. To task the Scientific Committee (SC) in 2023 and annually thereafter to include climate change as an agenda item. Within this agenda item, the SC will highlight analyses and data collection programs that best illustrate the potential impacts of climate change. As a result of these discussions, the SC is requested to make recommendations to the Commission on how existing conservation and management measures (CMMs) could be designed or proposed new CMMs established for the adaptation and resilience to climate change impacts in the Convention Area.
2. To task the Compliance and Technical Committee (CTC) in 2024⁴³ and annually thereafter to include climate change as an agenda item. Within this agenda item, the CTC will evaluate any ~~compliance or technical~~ issue pursuant to its responsibilities that is related to climate change, take into consideration recommendations, and provide advice to the Commission regarding amendments to existing CMMs or proposed new CMMs that may be necessary as a result of climate change impacts in the Convention Area.
3. To include climate change on its agenda in 2024 and annually thereafter, including the consideration of SC and CTC recommendations and any other considerations regarding climate change impacts.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9a

Opening remarks by Mr Julio José Prado

Minister of Production, Foreign Trade, Investment and Fisheries, Ecuador

[English version]

Dear authorities and delegations of the member countries.

I have the honor to welcome you all to the Eleventh Meeting of the Commission of the South Pacific Regional Fisheries Management Organization. It is a great honor, given that we are also celebrating the tenth year of the creation of the commission, a time in which the commitment to the conservation and sustainable use of fishery resources has been ratified.

On behalf of the President of the Republic of Ecuador, Guillermo Lasso Mendoza, I extend to all of you his cordial greetings.

Ecuador has been developing a transformation of its fishing industry, with a close public-private articulation, where we are aware that the sustainability of resources is one of the main objectives and where there is a high commitment to traceability, continuous improvement of control and monitoring processes. In this sense, Ecuadorian regulations and legislation have evolved, seeking competitiveness, productivity and innovation hand in hand with conservation.

The endorsement of sustainable and sustainable fishing has allowed us to be the host country of this important meeting, which brings together 16 member countries, as well as 3 cooperating countries and 22 non-governmental organizations. This makes this meeting a powerful opportunity for cooperation to respond to challenges of global interest and the need to make decisions regarding management and management measures of the commission.

In this context, Ecuador presented two proposals to improve the information available on giant squid resources and thus strengthen the management of fishery resources.

The first consists of amending the resolution on transshipments, which aims to regulate this activity under the same conditions as other fisheries. This management and conservation measure will allow for better control of fishing activities in the Convention area.

Ecuador's second proposal would allow for a gradual increase in the coverage of onboard observers on giant squid vessels. This percentage would increase from 2024 (10%) and 2025 (20%). Currently, only 5% of trips have observers. The objective is to improve the production of information in order to make better management decisions.

In order to reach consensus on the proposals, they have been presented and discussed with different member countries of the convention, which have shown their interest as they are in line with their policies to fight IUU fishing.



The limitations to the fishery and the management measures to improve the production of information and the control of the activity, cannot in any case undermine the rights of the developing coastal states, where the artisanal sectors seek their livelihoods with the capture of resources such as squid or jack mackerel.

In this way, our country arrives with technical proposals, aimed at collecting scientific and statistical information that will allow us to make decisions in the future to protect the resources and the maritime ecosystem.

Finally, I reiterate Ecuador's commitment to sustainable and sustainable fishing, a vision that we share with the member countries of the Commission of the South Pacific Regional Fisheries Management Organization.

Thank you very much and welcome!



[Spanish version]

Apreciadas autoridades y delegaciones de los países miembros.

Tengo el honor de dar la bienvenida a todos ustedes a la décimo primera Reunión de la Comisión de la Organización Regional de Ordenamiento Pesquero del Pacífico Sur. Un grato honor, pues también celebramos el décimo año de la creación de la comisión, tiempo en el que se ha ratificado el compromiso por la conservación y el uso sostenible de los recursos pesqueros.

En nombre del presidente de la República del Ecuador, Guillermo Lasso Mendoza, extendiendo a todos su cordial saludo.

Ecuador viene desarrollando una transformación de su industria pesquera, con una estrecha articulación pública-privada, donde estamos conscientes que la sostenibilidad de los recursos es uno de los principales objetivos y en la que existe un alto compromiso con la trazabilidad, la mejora continua de los procesos de control y de seguimiento. En ese sentido, ha evolucionado la normativa y la legislación ecuatoriana, buscando la competitividad, productividad e innovación de la mano de la conservación.

El aval de una pesca sostenible y sustentable nos ha permitido ser el país anfitrión de este importante encuentro, que alberga a los 16 países miembros, así como 3 países cooperantes y 22 organizaciones no gubernamentales. Convirtiendo a esta reunión en una potente oportunidad de cooperación para responder ante desafíos de interés global y la necesidad de tomar decisiones frente a las medidas de manejo y ordenamiento de la comisión.

Con este contexto, Ecuador presentó dos propuestas para mejorar la información disponible del recursos calamar gigante y de esta manera fortalecer la administración de los recursos pesqueros.

La primera consiste en la enmienda de la resolución sobre transbordos, la cual tiene como objetivo regular esta actividad en las mismas condiciones de otras pesquerías. Esta medida de manejo y conservación permitirá un mejor control de las actividades pesqueras en el área de la Convención;

La segunda propuesta de Ecuador permitiría aumentar la cobertura de Observadores a Bordo en las embarcaciones de calamar gigante, paulatinamente. Este porcentaje se incrementaría a partir de 2024 (10%) y 2025 (20%). Actualmente, solo el 5% de los viajes tiene observadores. El objetivo es mejorar la producción de información para así poder tomar mejores decisiones de ordenamiento.

Para alcanzar consenso sobre las propuestas, se han presentado y debatido con diferentes países miembros de la convención, los cuales han mostrado su interés ya que se enmarcan en sus políticas de la lucha contra la pesca INDNR.

Las limitaciones a la pesquería y las medidas de ordenamiento para mejorar la producción de información y el control de la actividad, no podrán en ningún caso menoscabar los derechos de los estados costeros en desarrollo, donde los sectores artesanales procuran sus medios de vida con la captura de recursos como el calamar o jurel.

Es así que nuestro país llega con propuestas técnicas, encaminadas a recolectar información científica y estadística que nos permitirá tomar decisiones en el futuro para proteger los recursos y el ecosistema marítimo.

Para finalizar, reitero el compromiso del Ecuador con una pesca sostenible y sustentable, visión que compartimos con los países miembros de la Comisión de la Organización Regional de Ordenamiento Pesquero del Pacífico Sur.

¡Muchas gracias y bienvenidos!



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9b

Chile's opening statement

[English version]

Thank you Chair. Since this is the first time Chile takes the floor at the Commission Meeting and after we have greeted all of its Members and CNCPs as well of the observers present in this meeting, The Government of Chile would like to start by thanking Ecuador, its authorities and all those who have made possible the 11th Meeting of the SPRFMO Commission. We have been able to observe, since last week, the impeccable organization and courtesy of our hosts. We are confident that with these optimal working conditions, the deliberations of this Commission will be facilitated, and effective resolutions will be achieved.

As you may have already noticed, Chile is present at this meeting with a robust and diverse representation. As the head of my delegation and highest governmental authority of the fisheries and aquaculture sector of my country, I am pleased to point out that we are accompanied this time not only by the main representatives of the national fishing industry, but also by a sector usually excluded from this type of meetings; I am referring to the representatives of the shipowners and crew members organizations of the artisanal vessels, who by their own means and accepting the invitation made by the Undersecretariat for Fisheries and Aquaculture, are present here with us today on behalf of the Artisanal Fishers of Chile.

We have also been accompanied by the Ministry of Foreign Affairs and prominent representatives of our scientific community and the institutions dedicated to fishery research, The Chilean Navy. This latter institution is responsible for ensuring the sovereignty of Chile in our territorial sea and Exclusive Economic Zone, and therefore the main agent in the fight against illegal, Unreported and Unregulated Fishing.

Why are we here with such a large delegation? Because this 11th Commission Meeting is of special importance to us. We are here with in this session because we would like to celebrate the recovery of one of the main fisheries of our country, the *Trachurus murphyi* or Chilean Jack Mackerel fishery.

As the public and private representatives of the Chilean fishing sector, we would like to highlight the success of the collaborative work developed by the SPRFMO; the commitment and discipline of its Members which has allowed us to show today an example in fisheries, of how hydrobiological resources, responsibly managed, can not only improve their condition, but also strengthen their exploitation with a precautionary approach, thus contributing to the goal of Food Security not only of our countries but for the population of the world.

We would like to make a special recognition to the exhaustive work of the national and international scientists grouped in the SPRFMO Scientific Committee, under whose leadership the remarkable recovery of this fishery has been achieved.

We would also like to highlight some data generated at the last meeting of the Scientific Committee held in Seoul, South Korea: the estimated spawning biomass for the jack mackerel resource is 14.3 million tons. With this result and under the Maximum Sustainable Yield approach the total allowed catch (TAC) estimations, in the case of the absence of the self-imposed catch limits, would exceed 3 million tons. However, our country believes that it is important to continue to be very careful with the management of this resource.

We would like to highlight that, for the fourth consecutive year, the global catch quota has grown 15%, which is the maximum percentage of expansion that was defined by this Commission. Chile has been particularly respectful in complying with this catch limit. We would like to emphasize that since the Adelaide Agreement, our country has caught 100% of its allocated jack mackerel quota. In addition, during these years, we have agreed important transfers from other members, which allows us to affirm that in the period 2013-2022 more than 78% of this fishery is extracted by Industrial and Artisanal vessels of Chile. These fishing operations are carried out almost entirely in the Exclusive Economic Zone of our country.



Therefore, Chile congratulates the SPRFMO for the remarkable results achieved thanks to the responsible management of one of the most important highly migratory fisheries in the region. And it is for this, and also for other reasons that we will be explaining in the coming days, that our country expresses its interest of increasing our percentage of allocation in the total allowed quota of jack mackerel (*Trachurus murphyi*) that will be defined during this 11th Commission meeting.

We also consider that, having noted the remarkable increase in the available biomass in successive periods, and in accordance with the indications of our scientists, it is reasonable to analyze and to propose to the Commission an upward adjustment in the catch control rule currently set at 15%; we believe that a moderate increase in this percentage will continue to satisfy the precautionary approach, while at the same time it will benefit all countries with an interest in this fishery.

We would like to point out that at a present time like this, it is evaluated not only the capacity of this organization to protect the marine ecosystems and their hydrobiological resources, but also its capacity to incorporate the human, economic and social dimension into the ecosystem approach. Therefore, it has been the industrial and artisanal fishers -and especially those from Chile- who have committed themselves to accomplish the global quota restrictions; those who have rigorously reported the information on their landings; those who have allowed and received scientific observers and incorporated technologies for a better monitoring of their catches.

Now, these same fishes are requesting to this organization to adopt decisions consistent with those who are effectively developing the fishing effort, and who have therefore been co-responsible for this remarkable recovery, allowing the jack mackerel to be abundant again in our coasts today.

We would like you to know that it is difficult to explain this in the small fishing coves along our country, that having great availability of this resource, both in size and quantity, we still have catches well below the Maximum Sustainable Yield. This is a factor that jeopardizes the confidence and therefore the adherence of the actors to follow the measures, especially those who develop small-scale fishing.

Finally, as the Undersecretary of Fisheries and Aquaculture, I would like to reiterate the confidence and adherence of the Government of Chile to the guidelines defined by SPRFMO and our willingness to advance in each of the fisheries of interest to this organization with a transparent and responsible regulation.

We reinforce our willingness to always follow the best available science, under an ecosystem and precautionary approach. In order to ensure the best conditions for the development of responsible fishing activities, not only with the food needs of the current generations, but also of future generations, which we are sure will value the efforts of management developed in these topics.

Thank you very much



[Spanish version]

Gracias Sr. Presidente, esta es la primera vez que Chile toma la palabra en la comisión y después de saludar a todos sus miembros, así como a los observadores presentes en esta reunión, el Gobierno de Chile quiere comenzar agradeciendo a las autoridades del Ecuador y a todos quienes han hecho posible la materialización de esta Undécima Comisión Meeting de OROP-Pacífico Sur. Desde la semana recién pasada hemos podido observar la impecable organización y la cortesía de nuestros anfitriones. Confiamos en que con estas óptimas condiciones de trabajo la deliberación de esta Comisión se verá facilitada y logrará resoluciones eficaces.

Como ustedes quizá ya han notado Chile se hace presente en esta reunión con una robusta y diversa representación. Como jefe de delegación y máxima autoridad gubernamental del sector Pesquero y Acuícola de mi país, tengo el agrado de señalar que no solo nos acompañan los principales representantes de la Industria Pesquera nacional, junto a ellos también está presente un subsector habitualmente excluido de este tipo de foros; me refiero a los representantes de los Gremios de armadores y de tripulantes de la embarcaciones artesanales, quienes por sus propios medios y acogiendo la invitación que le hiciera la Subsecretaría de Pesca y Acuicultura, hoy están presentes aquí con nosotros en representación de los Pescadores Artesanales de Chile.

También nos han acompañado destacados representantes de la comunidad científica y de instituciones dedicadas a la investigación pesquera; y por cierto, también representantes de Ministerio de Relaciones Exteriores y de la Armada de Chile. Esta última institución responsable velar por la soberanía de Chile en su mar territorial y en su Zona Económica Exclusiva, y por tanto principal agente en la lucha contra la Pesca ilegal, no declarada y no reglamentada.

¿Y por qué estamos aquí con una representación tan nutrida? Porque esta 11ª Comisión Meeting tiene una especial importancia para nosotros. Estamos presentes en esta sesión porque queremos celebrar la recuperación de una de las principales pesquerías de nuestro país, el *Trachurus murphyi* o Jurel Chileno.

Los representantes públicos y privados de sector pesquero de Chile queremos destacar el éxito del trabajo colaborativo desarrollado por la OROP Pacífico Sur; el compromiso y la disciplina de sus miembros, que ha sido lo que nos permite mostrar hoy, en pesquería, un ejemplo de cómo los recursos hidrobiológicos administrados con responsabilidad, no solo pueden mejorar su condición, sino que se puede fortalecer su explotación con un enfoque precautorio, para contribuir así al objetivo de Seguridad Alimentaria no solo de nuestros países sino de la población mundial.

Queremos realizar un especial reconocimiento al trabajo exhaustivo de los científicos nacionales e internacionales agrupados en el Comité Científico de OROP-PS, bajo cuyo liderazgo se ha logrado la notable recuperación de esta pesquería.

Por nos permitimos destacar algunos datos generados en la reciente reunión del Comité Científico realizada en Seoul, Korea: La biomasa desovante estimada para el recurso jurel es 14.3 millones de toneladas, con esta cifra y bajo el enfoque de Rendimiento Máximo Sostenible las estimaciones de cuota global en caso de no existir los límites que nos hemos autoimpuesto superarían los 3 millones de toneladas. Sin embargo, nuestro país cree que es importante seguir siendo muy cuidadosos con la administración de este recurso.

Destacamos que por cuarto año consecutivo la cuota de global de extracción ha crecido al 15%, que es el porcentaje máximo de expansión que fue definido por esta misma Comisión. Chile ha sido particularmente respetuoso en el cumplimiento de estos límites de captura. Queremos destacar que desde el Acuerdo de Adelaida nuestro país ha capturado el 100% de su cuota asignada de jurel. Además, durante estos años hemos acordado importantes transferencias desde terceros países, lo que nos permite afirmar que en el periodo 2013-2022 más del 78% esta pesquería es extraída por embarcaciones Industriales y Artesanales de Chile, en faenas de pesca que se realizan casi su totalidad en la Zona Económica Exclusiva de nuestro país.



Chile entonces congratula a OROP-Pacífico Sur, por los notables resultados alcanzados gracias a la gestión responsable de una de las pesquerías altamente migratorias más importantes de la región. Y es por las razones ya enunciadas, y también por otras que iremos exponiendo en los próximos días, que nuestro país manifiesta su interés en incrementar nuestro porcentaje de participación en la cuota global de extracción de *Trachurus murphyi* que definiremos en esta 11ª Comisión.

También consideramos que, habiéndose constatado en períodos sucesivos un notable incremento de la biomasa disponible, y conforme a lo señalado por nuestros científicos, es razonable analizar y proponer un ajuste al alza moderada en el regla de control de captura fijado hoy en el 15%; creemos que un incremento moderado este porcentaje, continuará satisfaciendo el enfoque precautorio, al tiempo que beneficiará, a todos los países con interés en esta pesquería.

Queremos hacer presente que en coyunturas como la actual, no solo se evalúa la capacidad de esta organización para el cuidado de los ecosistemas marinos y sus recursos hidrobiológicos, sino que también se evalúa su capacidad de incorporar en el enfoque ecosistémico la dimensión humana, económica y social. Porque finalmente han sido pescadores industriales y artesanales -y especialmente los de Chile- quienes se han comprometido con las restricciones de cuota global; los que han cumplido rigurosamente con la información de sus desembarcos; los que han recibido a observadores científicos e incorporado tecnologías para un mejor monitoreo de sus capturas.

Ahora son esos mismos pescadores, los que solicitan que esta instancia de administración pesquera adopte decisiones consistentes con quienes efectivamente están desarrollando el esfuerzo pesquero, y que por tanto han sido corresponsables en esta notable recuperación, permitiendo que el Jurel sea hoy abundante en nuestras costas.

Hacemos notar que es difícil explicar en las pequeñas caletas pesqueras a lo largo de nuestro país, que habiendo gran disponibilidad de este recurso, tanto en talla como en cantidad, veamos limitada la captura muy por debajo del Rendimiento Máximo Sostenible. Este es un factor que pone en riesgo la confianza y por ende la adhesión de los actores al cumplimiento de las restricciones, especialmente de quienes desarrollan pesca de menor escala.

Finalmente, como Subsecretario de Pesca y Acuicultura quiero reiterar la confianza y adhesión del Gobierno de Chile a las directrices definidas por OROP-Pacífico Sur y nuestra disposición a avanzar en cada una de las pesquerías que interesan a este foro con una regulación transparente y responsable.

Reforzamos nuestra voluntad de atender siempre a la mejor ciencia disponible, con un enfoque ecosistémico y con una mirada precautoria. Para asegurar así las mejores condiciones para el desarrollo de una actividad pesquera, la cual debe ser responsable no solo con las necesidades de alimentación de las actuales generaciones, sino también de las futuras, las que estamos seguros valoraran el esfuerzo de cuidado desarrollado en espacios como este.

Muchas gracias.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9c

Ecuador's opening statement

[English version]

Greetings, welcome and thanks to the President, the Secretariat and all the staff of the organization, as well as to the authorities of the countries present and accompanying us virtually, to the civil society organizations and others interested in this meeting.

Ecuador's main objective in fisheries is sustainability. The Ecuadorian government and the private sector have been working to guarantee it. To this end, principles such as traceability and transparency are of vital importance.

We are especially interested in achieving consensus on the squid proposal, safeguarding the rights of developing coastal countries such as Ecuador, so that fishermen, especially artisanal fishermen, have the opportunity to develop the fishery.

For several years we have been promoting an increase in the production of fishing information, for which it is vital to resolve the increase in the percentage of observer coverage and the control of transshipment activities.

The state of the jack mackerel resource allows a review of the allocation of the quota increase for the countries. Ecuador seeks to reach the optimum level to operate a vessel.

There are urgent issues, addressed through proposals, whose quantity and quality anticipate in-depth discussions and we hope that success will characterize the outcome of this meeting; but there are also transcendental issues that we cannot ignore:

The effective participation of the Spanish-speaking countries is crucial for the success of this Commission, which involves not only the authorities but also each one of those who participate in the fishing activity, particularly the fishermen.

In this sense, we firmly believe in the need to ensure the use of the Spanish language in the official activities of the Commission. Effective participation is guaranteed and jealously protected by our Convention, and it is the obligation of the Commission to adopt the measures for implementation.

Although the rules of procedure identify English as an operational reference language, it admits that at the convenience of the Commission, other languages may be included with the same rigor and character.

The evidence that 95% of the most relevant fisheries of this Commission are carried out with impact in the coastal countries of Latin America is sufficient argument to adopt measures that allow the introduction, through interpretation and translation, This is why Ecuador did not hesitate to provide simultaneous interpretation for this meeting, nor did it hesitate to recognize the advantages of CALAMASUR's proposal that calls us to adopt the necessary administrative measures to integrate the Spanish language in the relevant information and decision making activities of the Commission.

We believe that the setting of this 11th meeting of the Commission is the ideal place to adopt such a decision and we respectfully ask the Parties for their consent for the necessary administrative decision to be adopted, as it does not require a Resolution per se.

We welcome you all once again to Manta, Ecuador. Thank you.



[Spanish version]

Un saludo, bienvenida y agradecimiento al Presidente, Secretaría y todo el personal de la organización, de igual forma a las autoridades de los países presentes y que nos acompañan virtualmente, a las organizaciones de la sociedad civil y demás interesados en esta reunión.

El principal objetivo de Ecuador en materia pesquera es la sostenibilidad. El gobierno ecuatoriano y el sector privado vienen trabajando para garantizarla. Para ello, principios como la trazabilidad y la transparencia son de vital importancia.

Tenemos especial interés en lograr consenso en la propuesta de calamar, precautelando el derecho de los países costeros en desarrollo como Ecuador, para que los pescadores, en especial los artesanales, tengan la oportunidad de desarrollar la pesquería.

Por varios años venimos impulsando incremento en la producción de información pesquera, para lo que es vital resolver sobre el incremento en el porcentaje de cobertura de observadores y el control de las actividades de trasbordo.

El estado del recurso jurel permite una revisión de la asignación del incremento de la cuota para los países. Ecuador busca llegar al nivel óptimo para operar una embarcación.

Existen temas urgentes, abordados mediante propuestas, cuya cantidad y calidad anticipan debates profundos y esperamos que el éxito caracterice el resultado de esta reunión; pero además existen temas trascendentes que no podemos obviar:

La participación efectiva de los países hispanoparlantes es crucial para el éxito de esta Comisión, lo que involucra no solo a las autoridades sino que igualmente a cada uno de quienes participan de la actividad pesquera, particularmente a los pescadores.

En este sentido, creemos firmemente en la necesidad de que se asegure el uso del idioma castellano en las actividades oficiales de la Comisión. La Participación efectiva se encuentra garantizada y celosamente protegida por nuestra Convención, y es obligación de la Comisión adoptar las medidas de implementación.

Si bien las reglas de procedimiento identifican al idioma inglés como una lengua de referencia operativa, admite que ante la conveniencia de la Comisión se incluyan otros idiomas con el mismo rigor y carácter.

La evidencia de que el 95% de las pesquerías más relevantes de esta Comisión se ejecutan con impacto en los países costeros de América Latina es el argumento suficiente para adoptar las medidas que permitan la introducción, vía interpretación y traducción, del uso del idioma castellano en similares condiciones que el Inglés en las actividades de SPRFMO y es por ello que Ecuador no dudó en proveer para esta reunión de la interpretación simultánea, como tampoco duda en reconocer las ventajas de la propuesta de CALAMASUR que nos llama a adoptar las medidas administrativas necesarias para integrar el idioma español en las actividades relevantes de información y toma de decisiones en la Comisión.

Creemos que el escenario de esta 11ª reunión de la Comisión es el idóneo para adoptar esa decisión y pedimos respetuosamente a las Partes su anuencia para que sea adoptada la decisión administrativa necesaria, pues no se requiere de una Resolución propiamente.

Sean todos nuevamente bienvenidos a Manta, Ecuador. Gracias.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

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COMM 11 – Report ANNEX 9d

Deep Sea Conservation Coalition's intervention on Bottom Fishing

DSCC Intervention on CMM 03 Bottom Fishing Amendments (Prop 8):

Mr. Chairman and fellow delegates, we are convinced that if those 3 rather uncontroversial precepts were implemented, SPRFMO will do 4 things:

Abandon the efforts to protect only a stated percentage of vulnerable marine ecosystems (VMEs) such as deepwater coral and sponges. This means not only declining to decide to protect only 70%, and for example adopting a higher figure of 80 or 90%, but instead following the UNGA resolutions, applying international law, good science and the precautionary and ecosystem approaches.

Such an approach would also work to protect rare and cryptic species.

Decline to follow the suggestion to investigate Total Allowable Catches to be carried over into later years. This is an effort to boost industry following an annual catch of only 20 tonnes of orange roughy, and would result in intensive pressure on VMEs, and is based on an inappropriate and unlawful intention to 'trade-off' between fishing and environmental protection.

Allied to this, TACs need to be set to sustainable levels. In practical terms, this means adopting the lowest of the catch limits derived from the latest Bmin model for each of the orange roughy stocks set out in SC10 report, including subdividing the catch limit for Louisville Ridge into the three stocks - North, Central, and South.

Assess significant adverse impacts (SAI) on VMEs at the scale of the Encounter Area, and decide that the encounter area remain closed, with the Encounter Area being confirmed as 5 NM from the encounter, consistent with the precautionary approach.

We suggest that the SC should be requested to review all taxa thresholds with a view to ensuring the levels are precautionary, taking into account the current knowledge of catchability, and ensuring that research does not damage VMEs.

For the Salas y Gomez Ridge area SPRFMO should not accept any proposals for exploratory bottom fishing in the area of the two ridges as such activity is likely to irrevocably harm these extremely unique and fragile ecosystems. We suggest that SPRFMO should welcome Chile's biodiversity research proposal.

The DSCC suggests that the Commission takes note of the growing impacts of climate change on the marine environment and request the SC establish an intersessional working group to review existing CMMs and to make recommendations to the Commission, and we welcome the United States paper in this regard.

Finally, with respect to amendment of the bottom fishing measure, we welcome the proposal in paragraph 42 bis to establish a register of areas closed as VME.

In closing, we would be remiss if we did not emphasise that closing all seamounts and similar features in the SPRFMO area to bottom fishing is the desired way forward. It encompasses our obligations under the Convention and obligations to protect biodiversity, implements the ecosystem and precautionary approaches, is aligned with the decision of NAFO to close all seamounts to bottom fishing, and has the support of over 100+ NGOs, and over 80,000 people who have signed a petition to the New Zealand government, calling for this.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9e

High Seas Fisheries Group's statement on Bottom Fishing

Dear Members, ladies and gentlemen

I know many of you, and a large number of you have seen the HSFG provide papers over the last decade with advice from the coalface. It is commercial fishing vessels in their normal operations that gather the valuable data that informs this forum.

I do hope some of you have had the time to read our paper as we feel strongly that our points are valid and will withstand scrutiny. We have increasing interest in membership from other countries and we will inform the secretariat as new members join.

RFMOs and members' decisions directly and indirectly affect thousands of people and jobs in the fishing and associated industries, both within the EEZ and on the high seas. We believe members appreciate and consider this significant consequence of reducing TACs.

We regard sustainable fishing as not only a privilege, but a right under international and domestic law. This position is supported by the fish stocks agreement and UNCLOS, and furthermore most RFMOs, including SPRFMO, reflect this through use of words such as Rational use, sustainable use, economic use, and cultural use; terms that are recognised across all forums.

Fishing produces food, a tangible commodity, and with a growing world population food security is increasingly needed.

On the other hand, there are groups who want to undermine commercial fishing. These groups are well coordinated, resourced, and well-funded with lawyers, scientists, and lobbyists, who themselves are well paid from donations gained by selling nothing but a story. This story is often framed in a way to convince the public at large that commercial fishing is causing a huge problem, when in fact a lot is misinformation and distortions of the facts. These groups have people who spend all of their time committed to obtaining funding to damage or end bottom fishing as we know it.

We have highlighted a large and growing imbalance in the SPRFMO approach to managing the impact of bottom fisheries on VMEs. SPRFMO has implemented major spatial fishing closures to bottom fisheries without a clear scientific rationale, and while critical definitional questions remain unresolved, recent closures and measures have not been scientifically consistent with prior Scientific Committee advice or international precedent.

Now, some members are pushing to close even more of the SPRFMO area to bottom fishing, using a brand new scientific approach that doesn't even refer to a VME impact assessment or an estimate of VME status. This new approach is not legally consistent with international requirements under UNGA and the FAO, or with practices in other RFMOs, and it is in clear breach of the requirements of the Bottom Fisheries Impact Assessment Standard that SPRFMO adopted 2019.

We argue that until a defensible impact assessment framework is back in place and the Bottom Fisheries Impact Assessment has been updated, no further changes to CMM-03 should be adopted in relation to move on rules, encounter protocols, additional spatial fishery closures and especially the proposed 50 % reduction in quota. The current rules have forced some vessels out of the fishery, resulting in significant numbers of job losses, something that will only increase if SPRFMO continues this trend SC 10 report recognised this. The New Zealand proposal before members now will, if approved, end bottom fishing on the high seas for NZ.



We are asking members to maintain the status quo for 2 years while the actions proposed in our papers is carried out. The fishing effort is so low (one vessel last year) it cannot possibly impact the stock. While the global pandemic and high fuel prices can be blamed for some of the low catch effort over the last two years, the most significant cause can be attributed to a ‘pandemic of over precaution’.

Finally, we caution that if this precedent is established in SPRFMO – closing a fishery by claiming environmental impacts without even doing an impact assessment to quantify those impacts – then all high seas fisheries could face the same fate.

Thank you



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

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COMM 11 – Report ANNEX 9f

Vanuatu's statement on jack mackerel

Vanuatu supports the Chair's proposal because it is firmly based on the 2017 allocation that was agreed by all members and which was recognized as having taken into account all of the provisions of Article 21 of the Convention.

The Chair's proposal deviates from the 2017 quota allocation in two important ways. Firstly, it recognizes that the "existing level of fishing effort" referred to in Article 21 has become highly concentrated in the coastal waters of Chile, with the result that Chilean vessels now take around 78% of the total catch of jack mackerel.

Consequently, the Chair's proposal allocated an increased share of the TAC to Chile compared to its existing allocation.

The second deviation of the Chair's proposal from the 2017 allocation is to provide a quota allocation to three new entrants to the fishery, Cook Islands, Panama and Belize. The size of the quota allocation is the same at 1,100 tonnes, and is based on the precedents of new entrant allocations provided to Ecuador in 2015 and Cuba in 2017.

It is important to note that the effect of the increased quota allocation to Chile is distributed proportionally across all other members that currently hold quota. The effect of the allocations to new entrants is also distributed proportionally. By so doing, all members are treated fairly.

Vanuatu would therefore reiterate that the Chair's proposal is built upon the agreed 2017 quota allocation and that the two deviations from the current allocation are firmly based on the provisions of Article 21 of the Convention, which in Vanuatu's view has been appropriately complied with.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9g

Russian Federation’s statement on jack mackerel

We adhere to the position that the proposal provided by EU and than presented at the Commission on distribution of shares in the total allowable catch of *Trachurus murphyi* between the countries totally ignored relevant provisions of the Article 21 of the Convention.

When taking decisions regarding participation in fishing for any fishery resource, including the allocation of a total allowable catch or total allowable fishing effort, the Commission shall take into account the historic catch and past and present fishing patterns and practices throughout the relevant range of the fishery resource concerned and the criteria listed in paragraph 1(b) – (j) of the Article 21 of the Convention.

Instead, the EU has proposed a proportional reduction in the share of the catch of some countries without taking into account the relevant criteria.

This approach is based on the fact that *Trachurus murphyi* was caught as a result of the transfer of quotas between members, which, according to paragraph 9 of the CMM 01-2022, that could not be the basis for future agreements on the allocation of fishing opportunities. At the same time, the reduction in the *Trachurus murphyi* quota affects countries that were actively fishing since 2017 until current time and, according to most criteria in accordance with Article 21 of the Convention, could have increased their share in percentage.

Once again, it is important to emphasize that such an approach is inconsistent with paragraph 9 of the CMM 01-2022 and the provisions of Article 21 of the Convention.

Russia cannot agree with such an approach, and does not agree to a reduction in the share of its *Trachurus murphyi* quota.

Reduction of the percentage related to *Trachurus murphyi* quota of one member of the Commission without his consent and without taking in to consideration provisions of Article 21 of the Convention in favor of another member demonstrates unjustifiable discrimination in form and in fact, and is inconsistent with the provisions of the Convention.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9h Peru's statement on jack mackerel

[English version]

The Republic of Peru considers it appropriate to point out the following:

Peru expresses its strong opposition to the decision adopted by the Commission, which has placed us in the situation of having to vote, together with other delegations, against it. This decision particularly affects Peru, as a State Party to the Convention for the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the SPRFMO Convention), which has not given its express consent to submit its jurisdictional waters to the competence of the Commission, a circumstance that has not been duly taken into consideration now and neither on previous occasions.

This measure generates an unfair and inequitable situation that is not based on the criteria of Article 21 of the SPRFMO Convention, instead basically takes into account the transfers of quotas that some members of the Commission have made in previous years, without this constituting a valid criteria for the allocation of quotas or for the change of the percentages of participation in the jack mackerel (*trachurus murphyi*) fishery.

The South Pacific Regional Fisheries Management Organization (SPRFMO) was established for the purpose of ensuring long-term conservation and sustainability in the use of fishery resources on the high seas, including stocks within the Convention Area. Therefore, with regard to jack mackerel stocks, the competence of the Commission to adopt conservation and management measures is limited to the high seas and the jurisdictional waters of those coastal States that have expressly declared their consent to submit them in accordance with Article 20(4)(a)(ii) of the Convention.

Peru is a developing coastal State which has not accepted to submit its jurisdictional waters to the competence of the Commission, but which, in the exercise of its sovereign rights, dictates in relation to the resources existing in such waters measures compatible with those adopted by the Commission. Such measures are also based on the best scientific information available, as well as on research carried out by the Peruvian Sea Institute (Instituto del Mar del Perú) at different times of the year. The results of these investigations are also provided to the Scientific Committee of the SPRFMO, in which Peru participates actively and consistently.

Based on the healthy state of the resource ascertained by the Scientific Committee and based on what was reported at this meeting by its chairman, we agree that an increase of 20% could be adopted as a temporary measure for this year only, to be distributed among all the members. However, we think that the establishment of percentages for such a wide time range as the one proposed for the next 10 years should be based on a previous evaluation by the Scientific Committee and on the analysis, with respect to each one of the participants in the fishery, of all the criteria contemplated in Article 21 of the SPRFMO Convention.

Peru is not able to support an approach that involves or implies a reduction in its participation in the jack mackerel fishery both in the Convention Area and in its jurisdictional waters. This fishery is of fundamental importance for our country in terms of guaranteeing food security for our population, because in Peru 100% of jack mackerel catches are for direct human consumption, and this resource is used to reduce the high rates of malnutrition in our child population. At the same time, it is a fishery that provides economic sustenance for our artisanal fishermen, in a particularly complex economic and social context.



In line with the above, Peru considers appropriate to emphasize that, as a coastal State, it exercises its sovereign rights in relation to the exploration, exploitation, conservation and management of fishery resources in its jurisdictional waters in a responsible and sustainable manner, as well as with due care for the protection of the marine ecosystem as a whole.

All this, as noted above, has been done by Peru in a manner consistent with the objectives of the SPRFMO Convention, and sharing the common interest of ensuring, through appropriate cooperation mechanisms, the compatibility of the conservation and management measures adopted for the Convention Area by the Commission and those established for areas under national jurisdiction by coastal States for straddling fish stocks such as jack mackerel. Therefore, it should be noted that the Commission defines the catch quota on the high seas, and in doing so must respect the exercise of sovereign rights that, based on the best scientific information available, coastal States carry out in their jurisdictional waters.

The fact that Article 4(2) of the SPRFMO Convention states that conservation and management measures adopted for the high seas and those established for areas under national jurisdiction should be compatible does not imply that they have to be identical, or that measures adopted for one area should prevail over the other. Measures may differ in form and scope, as long as they pursue essentially the same long-term conservation and sustainability objectives and can be applied without conflict and without diminishing the positive effects of each other.

In this sense, Peruvian fisheries management measures are based on management approaches and purposes such as those adopted by the SPRFMO, which aim to ensure the long-term sustainability of fishery resources and not to alter the balance of the marine ecosystem. It should be noted that these measures have never been observed or objected by the Scientific Committee with respect to their justification and technical support.

As has been pointed out on this occasion and in previous working sessions of the Organization, Peru contributes significantly to the scientific analysis and to the application of strict measures for conservation.

On the other hand, in relation to what is stated in paragraph 32 of the CMM, Peru would like to reiterate and refer to the content of what has been stated in this regard in its statements in recent years, which are annexed to the reports of the meetings of the Commission.

For the reasons explained above, Peru considers that the decision adopted represents a precedent that does not favor the future distribution of the resource for fishing by the Commission.

At the same time, Peru wishes to emphasize that it is firmly committed to the objectives and the important work of the SPRFMO, which it has been supporting during its 10 years of existence and which, greatly appreciating the framework of cooperation that the organization offers us, we will continue to support with a view to ensuring the sustainable management of the resources within the scope of action of the SPRFMO.

Finally, I would ask you, Mr. Chairman, that this statement be included as an annex to the Final Report of the meeting.

Manta (Ecuador), February 17, 2023.



[English version]

La República del Perú estima oportuno señalar lo siguiente:

El Perú expresa su fuerte oposición a la decisión adoptada por la Comisión, lo que nos ha colocado en la situación de tener que votar, junto con otras delegaciones, en contra de esta. Tal decisión afecta de manera particular al Perú, en su calidad de Estado parte de la Convención para la Conservación y Ordenación de los Recursos Pesqueros de Alta Mar en el Océano Pacífico Sur (la Convención de la OROP-PS) que no ha otorgado su consentimiento expreso para someter sus aguas jurisdiccionales a la competencia de la Comisión, circunstancia que no ha sido tomada debidamente en consideración ahora ni en anteriores oportunidades.

Se genera con esta medida una situación injusta e inequitativa que no está sustentada en los criterios del artículo 21 de la Convención de la OROP-PS, sino básicamente toma en cuenta las transferencias de cuotas que algunos miembros de la Comisión han hecho en los años previos, sin que ello constituya un criterio válido para la asignación de cuotas o para el cambio de los porcentajes de participación en la pesquería del jurel (*trachurus murphyi*).

La Organización Regional de Ordenamiento Pesquero del Pacífico Sur (OROP-PS) fue establecida con el propósito de asegurar la conservación y sostenibilidad de largo plazo en el uso de los recursos pesqueros en alta mar, incluyendo los *stocks* dentro del área de la Convención. Por lo tanto, con relación a los *stocks* del jurel, la competencia de la Comisión para adoptar medidas de conservación y manejo se limita al alta mar y a las aguas jurisdiccionales de aquellos Estados ribereños que han declarado expresamente su consentimiento para someterlas de conformidad con el artículo 20(4)(a)(ii) de la Convención.

El Perú es un Estado ribereño en desarrollo que no ha aceptado someter sus aguas jurisdiccionales a la competencia de la Comisión, pero que, en ejercicio de sus derechos soberanos, dicta en relación con los recursos existentes en tales aguas medidas compatibles con las adoptadas por la Comisión. Tales medidas están además sustentadas en la mejor información científica disponible, a partir de investigaciones que lleva a cabo el Instituto del Mar del Perú en distintos momentos de cada año. Los resultados de esas investigaciones son igualmente proporcionados al Comité Científico de la OROP-PS, donde, por cierto, el Perú participa de manera activa y consistente.

A partir del estado saludable del recurso que ha constatado el Comité Científico y con base en lo informado en esta reunión por su presidente, nosotros estamos de acuerdo en que pudiera adoptarse, como una medida temporal provisional para solamente este año, un incremento del 20% que pudiera repartirse entre todos los miembros. Sin embargo, pensamos que el establecimiento de porcentajes para un rango temporal tan amplio como el propuesto para los próximos 10 años debería estar sustentado en una evaluación previa del Comité Científico y en el análisis, respecto de cada uno de los participantes en la pesquería, de todos los criterios contemplados en el artículo 21 de la Convención de la OROP-PS.

El Perú no está en capacidad de acompañar un planteamiento que involucre o implique una reducción en su participación en la pesquería del jurel tanto en el área de la Convención como en sus aguas jurisdiccionales. Dicha pesquería tiene para nuestro país una importancia fundamental en términos de garantizar la seguridad alimentaria de nuestra población, dado que en el Perú el 100% de las capturas del jurel son para consumo humano directo, y tal recurso se utiliza para rebajar los elevados índices de desnutrición en nuestra población infantil. A su vez, se trata de una pesquería que sirve de sustento económico para nuestros pescadores artesanales, en un contexto económico y social especialmente complejo.



En la línea de lo señalado, el Perú considera oportuno recalcar que, como Estado ribereño, ejerce sus derechos soberanos en relación a la exploración, explotación, conservación y manejo de los recursos pesqueros en sus aguas jurisdiccionales de una manera responsable y sostenible, así como con el debido cuidado para la protección del ecosistema marino en su conjunto.

Todo ello, según se ha apuntado, lo ha venido haciendo en forma consistente con los objetivos de la Convención de la OROP-PS, y compartiendo el interés común de asegurar, a través de mecanismos de cooperación adecuados, la compatibilidad de las medidas de conservación y ordenación adoptadas para el área de la Convención por la Comisión y las establecidas para áreas bajo jurisdicción nacional por los Estados ribereños para las poblaciones de peces transzonales como el jurel. Así, corresponde destacar a partir de lo señalado que la Comisión define la cuota de captura en alta mar, y al hacerlo debe respetar el ejercicio de los derechos soberanos que, con sustento en la mejor información científica disponible, realizan los Estados ribereños en sus aguas jurisdiccionales.

El hecho de que el artículo 4(2) de la Convención de la OROP-PS establezca que las medidas de conservación y ordenación adoptadas para alta mar y las establecidas para áreas bajo jurisdicción nacional deben ser compatibles, no implica que tengan que ser idénticas, o que las medidas adoptadas para un área deban prevalecer sobre la otra. Las medidas pueden diferir en su forma y alcance, siempre que en esencia persigan los mismos objetivos de conservación y sostenibilidad a largo plazo y puedan aplicarse sin conflictos y sin que disminuyan los efectos positivos de las demás.

En ese sentido, las medidas de ordenación pesquera peruana se basan en enfoques y propósitos de gestión como los adoptados por la OROP-PS, que tienen como objetivo garantizar la sostenibilidad a largo plazo de los recursos pesqueros y no alterar el equilibrio del ecosistema marino. Debe destacarse que estas medidas no han sido en ningún momento observadas u objetadas respecto de su justificación y sustento técnico por el Comité Científico.

Como se ha señalado en esta oportunidad y en anteriores sesiones de trabajo de la Organización, el Perú contribuye significativamente al análisis científico y a la aplicación de medidas estrictas para la conservación.

Por otro lado, con relación a lo señalado en el párrafo 32 de la medida, el Perú se permite reiterar y remitir al contenido de lo planteado sobre el particular en sus declaraciones de los últimos años que figuran como anexos en los informes de las reuniones de la Comisión.

En razón a lo expuesto, el Perú considera que la decisión adoptada representa un precedente que no favorece la futura distribución del recurso para la pesca por parte de la Comisión.

Al mismo tiempo, el Perú desea resaltar que está firmemente comprometido con los objetivos y la importante labor de la OROP-PS, que viene apoyando en sus 10 años de existencia y que, ponderando grandemente el marco de cooperación que la organización nos ofrece, seguiremos respaldando con miras a asegurar el manejo sostenible de los recursos comprendidos en el ámbito de actuación de la OROP-PS.

Por último, ruego a usted señor presidente que la presente declaración sea incluida como anexo en el Informe Final de la reunión.

Manta (Ecuador), 17 de febrero de 2023.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9i International Labour Organization intervention

ILO intervention

Promoting better working conditions in the fishing sector has become a key element to achieve comprehensive sustainable development.

It's necessary to integrate the three core pillars of sustainable development into the international and national efforts to achieve sustainability, and this includes promoting better working conditions to the people working in the fishing sector.

Fishing is one of the most challenging and hazardous occupations. According to ILO's research, over 58 million people are engaged in the primary sector of capture fisheries and aquaculture. Over 15 million people are working full-time on-board fishing vessels.

Better working conditions also contribute to address unsustainable practices which are threatening the fisheries sector such as the IUU fishing and overfishing, and also considering the great work that this Commission is doing to achieve sustainable fisheries in the South Pacific, the establishment of a working group with the objective to identify opportunities and analyses potential actions to improve the promotion of better working conditions in the fishing sector, will definitely be another piece in the whole puzzle.

The above has also been done in other Regional Fisheries Management Organizations, such as the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Western and Central Pacific Fisheries Commission (WCPFC).

The International Labour Organization aims to promote rights at work, encourage decent employment opportunities, enhance social protection, and strengthen dialogue on work-related issues.

International labour standards guide States to promote and ensure better working conditions in the fishing sector. Labour standards compliance is key to build a sustainable supply chain in the fishing sector.

ILO has been supporting other initiatives in terms of promoting decent work in fisheries at National, Regional and International levels, including the participation in other Regional Fisheries Management Organizations.

As a result, a common knowledge on decent work in the fishing sector has been achieved by States which has also promoted the improvement of their capacities to take further actions in order to promote better labour conditions in the sector.

A great advantage for this Commission if CPCs support the creation of this working group as a way of showing the commitment that CPCs conforming the SPRFMO have in terms of promoting better working conditions for the fishing sector.

ILO stands ready to support SPRFMO by providing, if necessary, technical assistance and international expertise in this area.

To: Heads of Delegations of SPRFMO Members and CNCPs

Subject: Invitation to a SPRFMO HoD meeting to discuss the 2023 Annual meeting in Manta, Ecuador

Dear colleagues,

I sincerely trust that you and your families across the world are healthy and in good spirits.

The Executive Secretary, subsidiary body Chairpersons, and I have been preparing for the upcoming meetings and have discussed the need for a Heads of Delegations (HoDs) meeting prior to the Annual Meeting, as has been the tradition in SPRFMO. Such a meeting will provide an indication of the expectations and timetable for the Annual Meeting and help identify any potential areas which may require additional meeting time and/or working group discussions.

For this purpose, I would like to propose holding a Heads of Delegation meeting on **14 September 2022** (NZDT). In consultation with the Executive Secretary, I have developed a draft agenda for this meeting, which is attached to this letter as Annex 1.

- [SPRFMO HoD meeting link](#)

The HoD meeting will be virtual using Microsoft Teams following the attached table showing local timing (Annex 2). This is a different timing to our previous HoD meetings, in order to accommodate the varying time zones of SPRFMO Members and Chairpersons and share the burden of less convenient times as it also was requested by several participants.

The main purpose of the meeting will be to present and discuss the tentative timetable and working arrangements for the upcoming meeting of the Commission and its Subsidiary Bodies (see draft agenda in Annex 3), so that Ecuador as the host country, in coordination with the Secretariat, can start planning accordingly. In accordance with our decision last year, I will be proposing that the meetings take place in person with appropriate measures for social distancing. These measures will be presented at the Heads of Delegation meeting.

Subject to the agreement of the Members, I am also proposing a change to the previously agreed meeting dates. After discussions with Ecuador and, considering their constraints regarding the logistics for the meeting, my proposal is to begin and finish the meeting one day later and align those dates with the weekend. This proposal would also support Ecuador's plans for the formal opening of the Commission and associated meeting events and provide a clear break between the meetings of the subsidiary bodies and the Commission.

The tentative timetable goes along the established practice. Together with the fixed agenda items and the discussion of the proposals, there is a degree of flexibility factored into the agenda of COMM11, to allow for the establishment of working groups to progress discussion on complex topics if needed. I am already anticipating a Working Group on Jack Mackerel allocation, but I do not exclude other working groups should the need arise. The HoD meeting will be an opportunity to hear your views in all these matters.

Concerning the Subsidiary Bodies, the tentative timetable is also based on our traditional arrangements. The only exception is that I would propose to convene the FAC ahead of the Commission meeting instead of concurrently as it was the case at last year's Annual Meeting. Results of this arrangement were positive, there was more predictability of the agenda, and the use of time was more efficient amongst delegations.

I look forward to our upcoming meeting.

Sincerely yours,

Luis Molledo
SPRFMO Commission Chairperson



Annex 1: Draft Agenda for the SPRFMO HoD meeting to discuss the 2023 Annual meeting to be held in Manta, Ecuador.

Link: [Click here to join the meeting](#)

1. Opening of meeting
2. Tentative planning of the SPRFMO annual meeting and its subsidiary bodies (Annex 3)
3. Potential working groups
4. Any other business

Annex 2: Local timing for the SPRFMO HoD meeting to discuss the 2023 Annual meeting to be held in Manta, Ecuador.

Location	Local time	Time Zone
Rarotonga, Cook Islands	Tue 13 September, 7:00 pm	CKT
Guayaquil, Republic of Ecuador	Wed 14 September, 12:00 am (midn)	ECT
Lima, Republic of Peru	Wed 14 September, 12:00 am (midn)	PET
Panama, Republic of Panama	Wed 14 September, 12:00 am (midn)	EST
Havana, Republic of Cuba	Wed 14 September, 1:00 am	CDT
Washington DC, United States of America	Wed 14 September, 1:00 am	EDT
Santiago, Republic of Chile	Wed 14 September, 2:00 am	CLST
Tórshavn, Kingdom of Denmark in respect of the Faroe Islands	Wed 14 September, 6:00 am	WEST
Brussels, Belgium, European Union	Wed 14 September, 7:00 am	CEST
Moscow, Russian Federation	Wed 14 September, 8:00 am	MSK
Beijing, People's Republic of China	Wed 14 September, 1:00 pm	CST
Taipei, Chinese Taipei	Wed 14 September, 1:00 pm	CST
Seoul, Republic of Korea	Wed 14 September, 2:00 pm	KST
Canberra, Australia	Wed 14 September, 3:00 pm	AEST
Port Vila, Republic of Vanuatu	Wed 14 September, 4:00 pm	VUT
Wellington, New Zealand	Wed 14 September, 5:00 pm	NZST



Annex 3: Proposed Schedule for the 11th Annual Meeting of the SPRFMO

7 to 17 February 2023 in Manta, Ecuador

Meetings of the Subsidiary Bodies	Session 1 09:00 – 10:30	Session 2 11:00 – 12:30	Session 3 13:30 – 15:30	Session 4 16:00 – 18:00
Tuesday: 7 February 2022	CTC	CTC	CTC	CTC
Wednesday: 8 February 2022	CTC	CTC	CTC	CTC
Thursday: 9 February 2022	CTC	CTC	CTC	FAC
Friday: 10 February 2022	FAC	FAC	FAC	CTC Report/ CMS/IUU adoption
Commission meeting	Session 1 09:00 – 10:30	Session 2 11:00 – 12:30	Session 3 13:30 – 15:30	Session 4 16:00 – 18:00
Monday: 13 February 2022	COMM opening ceremony, Agenda.	Administration, Convention status SC report/workplan	CTC report Adoption of IUU List, CMS, CNCPs. Proposal updates	FAC report adoption
Tuesday: 14 February 2022	Proposals/WG planning	Working Group <i>(To be determined)</i>	Proposals (discussion)	Working Group <i>(To be determined)</i>
Wednesday: 15 February 2022	Proposals (discussion)	Working Group <i>(To be determined)</i>	Proposals (adoption)	Working Group <i>(To be determined)</i>
Thursday: 16 February 2022	Proposals (adoption)	SC workplan adoption, FAC report presentation. Adoption of Budget/ Contributions	Cooperation, Officers, Future meetings, AOB	Proposals (adoption)
Friday: 17 February 2022	Open items	Open session/ Report preparation	COMM report adoption	COMM report adoption and meeting close

Coffee breaks are proposed to be 30 minutes with 1 hr for lunch.

The pre-COMM HoD meeting is proposed to be held at 8am on Monday, 13 February.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9b

Chile's opening statement

[English version]

Thank you Chair. Since this is the first time Chile takes the floor at the Commission Meeting and after we have greeted all of its Members and CNCPs as well of the observers present in this meeting, The Government of Chile would like to start by thanking Ecuador, its authorities and all those who have made possible the 11th Meeting of the SPRFMO Commission. We have been able to observe, since last week, the impeccable organization and courtesy of our hosts. We are confident that with these optimal working conditions, the deliberations of this Commission will be facilitated, and effective resolutions will be achieved.

As you may have already noticed, Chile is present at this meeting with a robust and diverse representation. As the head of my delegation and highest governmental authority of the fisheries and aquaculture sector of my country, I am pleased to point out that we are accompanied this time not only by the main representatives of the national fishing industry, but also by a sector usually excluded from this type of meetings; I am referring to the representatives of the shipowners and crew members organizations of the artisanal vessels, who by their own means and accepting the invitation made by the Undersecretariat for Fisheries and Aquaculture, are present here with us today on behalf of the Artisanal Fishers of Chile.

We have also been accompanied by the Ministry of Foreign Affairs and prominent representatives of our scientific community and the institutions dedicated to fishery research, The Chilean Navy. This latter institution is responsible for ensuring the sovereignty of Chile in our territorial sea and Exclusive Economic Zone, and therefore the main agent in the fight against illegal, Unreported and Unregulated Fishing.

Why are we here with such a large delegation? Because this 11th Commission Meeting is of special importance to us. We are here with in this session because we would like to celebrate the recovery of one of the main fisheries of our country, the *Trachurus murphyi* or Chilean Jack Mackerel fishery.

As the public and private representatives of the Chilean fishing sector, we would like to highlight the success of the collaborative work developed by the SPRFMO; the commitment and discipline of its Members which has allowed us to show today an example in fisheries, of how hydrobiological resources, responsibly managed, can not only improve their condition, but also strengthen their exploitation with a precautionary approach, thus contributing to the goal of Food Security not only of our countries but for the population of the world.

We would like to make a special recognition to the exhaustive work of the national and international scientists grouped in the SPRFMO Scientific Committee, under whose leadership the remarkable recovery of this fishery has been achieved.

We would also like to highlight some data generated at the last meeting of the Scientific Committee held in Seoul, South Korea: the estimated spawning biomass for the jack mackerel resource is 14.3 million tons. With this result and under the Maximum Sustainable Yield approach the total allowed catch (TAC) estimations, in the case of the absence of the self-imposed catch limits, would exceed 3 million tons. However, our country believes that it is important to continue to be very careful with the management of this resource.

We would like to highlight that, for the fourth consecutive year, the global catch quota has grown 15%, which is the maximum percentage of expansion that was defined by this Commission. Chile has been particularly respectful in complying with this catch limit. We would like to emphasize that since the Adelaide Agreement, our country has caught 100% of its allocated jack mackerel quota. In addition, during these years, we have agreed important transfers from other members, which allows us to affirm that in the period 2013-2022 more than 78% of this fishery is extracted by Industrial and Artisanal vessels of Chile. These fishing operations are carried out almost entirely in the Exclusive Economic Zone of our country.



Therefore, Chile congratulates the SPRFMO for the remarkable results achieved thanks to the responsible management of one of the most important highly migratory fisheries in the region. And it is for this, and also for other reasons that we will be explaining in the coming days, that our country expresses its interest of increasing our percentage of allocation in the total allowed quota of jack mackerel (*Trachurus murphyi*) that will be defined during this 11th Commission meeting.

We also consider that, having noted the remarkable increase in the available biomass in successive periods, and in accordance with the indications of our scientists, it is reasonable to analyze and to propose to the Commission an upward adjustment in the catch control rule currently set at 15%; we believe that a moderate increase in this percentage will continue to satisfy the precautionary approach, while at the same time it will benefit all countries with an interest in this fishery.

We would like to point out that at a present time like this, it is evaluated not only the capacity of this organization to protect the marine ecosystems and their hydrobiological resources, but also its capacity to incorporate the human, economic and social dimension into the ecosystem approach. Therefore, it has been the industrial and artisanal fishers -and especially those from Chile- who have committed themselves to accomplish the global quota restrictions; those who have rigorously reported the information on their landings; those who have allowed and received scientific observers and incorporated technologies for a better monitoring of their catches.

Now, these same fishes are requesting to this organization to adopt decisions consistent with those who are effectively developing the fishing effort, and who have therefore been co-responsible for this remarkable recovery, allowing the jack mackerel to be abundant again in our coasts today.

We would like you to know that it is difficult to explain this in the small fishing coves along our country, that having great availability of this resource, both in size and quantity, we still have catches well below the Maximum Sustainable Yield. This is a factor that jeopardizes the confidence and therefore the adherence of the actors to follow the measures, especially those who develop small-scale fishing.

Finally, as the Undersecretary of Fisheries and Aquaculture, I would like to reiterate the confidence and adherence of the Government of Chile to the guidelines defined by SPRFMO and our willingness to advance in each of the fisheries of interest to this organization with a transparent and responsible regulation.

We reinforce our willingness to always follow the best available science, under an ecosystem and precautionary approach. In order to ensure the best conditions for the development of responsible fishing activities, not only with the food needs of the current generations, but also of future generations, which we are sure will value the efforts of management developed in these topics.

Thank you very much



[Spanish version]

Gracias Sr. Presidente, esta es la primera vez que Chile toma la palabra en la comisión y después de saludar a todos sus miembros, así como a los observadores presentes en esta reunión, el Gobierno de Chile quiere comenzar agradeciendo a las autoridades del Ecuador y a todos quienes han hecho posible la materialización de esta Undécima Comisión Meeting de OROP-Pacífico Sur. Desde la semana recién pasada hemos podido observar la impecable organización y la cortesía de nuestros anfitriones. Confiamos en que con estas óptimas condiciones de trabajo la deliberación de esta Comisión se verá facilitada y logrará resoluciones eficaces.

Como ustedes quizá ya han notado Chile se hace presente en esta reunión con una robusta y diversa representación. Como jefe de delegación y máxima autoridad gubernamental del sector Pesquero y Acuícola de mi país, tengo el agrado de señalar que no solo nos acompañan los principales representantes de la Industria Pesquera nacional, junto a ellos también está presente un subsector habitualmente excluido de este tipo de foros; me refiero a los representantes de los Gremios de armadores y de tripulantes de la embarcaciones artesanales, quienes por sus propios medios y acogiendo la invitación que le hiciera la Subsecretaría de Pesca y Acuicultura, hoy están presentes aquí con nosotros en representación de los Pescadores Artesanales de Chile.

También nos han acompañado destacados representantes de la comunidad científica y de instituciones dedicadas a la investigación pesquera; y por cierto, también representantes de Ministerio de Relaciones Exteriores y de la Armada de Chile. Esta última institución responsable velar por la soberanía de Chile en su mar territorial y en su Zona Económica Exclusiva, y por tanto principal agente en la lucha contra la Pesca ilegal, no declarada y no reglamentada.

¿Y por qué estamos aquí con una representación tan nutrida? Porque esta 11ª Comisión Meeting tiene una especial importancia para nosotros. Estamos presentes en esta sesión porque queremos celebrar la recuperación de una de las principales pesquerías de nuestro país, el *Trachurus murphyi* o Jurel Chileno.

Los representantes públicos y privados de sector pesquero de Chile queremos destacar el éxito del trabajo colaborativo desarrollado por la OROP Pacífico Sur; el compromiso y la disciplina de sus miembros, que ha sido lo que nos permite mostrar hoy, en pesquería, un ejemplo de cómo los recursos hidrobiológicos administrados con responsabilidad, no solo pueden mejorar su condición, sino que se puede fortalecer su explotación con un enfoque precautorio, para contribuir así al objetivo de Seguridad Alimentaria no solo de nuestros países sino de la población mundial.

Queremos realizar un especial reconocimiento al trabajo exhaustivo de los científicos nacionales e internacionales agrupados en el Comité Científico de OROP-PS, bajo cuyo liderazgo se ha logrado la notable recuperación de esta pesquería.

Por nos permitimos destacar algunos datos generados en la reciente reunión del Comité Científico realizada en Seoul, Korea: La biomasa desovante estimada para el recurso jurel es 14.3 millones de toneladas, con esta cifra y bajo el enfoque de Rendimiento Máximo Sostenible las estimaciones de cuota global en caso de no existir los límites que nos hemos autoimpuesto superarían los 3 millones de toneladas. Sin embargo, nuestro país cree que es importante seguir siendo muy cuidadosos con la administración de este recurso.

Destacamos que por cuarto año consecutivo la cuota de global de extracción ha crecido al 15%, que es el porcentaje máximo de expansión que fue definido por esta misma Comisión. Chile ha sido particularmente respetuoso en el cumplimiento de estos límites de captura. Queremos destacar que desde el Acuerdo de Adelaida nuestro país ha capturado el 100% de su cuota asignada de jurel. Además, durante estos años hemos acordado importantes transferencias desde terceros países, lo que nos permite afirmar que en el periodo 2013-2022 más del 78% esta pesquería es extraída por embarcaciones Industriales y Artesanales de Chile, en faenas de pesca que se realizan casi su totalidad en la Zona Económica Exclusiva de nuestro país.



Chile entonces congratula a OROP-Pacífico Sur, por los notables resultados alcanzados gracias a la gestión responsable de una de las pesquerías altamente migratorias más importantes de la región. Y es por las razones ya enunciadas, y también por otras que iremos exponiendo en los próximos días, que nuestro país manifiesta su interés en incrementar nuestro porcentaje de participación en la cuota global de extracción de *Trachurus murphyi* que definiremos en esta 11ª Comisión.

También consideramos que, habiéndose constatado en períodos sucesivos un notable incremento de la biomasa disponible, y conforme a lo señalado por nuestros científicos, es razonable analizar y proponer un ajuste al alza moderada en el regla de control de captura fijado hoy en el 15%; creemos que un incremento moderado este porcentaje, continuará satisfaciendo el enfoque precautorio, al tiempo que beneficiará, a todos los países con interés en esta pesquería.

Queremos hacer presente que en coyunturas como la actual, no solo se evalúa la capacidad de esta organización para el cuidado de los ecosistemas marinos y sus recursos hidrobiológicos, sino que también se evalúa su capacidad de incorporar en el enfoque ecosistémico la dimensión humana, económica y social. Porque finalmente han sido pescadores industriales y artesanales -y especialmente los de Chile- quienes se han comprometido con las restricciones de cuota global; los que han cumplido rigurosamente con la información de sus desembarcos; los que han recibido a observadores científicos e incorporado tecnologías para un mejor monitoreo de sus capturas.

Ahora son esos mismos pescadores, los que solicitan que esta instancia de administración pesquera adopte decisiones consistentes con quienes efectivamente están desarrollando el esfuerzo pesquero, y que por tanto han sido corresponsables en esta notable recuperación, permitiendo que el Jurel sea hoy abundante en nuestras costas.

Hacemos notar que es difícil explicar en las pequeñas caletas pesqueras a lo largo de nuestro país, que habiendo gran disponibilidad de este recurso, tanto en talla como en cantidad, veamos limitada la captura muy por debajo del Rendimiento Máximo Sostenible. Este es un factor que pone en riesgo la confianza y por ende la adhesión de los actores al cumplimiento de las restricciones, especialmente de quienes desarrollan pesca de menor escala.

Finalmente, como Subsecretario de Pesca y Acuicultura quiero reiterar la confianza y adhesión del Gobierno de Chile a las directrices definidas por OROP-Pacífico Sur y nuestra disposición a avanzar en cada una de las pesquerías que interesan a este foro con una regulación transparente y responsable.

Reforzamos nuestra voluntad de atender siempre a la mejor ciencia disponible, con un enfoque ecosistémico y con una mirada precautoria. Para asegurar así las mejores condiciones para el desarrollo de una actividad pesquera, la cual debe ser responsable no solo con las necesidades de alimentación de las actuales generaciones, sino también de las futuras, las que estamos seguros valoraran el esfuerzo de cuidado desarrollado en espacios como este.

Muchas gracias.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9c

Ecuador's opening statement

[English version]

Greetings, welcome and thanks to the President, the Secretariat and all the staff of the organization, as well as to the authorities of the countries present and accompanying us virtually, to the civil society organizations and others interested in this meeting.

Ecuador's main objective in fisheries is sustainability. The Ecuadorian government and the private sector have been working to guarantee it. To this end, principles such as traceability and transparency are of vital importance.

We are especially interested in achieving consensus on the squid proposal, safeguarding the rights of developing coastal countries such as Ecuador, so that fishermen, especially artisanal fishermen, have the opportunity to develop the fishery.

For several years we have been promoting an increase in the production of fishing information, for which it is vital to resolve the increase in the percentage of observer coverage and the control of transshipment activities.

The state of the jack mackerel resource allows a review of the allocation of the quota increase for the countries. Ecuador seeks to reach the optimum level to operate a vessel.

There are urgent issues, addressed through proposals, whose quantity and quality anticipate in-depth discussions and we hope that success will characterize the outcome of this meeting; but there are also transcendental issues that we cannot ignore:

The effective participation of the Spanish-speaking countries is crucial for the success of this Commission, which involves not only the authorities but also each one of those who participate in the fishing activity, particularly the fishermen.

In this sense, we firmly believe in the need to ensure the use of the Spanish language in the official activities of the Commission. Effective participation is guaranteed and jealously protected by our Convention, and it is the obligation of the Commission to adopt the measures for implementation.

Although the rules of procedure identify English as an operational reference language, it admits that at the convenience of the Commission, other languages may be included with the same rigor and character.

The evidence that 95% of the most relevant fisheries of this Commission are carried out with impact in the coastal countries of Latin America is sufficient argument to adopt measures that allow the introduction, through interpretation and translation, This is why Ecuador did not hesitate to provide simultaneous interpretation for this meeting, nor did it hesitate to recognize the advantages of CALAMASUR's proposal that calls us to adopt the necessary administrative measures to integrate the Spanish language in the relevant information and decision making activities of the Commission.

We believe that the setting of this 11th meeting of the Commission is the ideal place to adopt such a decision and we respectfully ask the Parties for their consent for the necessary administrative decision to be adopted, as it does not require a Resolution per se.

We welcome you all once again to Manta, Ecuador. Thank you.



[Spanish version]

Un saludo, bienvenida y agradecimiento al Presidente, Secretaría y todo el personal de la organización, de igual forma a las autoridades de los países presentes y que nos acompañan virtualmente, a las organizaciones de la sociedad civil y demás interesados en esta reunión.

El principal objetivo de Ecuador en materia pesquera es la sostenibilidad. El gobierno ecuatoriano y el sector privado vienen trabajando para garantizarla. Para ello, principios como la trazabilidad y la transparencia son de vital importancia.

Tenemos especial interés en lograr consenso en la propuesta de calamar, precautelando el derecho de los países costeros en desarrollo como Ecuador, para que los pescadores, en especial los artesanales, tengan la oportunidad de desarrollar la pesquería.

Por varios años venimos impulsando incremento en la producción de información pesquera, para lo que es vital resolver sobre el incremento en el porcentaje de cobertura de observadores y el control de las actividades de trasbordo.

El estado del recurso jurel permite una revisión de la asignación del incremento de la cuota para los países. Ecuador busca llegar al nivel óptimo para operar una embarcación.

Existen temas urgentes, abordados mediante propuestas, cuya cantidad y calidad anticipan debates profundos y esperamos que el éxito caracterice el resultado de esta reunión; pero además existen temas trascendentes que no podemos obviar:

La participación efectiva de los países hispanoparlantes es crucial para el éxito de esta Comisión, lo que involucra no solo a las autoridades sino que igualmente a cada uno de quienes participan de la actividad pesquera, particularmente a los pescadores.

En este sentido, creemos firmemente en la necesidad de que se asegure el uso del idioma castellano en las actividades oficiales de la Comisión. La Participación efectiva se encuentra garantizada y celosamente protegida por nuestra Convención, y es obligación de la Comisión adoptar las medidas de implementación.

Si bien las reglas de procedimiento identifican al idioma inglés como una lengua de referencia operativa, admite que ante la conveniencia de la Comisión se incluyan otros idiomas con el mismo rigor y carácter.

La evidencia de que el 95% de las pesquerías más relevantes de esta Comisión se ejecutan con impacto en los países costeros de América Latina es el argumento suficiente para adoptar las medidas que permitan la introducción, vía interpretación y traducción, del uso del idioma castellano en similares condiciones que el Inglés en las actividades de SPRFMO y es por ello que Ecuador no dudó en proveer para esta reunión de la interpretación simultánea, como tampoco duda en reconocer las ventajas de la propuesta de CALAMASUR que nos llama a adoptar las medidas administrativas necesarias para integrar el idioma español en las actividades relevantes de información y toma de decisiones en la Comisión.

Creemos que el escenario de esta 11ª reunión de la Comisión es el idóneo para adoptar esa decisión y pedimos respetuosamente a las Partes su anuencia para que sea adoptada la decisión administrativa necesaria, pues no se requiere de una Resolución propiamente.

Sean todos nuevamente bienvenidos a Manta, Ecuador. Gracias.

11TH MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Prop 21

PROPOSAL TO:

<input checked="" type="checkbox"/> Amend <input type="checkbox"/> Create	CMM 01-2022 Conservation and Management Measure for <i>Trachurus murphyi</i>
Submitted by: Republic of Korea	
Summary of the proposal: This proposal proposes that : i) Members and CNCPs not included in Table 1 of CMM 1.01(<i>Trachurus murphyi</i>; 2013) but included in Table 1 of CMM 01-2022 submit effort management plan. * Note : Some Members in Table 1 of CMM 01-2022 are not in Table 1 of CMM 1.01, and thus have no effort limits at the moment. ii) the catches of <i>Trachurus murphyi</i> in 2023 throughout the range of the stock should not exceed [1,035,000 tonnes – overcaught amount in 2022]. * Note : According to the most recent catch report, total catches in the <i>Trachurus murphyi</i> fishery in 2022 exceeded the TAC(900,000 tonnes). The overcaught amount should be deducted from the 2023 TAC(1,035,000 tonnes) recommended by the Scientific Committee. iii) the Commission extend the application of the percentages in Table 2 by one year and commence a process to develop an allocation framework. * Note : Discussions on allocation are highly sophisticated and require difficult negotiations. As such, usually, RFMOs establish a working group or workshop dedicated to the discussion of the single issue of allocation. Although such a process does not always guarantee a success, it would significantly increase the chance of reaching an agreement. If the existing percentages for all Members and CNCPs in the Table are to be changed, the Commission should have a more focused discussion through an effective process. However, at the same time, Korea is willing to discuss the substances of the allocation issue in this meeting, if there is a concrete proposal put forward.	
Objective of the proposal: The objective of this proposal is to rebuild the stock of <i>Trachurus murphyi</i> and ensure its long-term conservation and sustainable management in accordance with the objective of the Convention.	
Has the proposal financial impacts or influence on the Secretariat work? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Ref: COMM11-PROP21	Received on: 24 December 2022

CMM 01-2023~~2~~

Conservation and Management Measure for *Trachurus murphyi*
(supersedes CMM 01-2022~~1~~)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out ~~on 27 September to 2 October 2021 in 2022~~ and the advice of the Scientific Committee;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-2022) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-2022 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)¹ of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table. [Members and CNCPs not included in Table 1 of CMM 1.01 \(*Trachurus murphyi*; 2013\) but included in Table 1 of this CMM shall inform the Executive Secretary of their effort management plan for 2023 by \[1 April 2023\] for circulation to all Members and CNCPs.](#)

Catch Management

5. In 2023~~2~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~817,943~~940,635 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.
6. Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.
7. In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.
8. The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.
9. By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.
10. Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 202~~2~~3 throughout the range of the stock should not exceed ~~900~~1,035,000 tonnes. [However, the overcaught amount of catches in the previous year, if any, shall be deducted from 1,035,000 tonnes. Notwithstanding this adjustment, the allocation process set out in paragraph 5 and Table 1 shall be executed based on 1,035,000 tonnes.](#)
- ~~11.~~ The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph 10. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph 10 has been reached.

¹ In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.





Data Collection and Reporting

12. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2022 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.
13. When total catches have reached 70% of the amount indicated in paragraph 10, Members and CNCPs agree to implement a 15-day reporting period:
 - a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
 - b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.
14. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.
15. Except as described in paragraphs 12 and 13 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2022 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.
16. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.
17. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.
18. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-2022 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.
19. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2022 (Data Standards).
20. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 202~~2~~³ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 202~~2~~³ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 202~~2~~³ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report together with the reasons for not doing so.

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



21. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.
22. The information collected under paragraphs ~~112~~, ~~135~~ and ~~1820~~, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (202~~23~~) agreed by the Commission, in order to provide updated advice on stock status and recovery.
23. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:
 - a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
 - b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.
24. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2022 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12-24, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.
26. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10 of this CMM and the total catch allocated in paragraph 5 of this CMM.



27. Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph 26 above, they agree to:
- submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
 - report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
 - cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.
28. At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.
29. In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

30. In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

31. This Measure shall be reviewed by the Commission in 2023~~4~~. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), CMM 01-2019 (*Trachurus murphyi*), CMM 01-2020 (*Trachurus murphyi*)~~and~~, CMM 01-2021 (*Trachurus murphyi*) and CMM 01-2022 (*Trachurus murphyi*) as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.
32. Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2023~~2~~ inclusive. The Commission shall commence in [2023] a process to develop an allocation framework for the percentages included in Table 2 with a view to reaching an agreement and applying the framework no later than [2025]. In doing so, the Commission shall take into account Articles 19 and 21 of the Convention.



Table 1: Tonnages in 2024³ fishery as referred to in paragraph 5.

Member / CNCP	Tonnage
Chile	581 074 668,235
China	57 129 65,699
Cook Islands	[0]
Cuba	2 008 2,309
Ecuador	11 374 13,080
European Union	54 977 63,224
Faroe Islands	9 978 11,475
Korea	11 540 13,271
Peru (HS)	18 256 20,994
Russian Federation	29 543 33,974
Vanuatu	42 064 48,374
Total	817 943 940,635

Table 2: Percentages³ related to the catches referred to in paragraph 10.

Member / CNCP	%
Chile	64.5638
China	6.3477
Cook Islands	[0.0000]
Cuba	0.2231
Ecuador	1.2638
European Union	6.1086
Faroe Islands	1.1087
Korea	1.2822
Peru (HS)	2.0284
Russian Federation	3.2825
Vanuatu	4.6738

³ These percentages shall apply from 2018 to 2023⁴ inclusive as amended in 2023⁵ and as extended in 2023⁶.

11TH MEETING OF THE COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – WP 24 rev1

Chairperson's proposal to amend CMM 01 *Trachurus murphyi*



CMM 01-202~~2~~3

Conservation and Management Measure for *Trachurus murphyi* (supersedes CMM 01-202~~1~~2)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out ~~on 27 September to 2 October 2021 in 2022,~~ and the advice of the Scientific Committee and the SC multi annual workplan including the Management Strategy evaluation;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-202~~2~~3) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-202~~2~~3 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

~~4. Relevant Members and CNCPs shall limit the total gross tonnage (GT)[‡] of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.~~

Catch Management

~~5.4.~~ In 202~~23~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~817,943~~ 981,833 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.

~~6.5.~~ Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.

~~7.6.~~ In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.

~~8.7.~~ The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.

~~9.8.~~ By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.

~~10.9.~~ Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 202~~23~~ throughout the range of the stock should not exceed ~~900,000~~ 1,080,000 tonnes.

~~11.10.~~ The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph ~~10.9~~. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph ~~10.9~~ has been reached.

[‡]In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

~~12.11.~~ Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2022 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.

~~13.12.~~ When total catches have reached 70% of the amount indicated in paragraph ~~109~~, Members and CNCPs agree to implement a 15-day reporting period:

- a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
- b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.

~~14.13.~~ The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.

~~15.14.~~ Except as described in paragraphs ~~1211~~ and ~~1312~~ above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2022 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

~~16.15.~~ The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

~~17.16.~~ Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.

~~18.17.~~ Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-202~~23~~ (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.

~~19.18.~~ The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2022 (Data Standards).

~~20.19.~~ In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 202~~23~~ Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 202~~23~~ fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 202~~23~~ Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



together with the reasons for not doing so.

21.20. In accordance with Article 24(2) of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.

22.21. The information collected under paragraphs 11, ~~13~~14 and ~~18~~19, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (202~~2~~3) agreed by the Commission, in order to provide updated advice on stock status and recovery.

23.22. Contracting Parties and CNCPs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCPs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNCP shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNCP. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCPs under international law. In particular, nothing in this paragraph shall be construed to affect:

- a) the sovereignty of Contracting Parties and CNCPs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
- b) the exercise by Contracting Parties and CNCPs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.

24.23. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCPs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2022 (Data Standards). In the case of the flagged vessels of a Member or CNCP undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25.24. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCPs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCPs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs ~~12~~11-24~~2~~3, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

26.25. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph ~~10~~9 of this CMM and the total catch



allocated in paragraph 54 of this CMM.

~~27-26.~~ Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph ~~2625~~ above, they agree to:

- a) submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
- b) report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
- c) cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.

~~28-27.~~ At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.

~~29-28.~~ In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

~~30-29.~~ In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

~~31-30.~~ This Measure shall be reviewed by the Commission in 202~~34~~. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), CMM 01-2019 (*Trachurus murphyi*), CMM 01-2020 (*Trachurus murphyi*)~~and~~, CMM 01-2021 (*Trachurus murphyi*) and CMM 01-2022 (*Trachurus murphyi*)—as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.

~~32-31.~~ Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2023 to 2033 inclusive.~~Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 20223 inclusive.~~



Table 1: Tonnages in 2023 fishery as referred to in paragraph 4.

Member / CNCP	Tonnage
<u>Belize</u>	<u>1,100</u>
<u>Chile</u>	<u>716,758</u>
<u>China</u>	<u>63,136</u>
<u>Cook Islands</u>	<u>1,100</u>
<u>Cuba</u>	<u>2,219</u>
<u>Ecuador</u>	<u>12,570</u>
<u>European Union</u>	<u>60,758</u>
<u>Faroe Islands</u>	<u>11,027</u>
<u>Korea</u>	<u>12,753</u>
<u>Panama</u>	<u>1,100</u>
<u>Peru (HS)</u>	<u>20,175</u>
<u>Russian Federation</u>	<u>32,649</u>
<u>Vanuatu</u>	<u>46,487</u>
<u>Total</u>	<u>981,833</u>

Table 2: Percentages³ related to the catches referred to in paragraph 9.

Member / CNCP	%
<u>Belize</u>	<u>0.1019%</u>
<u>Chile</u>	<u>66.3665%</u>
<u>China</u>	<u>5.8459%</u>
<u>Cook Islands</u>	<u>0.1019%</u>
<u>Cuba</u>	<u>0.2055%</u>
<u>Ecuador</u>	<u>1.1639%</u>
<u>European Union</u>	<u>5.6257%</u>
<u>Faroe Islands</u>	<u>1.0211%</u>
<u>Korea</u>	<u>1.1808%</u>
<u>Panama</u>	<u>0.1019%</u>
<u>Peru (HS)</u>	<u>1.8681%</u>
<u>Russian Federation</u>	<u>3.0230%</u>
<u>Vanuatu</u>	<u>4.3044%</u>

³ These percentages shall apply from 2023 to 2033 inclusive. .



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9f

Vanuatu's statement on jack mackerel

Vanuatu supports the Chair's proposal because it is firmly based on the 2017 allocation that was agreed by all members and which was recognized as having taken into account all of the provisions of Article 21 of the Convention.

The Chair's proposal deviates from the 2017 quota allocation in two important ways. Firstly, it recognizes that the "existing level of fishing effort" referred to in Article 21 has become highly concentrated in the coastal waters of Chile, with the result that Chilean vessels now take around 78% of the total catch of jack mackerel.

Consequently, the Chair's proposal allocated an increased share of the TAC to Chile compared to its existing allocation.

The second deviation of the Chair's proposal from the 2017 allocation is to provide a quota allocation to three new entrants to the fishery, Cook Islands, Panama and Belize. The size of the quota allocation is the same at 1,100 tonnes, and is based on the precedents of new entrant allocations provided to Ecuador in 2015 and Cuba in 2017.

It is important to note that the effect of the increased quota allocation to Chile is distributed proportionally across all other members that currently hold quota. The effect of the allocations to new entrants is also distributed proportionally. By so doing, all members are treated fairly.

Vanuatu would therefore reiterate that the Chair's proposal is built upon the agreed 2017 quota allocation and that the two deviations from the current allocation are firmly based on the provisions of Article 21 of the Convention, which in Vanuatu's view has been appropriately complied with.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9g

Russian Federation’s statement on jack mackerel

We adhere to the position that the proposal provided by EU and than presented at the Commission on distribution of shares in the total allowable catch of *Trachurus murphyi* between the countries totally ignored relevant provisions of the Article 21 of the Convention.

When taking decisions regarding participation in fishing for any fishery resource, including the allocation of a total allowable catch or total allowable fishing effort, the Commission shall take into account the historic catch and past and present fishing patterns and practices throughout the relevant range of the fishery resource concerned and the criteria listed in paragraph 1(b) – (j) of the Article 21 of the Convention.

Instead, the EU has proposed a proportional reduction in the share of the catch of some countries without taking into account the relevant criteria.

This approach is based on the fact that *Trachurus murphyi* was caught as a result of the transfer of quotas between members, which, according to paragraph 9 of the CMM 01-2022, that could not be the basis for future agreements on the allocation of fishing opportunities. At the same time, the reduction in the *Trachurus murphyi* quota affects countries that were actively fishing since 2017 until current time and, according to most criteria in accordance with Article 21 of the Convention, could have increased their share in percentage.

Once again, it is important to emphasize that such an approach is inconsistent with paragraph 9 of the CMM 01-2022 and the provisions of Article 21 of the Convention.

Russia cannot agree with such an approach, and does not agree to a reduction in the share of its *Trachurus murphyi* quota.

Reduction of the percentage related to *Trachurus murphyi* quota of one member of the Commission without his consent and without taking in to consideration provisions of Article 21 of the Convention in favor of another member demonstrates unjustifiable discrimination in form and in fact, and is inconsistent with the provisions of the Convention.



11TH MEETING OF THE COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 7a

Conservation and Management Measure 01-2023 *Trachurus murphyi*

(COMM 11 – WP 24_rev1)

ADOPTED

By VOTE for ADOPTION 13 (Y) to 3 (N)



CMM 01-202~~2~~3

Conservation and Management Measure for *Trachurus murphyi* (supersedes CMM 01-202~~1~~2)

The Commission of the South Pacific Regional Fisheries Management Organisation;

NOTING that the *Trachurus murphyi* stock remains at very low levels;

CONCERNED in particular with the low levels of the current biomass, historically high fishing mortality, the need to maintain low fishing mortality, and the high degree of associated uncertainties;

TAKING INTO ACCOUNT the outcomes of the stock assessment carried out ~~on 27 September to 2 October 2021 in 2022,~~ and the advice of the Scientific Committee and the SC multi annual workplan including the Management Strategy evaluation;

BEARING IN MIND the commitment to apply the precautionary approach and take decisions based on the best scientific and technical information available as set out in Article 3 of the Convention;

RECOGNISING that a primary function of the Commission is to adopt Conservation and Management Measures (CMMs) to achieve the objective of the Convention, including, as appropriate, CMMs for particular fish stocks;

AFFIRMING its commitment to rebuilding the stock of *Trachurus murphyi* and ensuring its long-term conservation and sustainable management in accordance with the objective of the Convention;

RECOGNISING the need for effective monitoring and control and surveillance of fishing for *Trachurus murphyi* in the implementation of this measure pending the establishment of monitoring, control and surveillance measures pursuant to Article 27 of the Convention;

NOTING Article 4(1) regarding the need to ensure compatibility of conservation and management measures established for fishery resources that are identified as straddling areas under the national jurisdiction of a coastal State Contracting Party and the adjacent high seas of the Convention Area and acknowledge their duty to cooperate to this end;

BEARING IN MIND, the Findings and Recommendations of the Review Panel, from 5 June 2018, convened pursuant to Article 17 and Annex II of the Convention, in relation to the Objection by the Republic of Ecuador and their statements on possible ways forward in relation to that objection;

RECALLING Articles 4(2), 20(3), 20(4) and 21(2) of the Convention;

RECALLING also Article 21(1) of the Convention;

ADOPTS the following CMM in accordance with Articles 8 and 21 of the Convention:

General Provisions

1. This CMM applies to fisheries for *Trachurus murphyi* undertaken by vessels flagged to Members and Cooperating Non-Contracting Parties (CNCs) included on the Commission Record of Vessels (CMM 05-202~~2~~3) in the Convention Area and, in accordance with Article 20(4)(a)(iii) and with the express consent of Chile and Ecuador, to fisheries for *Trachurus murphyi* undertaken by Chile and Ecuador in areas under their national jurisdiction.
2. Only fishing vessels duly authorised pursuant to Article 25 of the Convention and in accordance with CMM 05-202~~2~~3 (Record of Vessels) that are flagged to Members and Cooperating Non-Contracting Parties (CNCs) shall participate in the fishery for *Trachurus murphyi* in the Convention Area.
3. This CMM is not to be considered a precedent for future allocation decisions.



Effort Management

~~4.~~ Relevant Members and CNCPs shall limit the total gross tonnage (GT)[‡] of vessels flying their flag and participating in the fishing activities described in Article 1, (1)(g)(i) and (ii) of the Convention in respect of the *Trachurus murphyi* fisheries in the Convention Area to the total tonnage of their flagged vessels that were engaged in such fishing activities in 2007 or 2008 or 2009 in the Convention Area and as set out in Table 1 of CMM 1.01 (*Trachurus murphyi*; 2013). Such Members and CNCPs may substitute their vessels as long as the total level of GT for each Member and CNCP does not exceed the level recorded in that table.

Catch Management

~~5.4.~~ In 202~~23~~ the total catch of *Trachurus murphyi* in the area to which this CMM applies in accordance with paragraph 1 shall be limited to ~~817,943~~ 981,833 tonnes. Members and CNCPs are to share in this total catch in the tonnages set out in Table 1 of this CMM.

~~6.5.~~ Catches will be attributed to the flag State whose vessels have undertaken the fishing activities described in Article 1 (1)(g)(i) and (ii) of the Convention.

~~7.6.~~ In the event that a Member or CNCP reaches 70% of its catch limit set out in Table 1, the Executive Secretary shall inform that Member or CNCP of that fact, with a copy to all other Members and CNCPs. That Member or CNCP shall close the fishery for its flagged vessels when the total catch of its flagged vessels is equivalent to 100% of its catch limit. Such Member or CNCP shall notify promptly the Executive Secretary of the date of the closure.

~~8.7.~~ The provisions of this CMM are without prejudice to the right of Members and CNCPs to adopt measures limiting vessels flying their flag and fishing for *Trachurus murphyi* in the Convention Area to catches less than the limits set out in Table 1. In any such case, Members and CNCPs shall notify the Executive Secretary of the measures, when practicable, within 1 month of adoption. Upon receipt, the Executive Secretary shall circulate such measures to all Members and CNCPs without delay.

~~9.8.~~ By 31 December each year a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch up to the limit set out in Table 1, without prejudice to future agreements on the allocation of fishing opportunities, subject to the approval of the receiving Member or CNCP. When receiving fishing entitlement by transfer, a Member or CNCP may either allocate it domestically or endorse arrangements between owners participating in the transfer. Members and CNCPs receiving fishing entitlements by transfer who have consented to a total allowable catch that will apply throughout the range of the fishery resource under Art 20(4)(a)(iii) may pursue those entitlements in the Convention Area and in their areas under their national jurisdiction. Before the transferred fishing takes place, the transferring Member or CNCP shall notify the transfer to the Executive Secretary for circulation to Members and CNCPs without delay.

~~10.9.~~ Members and CNCPs agree, having regard to the advice of the Scientific Committee, that catches of *Trachurus murphyi* in 202~~23~~ throughout the range of the stock should not exceed ~~900,000~~ 1,080,000 tonnes.

~~11.10.~~ The Executive Secretary shall inform Members and CNCPs when catches of *Trachurus murphyi* in the range of its distribution have reached 70% of the amount referred to in paragraph ~~10.9~~. The Executive Secretary shall notify Members and CNCPs when the amount referred to in paragraph ~~10.9~~ has been reached.

[‡]In the event that GT is not available, Members and CNCPs shall utilise Gross Registered Tonnage (GRT) for the purposes of this CMM.



Data Collection and Reporting

~~12~~11. Members and CNCPs participating in the *Trachurus murphyi* fishery shall report in an electronic format the monthly catches of their flagged vessels to the Secretariat within 20 days of the end of the month, in accordance with CMM 02-2022 (Data Standards) and using templates prepared by the Secretariat and available on the SPRFMO website.

~~13~~12. When total catches have reached 70% of the amount indicated in paragraph ~~10~~9, Members and CNCPs agree to implement a 15-day reporting period:

- a) for purposes of implementing this system, the calendar month shall be divided into 2 reporting periods, viz: day 1 to day 15 and day 16 to the end of the month;
- b) once the 15-day reporting has been activated, Members and CNCPs shall report their catches within 10 days of the end of each period, excepting the first report, which shall be made within 20 days of the end of the period.

~~14~~13. The Executive Secretary shall circulate monthly catches, aggregated by flag State, to all Members and CNCPs on a monthly basis. Once 15-day reporting has been activated the Executive Secretary shall circulate 15-day catches, aggregated by flag State, to all Members and CNCPs on a 15-day basis.

~~15~~14. Except as described in paragraphs ~~12~~11 and ~~13~~12 above, each Member and CNCP participating in the *Trachurus murphyi* fishery shall collect, verify, and provide all required data to the Executive Secretary, in accordance with CMM 02-2022 (Data Standards) and the templates available on the SPRFMO website, including an annual catch report.

~~16~~15. The Executive Secretary shall verify the annual catch reports submitted by Members and CNCPs against the submitted data (tow-by-tow in the case of trawlers, and set-by-set or trip-by-trip in the case of purse-seine fishing vessels). The Executive Secretary shall inform Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

~~17~~16. Members and CNCPs participating in the *Trachurus murphyi* fisheries shall implement a vessel monitoring system (VMS) in accordance with CMM 06-2020 (VMS) and other relevant CMMs adopted by the Commission.

~~18~~17. Each Member and CNCP participating in the *Trachurus murphyi* fishery shall provide the Executive Secretary a list of vessels² they have authorised to fish in the fishery in accordance with Article 25 of the Convention and CMM 05-20223 (Record of Vessels) and other relevant CMMs adopted by the Commission. They shall also notify the Executive Secretary of the vessels that are actively fishing or engaged in transshipment in the Convention Area within 20 days of the end of each month. The Executive Secretary shall maintain lists of the vessels so notified and will make them available on the SPRFMO website.

~~19~~18. The Executive Secretary shall report annually to the Commission on the list of vessels having actively fished or been engaged in transshipment in the Convention Area during the previous year using data provided under CMM 02-2022 (Data Standards).

~~20~~19. In order to facilitate the work of the Scientific Committee, Members and CNCPs shall provide their annual national reports, in accordance with the existing guidelines for such reports, in advance of the 20223 Scientific Committee meeting. Members and CNCPs shall also provide observer data for the 20223 fishing season to the Scientific Committee to the maximum extent possible. The reports shall be submitted to the Executive Secretary at least one month before the 20223 Scientific Committee meeting in order to ensure that the Scientific Committee has an adequate opportunity to consider the reports in its deliberations. Members should notify the Executive Secretary in the event they will not be submitting an annual report

² Fishing vessels as defined in Article 1 (1)(h) of the Convention.



together with the reasons for not doing so.

21.20. In accordance with Article 24(2) of the Convention, all Members and CNCs participating in the *Trachurus murphyi* fishery shall provide a report describing their implementation of this CMM in accordance with the timelines specified in CMM 10-2020 (Compliance Monitoring Scheme). On the basis of submissions received the CTC shall develop a template to facilitate future reporting. The implementation reports will be made available on the SPRFMO website.

22.21. The information collected under paragraphs 11, 13.14 and 18.19, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee. The Scientific Committee will conduct the necessary analysis and assessment, in accordance with its SC Multi-annual workplan (20223) agreed by the Commission, in order to provide updated advice on stock status and recovery.

23.22. Contracting Parties and CNCs, as port States, shall, subject to their national laws, facilitate access to their ports on a case-by-case basis to reefer vessels, supply vessels and vessels fishing for *Trachurus murphyi* in accordance with this CMM. Contracting Parties and CNCs shall implement measures to verify catches of *Trachurus murphyi* caught in the Convention Area that are landed or transhipped in its ports. When taking such measures, a Contracting Party or CNC shall not discriminate in form or fact against fishing, reefer or supply vessels of any Member or CNC. Nothing in this paragraph shall prejudice the rights, jurisdiction and duties of these Contracting Parties and CNCs under international law. In particular, nothing in this paragraph shall be construed to affect:

- a) the sovereignty of Contracting Parties and CNCs over their internal, archipelagic and territorial waters or their sovereign rights over their continental shelf and in their exclusive economic zone;
- b) the exercise by Contracting Parties and CNCs of their sovereignty over ports in their territory in accordance with international law, including their right to deny entry thereto as well as adopt more stringent port State measures than those provided for in this CMM and other relevant CMMs adopted by the Commission.

24.23. Until the Commission adopts an Observer Programme in accordance with Article 28 of the Convention, all Members and CNCs participating in the *Trachurus murphyi* fishery shall ensure a minimum of 10% scientific observer coverage of trips for trawlers and purse seiners flying their flag and ensure that such observers collect and report data as described in CMM 02-2022 (Data Standards). In the case of the flagged vessels of a Member or CNC undertaking no more than 2 trips in total, the 10% observer coverage shall be calculated by reference to active fishing days for trawlers and sets for purse seine vessels.

Cooperation in Respect of Fisheries in Adjacent Areas Under National Jurisdiction

25.24. Members and CNCs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies in accordance with paragraph 1, and Members and CNCs participating in *Trachurus murphyi* fisheries in the area to which this CMM applies, shall cooperate in ensuring compatibility in the conservation and management of the fisheries. Members and CNCs participating in *Trachurus murphyi* fisheries in areas under national jurisdiction adjacent to the area to which this CMM applies are invited to apply the measures set out in paragraphs 12.11-24.23, insofar as they are applicable, to vessels associated with the *Trachurus murphyi* fisheries in their areas under national jurisdiction. They are also requested to inform the Executive Secretary of the Conservation and Management Measures in effect for *Trachurus murphyi* in areas under their national jurisdiction.

26.25. Acknowledging the duty to cooperate to promote and ensure that CMMs established for the high seas and those adopted for areas under national jurisdiction are compatible, as required by Article 4 paragraph 2 and Article 8 (f) of the Convention, coastal State Contracting Parties participating in the *Trachurus murphyi* fishery in areas under national jurisdiction that have not given their express consent under Article 20 paragraph 4 (a) (ii), will undertake their utmost efforts to restrain from authorising catches that exceed the difference between the amount agreed in paragraph 10.9 of this CMM and the total catch



allocated in paragraph 54 of this CMM.

~~27-26.~~ Where, due to exceptional and unforeseen circumstances in the stock biomass in the inter-sessional period, coastal States that have not given their express consent under Article 20 paragraph 4 (a) (ii) establish domestic measures concerning catches of *Trachurus murphyi* in areas under their national jurisdiction that may result in exceeding such difference as indicated in paragraph ~~2625~~ above, they agree to:

- a) submit to the Secretariat, as a matter of urgency and no later than 15 days after their adoption, a report explaining to the Commission how the national measures concerning the *Trachurus murphyi* fishery in areas under their national jurisdiction are compatible with those adopted by the Commission, and how they have taken into account the requirements of Article 4 paragraph 2 (a), (b) and (c) of the Convention;
- b) report to the Secretariat any subsequent changes to the national measures, no later than 15 days after their adoption;
- c) cooperate in the coordination of the conservation measures they intend to apply with the Scientific Committee and the Commission to ensure that the intended measures do not undermine the effectiveness of the conservation and management measures adopted by the Commission.

~~28-27.~~ At its next annual meeting, the Scientific Committee will assess the information received and provide advice to the Commission regarding the possible impact of the national measures adopted on the *Trachurus murphyi* fishery. The CTC will consider the information provided by the coastal State and whether the national measures it adopted are compatible with those established by the Commission and will advise the Commission accordingly. The Commission will consider measures to ensure compatible management, considering the advice of the Scientific Committee and the CTC.

~~29-28.~~ In case any Member or CNCP considers that the information presented by the coastal State has not taken into account the requirements of Article 4, 2 (a), (b) and (c) of the Convention, it may request a special meeting of the Commission in accordance with Article 7 paragraphs 3 and 4 of the Convention and Regulation 3 of the SPRFMO Rules of Procedure, except that such special meeting may take place by electronic means, under the same quorum provided for by the Rules of Procedure for special meetings.

Special Requirements of Developing States

~~30-29.~~ In recognition of the special requirements of developing States, in particular small island developing States and territories and possessions in the region, Members and CNCPs are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States and territories and possessions to implement this CMM.

Review

~~31-30.~~ This Measure shall be reviewed by the Commission in 202~~34~~. The review shall take into account the latest advice of the Scientific Committee and the CTC, and the extent to which this CMM, CMM 1.01 (*Trachurus murphyi*, 2013), CMM 2.01 (*Trachurus murphyi*, 2014), CMM 3.01 (*Trachurus murphyi*; 2015), CMM 4.01 (*Trachurus murphyi*, 2016), CMM 01-2017 (*Trachurus murphyi*), CMM 01-2018 (*Trachurus murphyi*), CMM 01-2019 (*Trachurus murphyi*), CMM 01-2020 (*Trachurus murphyi*)~~and~~, CMM 01-2021 (*Trachurus murphyi*) and CMM 01-2022 (*Trachurus murphyi*)—as well as the Interim Measures for pelagic fisheries of 2007, as amended in 2009, 2011 and 2012, have been complied with.

~~32-31.~~ Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2023 to 2032 inclusive.~~Without prejudice to Members and CNCPs without an entitlement in Table 1 and the rights and obligations specified in Article 20(4)(c) and having regard to paragraph 10, the percentages included in Table 2 will be used by the Commission as a basis for the allocation of Member and CNCPs' catch limits from 2018 to 2022 inclusive.~~



Table 1: Tonnages in 2023 fishery as referred to in paragraph 4.

<u>Member / CNCP</u>	<u>Tonnage</u>
<u>Belize</u>	<u>1,100</u>
<u>Chile</u>	<u>716,758</u>
<u>China</u>	<u>63,136</u>
<u>Cook Islands</u>	<u>1,100</u>
<u>Cuba</u>	<u>2,219</u>
<u>Ecuador</u>	<u>12,570</u>
<u>European Union</u>	<u>60,758</u>
<u>Faroe Islands</u>	<u>11,027</u>
<u>Korea</u>	<u>12,753</u>
<u>Panama</u>	<u>1,100</u>
<u>Peru (HS)</u>	<u>20,175</u>
<u>Russian Federation</u>	<u>32,649</u>
<u>Vanuatu</u>	<u>46,487</u>
<u>Total</u>	<u>981,833</u>

Table 2: Percentages³ related to the catches referred to in paragraph 9.

<u>Member / CNCP</u>	<u>%</u>
<u>Belize</u>	<u>0.1019%</u>
<u>Chile</u>	<u>66.3665%</u>
<u>China</u>	<u>5.8459%</u>
<u>Cook Islands</u>	<u>0.1019%</u>
<u>Cuba</u>	<u>0.2055%</u>
<u>Ecuador</u>	<u>1.1639%</u>
<u>European Union</u>	<u>5.6257%</u>
<u>Faroe Islands</u>	<u>1.0211%</u>
<u>Korea</u>	<u>1.1808%</u>
<u>Panama</u>	<u>0.1019%</u>
<u>Peru (HS)</u>	<u>1.8681%</u>
<u>Russian Federation</u>	<u>3.0230%</u>
<u>Vanuatu</u>	<u>4.3044%</u>

³ These percentages shall apply from 2023 to 2032³ inclusive.



11TH ANNUAL MEETING OF THE SPRFMO COMMISSION

Manta, Ecuador, 13 to 17 February 2023

COMM 11 – Report ANNEX 9h Peru's statement on jack mackerel

[English version]

The Republic of Peru considers it appropriate to point out the following:

Peru expresses its strong opposition to the decision adopted by the Commission, which has placed us in the situation of having to vote, together with other delegations, against it. This decision particularly affects Peru, as a State Party to the Convention for the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean (the SPRFMO Convention), which has not given its express consent to submit its jurisdictional waters to the competence of the Commission, a circumstance that has not been duly taken into consideration now and neither on previous occasions.

This measure generates an unfair and inequitable situation that is not based on the criteria of Article 21 of the SPRFMO Convention, instead basically takes into account the transfers of quotas that some members of the Commission have made in previous years, without this constituting a valid criteria for the allocation of quotas or for the change of the percentages of participation in the jack mackerel (*trachurus murphyi*) fishery.

The South Pacific Regional Fisheries Management Organization (SPRFMO) was established for the purpose of ensuring long-term conservation and sustainability in the use of fishery resources on the high seas, including stocks within the Convention Area. Therefore, with regard to jack mackerel stocks, the competence of the Commission to adopt conservation and management measures is limited to the high seas and the jurisdictional waters of those coastal States that have expressly declared their consent to submit them in accordance with Article 20(4)(a)(ii) of the Convention.

Peru is a developing coastal State which has not accepted to submit its jurisdictional waters to the competence of the Commission, but which, in the exercise of its sovereign rights, dictates in relation to the resources existing in such waters measures compatible with those adopted by the Commission. Such measures are also based on the best scientific information available, as well as on research carried out by the Peruvian Sea Institute (Instituto del Mar del Perú) at different times of the year. The results of these investigations are also provided to the Scientific Committee of the SPRFMO, in which Peru participates actively and consistently.

Based on the healthy state of the resource ascertained by the Scientific Committee and based on what was reported at this meeting by its chairman, we agree that an increase of 20% could be adopted as a temporary measure for this year only, to be distributed among all the members. However, we think that the establishment of percentages for such a wide time range as the one proposed for the next 10 years should be based on a previous evaluation by the Scientific Committee and on the analysis, with respect to each one of the participants in the fishery, of all the criteria contemplated in Article 21 of the SPRFMO Convention.

Peru is not able to support an approach that involves or implies a reduction in its participation in the jack mackerel fishery both in the Convention Area and in its jurisdictional waters. This fishery is of fundamental importance for our country in terms of guaranteeing food security for our population, because in Peru 100% of jack mackerel catches are for direct human consumption, and this resource is used to reduce the high rates of malnutrition in our child population. At the same time, it is a fishery that provides economic sustenance for our artisanal fishermen, in a particularly complex economic and social context.



In line with the above, Peru considers appropriate to emphasize that, as a coastal State, it exercises its sovereign rights in relation to the exploration, exploitation, conservation and management of fishery resources in its jurisdictional waters in a responsible and sustainable manner, as well as with due care for the protection of the marine ecosystem as a whole.

All this, as noted above, has been done by Peru in a manner consistent with the objectives of the SPRFMO Convention, and sharing the common interest of ensuring, through appropriate cooperation mechanisms, the compatibility of the conservation and management measures adopted for the Convention Area by the Commission and those established for areas under national jurisdiction by coastal States for straddling fish stocks such as jack mackerel. Therefore, it should be noted that the Commission defines the catch quota on the high seas, and in doing so must respect the exercise of sovereign rights that, based on the best scientific information available, coastal States carry out in their jurisdictional waters.

The fact that Article 4(2) of the SPRFMO Convention states that conservation and management measures adopted for the high seas and those established for areas under national jurisdiction should be compatible does not imply that they have to be identical, or that measures adopted for one area should prevail over the other. Measures may differ in form and scope, as long as they pursue essentially the same long-term conservation and sustainability objectives and can be applied without conflict and without diminishing the positive effects of each other.

In this sense, Peruvian fisheries management measures are based on management approaches and purposes such as those adopted by the SPRFMO, which aim to ensure the long-term sustainability of fishery resources and not to alter the balance of the marine ecosystem. It should be noted that these measures have never been observed or objected by the Scientific Committee with respect to their justification and technical support.

As has been pointed out on this occasion and in previous working sessions of the Organization, Peru contributes significantly to the scientific analysis and to the application of strict measures for conservation.

On the other hand, in relation to what is stated in paragraph 32 of the CMM, Peru would like to reiterate and refer to the content of what has been stated in this regard in its statements in recent years, which are annexed to the reports of the meetings of the Commission.

For the reasons explained above, Peru considers that the decision adopted represents a precedent that does not favor the future distribution of the resource for fishing by the Commission.

At the same time, Peru wishes to emphasize that it is firmly committed to the objectives and the important work of the SPRFMO, which it has been supporting during its 10 years of existence and which, greatly appreciating the framework of cooperation that the organization offers us, we will continue to support with a view to ensuring the sustainable management of the resources within the scope of action of the SPRFMO.

Finally, I would ask you, Mr. Chairman, that this statement be included as an annex to the Final Report of the meeting.

Manta (Ecuador), February 17, 2023.



[English version]

La República del Perú estima oportuno señalar lo siguiente:

El Perú expresa su fuerte oposición a la decisión adoptada por la Comisión, lo que nos ha colocado en la situación de tener que votar, junto con otras delegaciones, en contra de esta. Tal decisión afecta de manera particular al Perú, en su calidad de Estado parte de la Convención para la Conservación y Ordenación de los Recursos Pesqueros de Alta Mar en el Océano Pacífico Sur (la Convención de la OROP-PS) que no ha otorgado su consentimiento expreso para someter sus aguas jurisdiccionales a la competencia de la Comisión, circunstancia que no ha sido tomada debidamente en consideración ahora ni en anteriores oportunidades.

Se genera con esta medida una situación injusta e inequitativa que no está sustentada en los criterios del artículo 21 de la Convención de la OROP-PS, sino básicamente toma en cuenta las transferencias de cuotas que algunos miembros de la Comisión han hecho en los años previos, sin que ello constituya un criterio válido para la asignación de cuotas o para el cambio de los porcentajes de participación en la pesquería del jurel (*trachurus murphyi*).

La Organización Regional de Ordenamiento Pesquero del Pacífico Sur (OROP-PS) fue establecida con el propósito de asegurar la conservación y sostenibilidad de largo plazo en el uso de los recursos pesqueros en alta mar, incluyendo los *stocks* dentro del área de la Convención. Por lo tanto, con relación a los *stocks* del jurel, la competencia de la Comisión para adoptar medidas de conservación y manejo se limita al alta mar y a las aguas jurisdiccionales de aquellos Estados ribereños que han declarado expresamente su consentimiento para someterlas de conformidad con el artículo 20(4)(a)(ii) de la Convención.

El Perú es un Estado ribereño en desarrollo que no ha aceptado someter sus aguas jurisdiccionales a la competencia de la Comisión, pero que, en ejercicio de sus derechos soberanos, dicta en relación con los recursos existentes en tales aguas medidas compatibles con las adoptadas por la Comisión. Tales medidas están además sustentadas en la mejor información científica disponible, a partir de investigaciones que lleva a cabo el Instituto del Mar del Perú en distintos momentos de cada año. Los resultados de esas investigaciones son igualmente proporcionados al Comité Científico de la OROP-PS, donde, por cierto, el Perú participa de manera activa y consistente.

A partir del estado saludable del recurso que ha constatado el Comité Científico y con base en lo informado en esta reunión por su presidente, nosotros estamos de acuerdo en que pudiera adoptarse, como una medida temporal provisional para solamente este año, un incremento del 20% que pudiera repartirse entre todos los miembros. Sin embargo, pensamos que el establecimiento de porcentajes para un rango temporal tan amplio como el propuesto para los próximos 10 años debería estar sustentado en una evaluación previa del Comité Científico y en el análisis, respecto de cada uno de los participantes en la pesquería, de todos los criterios contemplados en el artículo 21 de la Convención de la OROP-PS.

El Perú no está en capacidad de acompañar un planteamiento que involucre o implique una reducción en su participación en la pesquería del jurel tanto en el área de la Convención como en sus aguas jurisdiccionales. Dicha pesquería tiene para nuestro país una importancia fundamental en términos de garantizar la seguridad alimentaria de nuestra población, dado que en el Perú el 100% de las capturas del jurel son para consumo humano directo, y tal recurso se utiliza para rebajar los elevados índices de desnutrición en nuestra población infantil. A su vez, se trata de una pesquería que sirve de sustento económico para nuestros pescadores artesanales, en un contexto económico y social especialmente complejo.



En la línea de lo señalado, el Perú considera oportuno recalcar que, como Estado ribereño, ejerce sus derechos soberanos en relación a la exploración, explotación, conservación y manejo de los recursos pesqueros en sus aguas jurisdiccionales de una manera responsable y sostenible, así como con el debido cuidado para la protección del ecosistema marino en su conjunto.

Todo ello, según se ha apuntado, lo ha venido haciendo en forma consistente con los objetivos de la Convención de la OROP-PS, y compartiendo el interés común de asegurar, a través de mecanismos de cooperación adecuados, la compatibilidad de las medidas de conservación y ordenación adoptadas para el área de la Convención por la Comisión y las establecidas para áreas bajo jurisdicción nacional por los Estados ribereños para las poblaciones de peces transzonales como el jurel. Así, corresponde destacar a partir de lo señalado que la Comisión define la cuota de captura en alta mar, y al hacerlo debe respetar el ejercicio de los derechos soberanos que, con sustento en la mejor información científica disponible, realizan los Estados ribereños en sus aguas jurisdiccionales.

El hecho de que el artículo 4(2) de la Convención de la OROP-PS establezca que las medidas de conservación y ordenación adoptadas para alta mar y las establecidas para áreas bajo jurisdicción nacional deben ser compatibles, no implica que tengan que ser idénticas, o que las medidas adoptadas para un área deban prevalecer sobre la otra. Las medidas pueden diferir en su forma y alcance, siempre que en esencia persigan los mismos objetivos de conservación y sostenibilidad a largo plazo y puedan aplicarse sin conflictos y sin que disminuyan los efectos positivos de las demás.

En ese sentido, las medidas de ordenación pesquera peruana se basan en enfoques y propósitos de gestión como los adoptados por la OROP-PS, que tienen como objetivo garantizar la sostenibilidad a largo plazo de los recursos pesqueros y no alterar el equilibrio del ecosistema marino. Debe destacarse que estas medidas no han sido en ningún momento observadas u objetadas respecto de su justificación y sustento técnico por el Comité Científico.

Como se ha señalado en esta oportunidad y en anteriores sesiones de trabajo de la Organización, el Perú contribuye significativamente al análisis científico y a la aplicación de medidas estrictas para la conservación.

Por otro lado, con relación a lo señalado en el párrafo 32 de la medida, el Perú se permite reiterar y remitir al contenido de lo planteado sobre el particular en sus declaraciones de los últimos años que figuran como anexos en los informes de las reuniones de la Comisión.

En razón a lo expuesto, el Perú considera que la decisión adoptada representa un precedente que no favorece la futura distribución del recurso para la pesca por parte de la Comisión.

Al mismo tiempo, el Perú desea resaltar que está firmemente comprometido con los objetivos y la importante labor de la OROP-PS, que viene apoyando en sus 10 años de existencia y que, ponderando grandemente el marco de cooperación que la organización nos ofrece, seguiremos respaldando con miras a asegurar el manejo sostenible de los recursos comprendidos en el ámbito de actuación de la OROP-PS.

Por último, ruego a usted señor presidente que la presente declaración sea incluida como anexo en el Informe Final de la reunión.

Manta (Ecuador), 17 de febrero de 2023.

**Fourth Meeting of the Commission of the
South Pacific Regional Fisheries Management Organisation**

**Valdivia, Chile
25-29 January 2016**

COMMISSION REPORT

1. OPENING OF MEETING

The Chilean Under-Secretary of Fisheries and Aquaculture, Raúl Súnico, welcomed all to Valdivia and outlined the strong measures taken by Chile to prevent, deter and eliminate IUU fishing (Annex A).

The Commission held a minute of silence to remember the former Interim Executive Secretary, Dr Robin Allen, who passed away in March 2015.

The Commission Chairperson, Gordon Neil, welcomed Members, CNCPs and observers to the Commission meeting and gave a short address on the objectives of the Organisation and this meeting (Annex B).

a) Adoption of Agenda

The agenda was adopted with no changes.

2. MEMBERSHIP

a) Status of the Convention

The Depository (New Zealand) informed the meeting that since the last Commission Meeting two new Contracting Parties had joined SPRFMO. Ecuador became a Member of the Commission on 11 May 2015 and Peru on 21 January 2016. The Commission was also informed that Belize will withdraw with effect from 1 May 2016 and therefore, from May 2016, the Commission will consist of 14 Members.

b) Participation in the taking of decisions by the Commission (Article 15.9)

In accordance with Article 15.9 of the Convention, the Executive Secretary informed the Commission that Belize and Cuba have been in arrears in their the financial contributions for two consecutive years. Cuba however informed the Commission that they have transferred the outstanding amount a few days prior to the Commission meeting.

Based on this information it was decided that all present Members were entitled to participate in decision making.

3. SCIENTIFIC COMMITTEE (SC)

a) Report of the Scientific Committee

The Chairperson of the SC (Dr Jim Ianelli) presented the report and scientific advice of the 3rd SC meeting held in October 2015 in Port Vila, Vanuatu (COMM-04-05).

The advice to the Commission is included under item 10 of the SC report and contains the recommendation that catch limits for 2016 for the entire jack mackerel range in the south-east Pacific should be set at or below 460 000 tonnes. Other areas of advice related to bottom fishing, including a proposal for an exploratory toothfish fishery and, for the first time, squid. Members thanked the SC Chairperson for his hard work and noted the need for improved data collection. The Deep Sea Conservation Coalition made a statement related to bottom fishing (Annex C).

The EU confirmed that they will be hosting the next SC meeting and the preceding assessment workshop in the Netherlands from 7 - 15 October 2016.

b) 2016 Workplan for the Scientific Committee

The SC Chairperson presented the draft 2016 SC Workplan that had been developed in a small working group during the Commission. The Commission adopted the 2016 Workplan (Annex D).

In adopting the 2016 Workplan, the Commission suggested it would be helpful if the SC develop a rolling multi-annual workplan of research priorities and associated funding needs to assist with future planning and budgeting.

4. FINANCE AND ADMINISTRATION COMMITTEE (FAC)

a) Report of the Committee

The FAC Chairperson, David Dolphin, presented the report of the third FAC meeting and recommendations therein. The Commission adopted the report (Annex E).

b) Staff Regulations

The Commission adopted the Staff Regulations recommended by the FAC (Annex F). The Commission agreed that these should take effect from 1 January 2015.

c) Budget

The Commission adopted the budget for the 2016-17 financial year (Annex G).

d) Date and Venue of the next meeting of the Commission

The Commission noted the recommendation for the 2017 Commission meeting and CTC to be held in Australia during January in Adelaide, Australia. The Commission agreed to hold the CTC on 14 to 16 January 2017 and the Commission on 18 to 22 January 2017. The Secretariat requested possible hosts for the 2018 meeting to indicate interest early to assist their planning. No offers were forthcoming at this time.

5. COMPLIANCE AND TECHNICAL COMMITTEE (CTC)

a) Report of the Committee

The Chairperson of the CTC, Osvaldo Urrutia, presented the report of the CTC and recommendations of the CTC Meeting held from 21-23 January 2016. The CTC report was adopted by the Commission (Annex H).

During the presentation of the CTC report, the Commission discussed options for greater alignment of the SC and CTC. The Commission noted that items that have a large scientific component should normally be considered by the SC and technical items, where appropriate, should be informed by the SC. The CTC Chairperson undertook to provide the CTC agenda to the SC Chairperson before the meeting to give the SC Chairperson the opportunity to comment on any relevant item. The Commission agreed to continue to explore the issue of the link between the SC and CTC.

b) Final Compliance Report

The Commission noted the significant amount of time spent developing the Provisional Compliance Report and requested the CTC to focus on streamlining the current compliance evaluation process. Acknowledging the limited time in CTC meetings, the Commission noted that the CTC decided to refer to the follow up actions outlined in Annex 1 of CMM 3.03 and not specify follow up actions for individual instances of non-compliance.

The Commission adopted the Final Compliance Report (Annex I).

c) 2016 IUU List

Consistent with the CTC's recommendation, the Commission decided that neither the DAMANZAIHAO nor the AURORA be removed from the IUU Vessel List and that the vessel, MYS MARII, also be included on the 2016 IUU list. The Commission adopted the 2016 IUU Vessel List (Annex J).

The Commission expressed a willingness to engage constructively with Peru regarding an intersessional request under paragraph 17 of CMM 1.04 following effective action taken by Peru in respect of the DAMANZAIHAO.

The Commission also noted that the Russian Federation had confirmed that the AURORA had changed its name to TAVRIDA and requested that this new name is reflected in the 2016 IUU Vessel List.

d) Status of Cooperating non-Contracting Parties (CNCs)

The Commission noted that applications for CNC status were received from Colombia, Liberia, Panama and the United States of America.

Commission Members reaffirmed the important role CNCs could play in reinforcing the Convention framework and also encouraged the existing CNCs to advance the process of becoming Contracting Parties to the Convention. In this context, Members discussed the applications for renewal of CNC status received from Colombia, Liberia, USA, and Panama.

In considering the information submitted by the four CNCPs in support of their applications for renewal, Commission members reiterated the requirements of Decision 1.02 on the "Rules for Cooperating non-Contracting Parties." Commission Members, in particular, reiterated the importance of CNCPs meeting their commitments under paragraph 12 of Decision 1.02 with respect to compliance with SPRFMO Conservation and Management Measures. This included the specific commitment to accept high seas boardings and inspections of vessels present in the Convention Area in accordance with the Commission's procedures on high seas boarding and inspection, as provided for in CMM 3.04, for the purpose of ensuring compliance with the Convention and the conservation and management measures adopted under the Convention.

Consistent with the understanding outlined above, and notwithstanding the earlier commitment to accept at sea boardings outlined in the US's letter of application for renewal of CNCP status, CNCP applicants for renewal present at the meeting reconfirmed their commitment to meet all the requirements in paragraph 12 of Decision 1.02. On this basis, the Commission approved the applications for renewal of CNCP status from Colombia, Liberia, the USA, and Panama in accordance with Decision 1.02.

The Commission adopted an amendment to Decision 1.02 to require any non-Member seeking CNCP status to include a statement in their request on how any compliance issues previously identified by the Commission have been addressed (Annex K).

The Commission also noted that the CTC had highlighted the importance of adopting SPRFMO specific high seas boarding and inspection procedures as a matter of priority.

e) Proposal for Exploratory Fishing

This item was discussed and adopted under Agenda Item 6.

f) Development of a SPRFMO VMS

The Commission established a Working Group to progress a Call for Proposals for a VMS service provider. The Commission acknowledged the efforts of the VMS Working Group, chaired by the CTC Chairperson, over the 2015 intersessional period. The Commission adopted the report of the Working Group (Annex L) which included a Call for Proposals and a tender evaluation process. The Commission also modified the VMS Working Group's Terms of Reference (Annex M). The Commission encouraged all Members and CNCPs to continue their cooperative efforts to establish a SPRFMO VMS.

g) Recommendation on Vessels without Nationality

This item was discussed and adopted under Agenda Item 6.

h) Technical editing of CMMs

The Commission adopted the CTC recommendation to adopt the process for technical editing CMMs outlined in the CTC report (COMM-04-07, paragraph 12(a)). The Commission also urged the Secretariat to circulate a corrected version of the CMMs as soon as possible, but no later than 20 days after the end of the Commission Meeting, and prioritise those CMMs that are likely to be time critical. The Commission decided that this process should be applied to the previously proposed technical edits to CMMs by the Secretariat (CTC-03-10).

6. CONSERVATION AND MANAGEMENT MEASURES (CMMs)

The Commission noted the need to decide on a consistent approach to referencing of new and amended CMMs to be considered at the next meeting.

a) CMM 3.01 (*Trachurus murphyi*)

Consistent with the SC's recommendation on *Trachurus murphyi* catch limit, the Commission decided to adopt the same allocation in 2016 as applied in 2015.

Peru, Ecuador and Cuba explained their particular circumstances and their expectation to have an increased allocation in future years.

The Commission supported an amendment to CMM 3.01 to clarify arrangements for quota transfers.

The Commission adopted CMM 4.01 (Annex N).

b) CMM 1.04 (IUU list)

The Commission adopted an amendment to CMM 1.04 to require Members and CNCPs to notify the Executive Secretariat of a change of name and/or international radio call sign for vessels on the IUU Vessel List, and the Secretariat to update the list accordingly, after verification (Annex O).

c) CMM 3.02 (Data Standards)

The Commission adopted the revision to CMM3.02 to allow for the voluntary submission of observer data collected during landings (Annex P).

d) New and Exploratory fisheries framework CMM (NEW)

The Commission adopted a CMM on the Management of New and Exploratory Fisheries in the Convention Area (Annex Q).

e) CMM 2.05 (Record of Vessels)

The Commission adopted amendments to CMM 2.05 to replace the review date of 2016 to 'review as required'. In addition it was decided to include the 'date of inclusion into the vessel record' into the record. (Annex R).

f) CMM for Exploratory fishing for toothfish (NEW)

The Commission adopted a CMM for exploratory fishing for toothfish in accordance with the SC endorsement (Annex S).

g) CMM 2.04 (Minimising bycatch of seabirds)

The Commission adopted amendments to CMM 2.04 to clarify the application of mitigation measures (Annex T).

h) CMM 2.07 (Inspections in port)

The proposal for amending the current port inspection measure was withdrawn and the proponent expressed their intention to present a revised proposal at the next Commission meeting.

i) CMM 3.03 (Compliance and Monitoring Scheme)

The Commission adopted technical edits to the implementation report template and agreed that the Secretariat should update the template to incorporate requirements of new CMMs after Commission meetings (Annex U).

j) CMM2.03 (Bottom fishing)

The Commission adopted amendments to CMM 2.03 to require the measure to be reviewed at the 2017 Commission meeting (Annex V).

i) CMM on Vessels without Nationality (NEW)

The Commission adopted a new CMM recognizing that vessels without nationality fishing in the Convention Area are engaged in IUU fishing and encouraging action to be taken against such vessels (Annex W).

7. SPRFMO OBSERVER PROGRAMME

The Commission noted that under Article 28 of the Convention the Commission is required to establish an observer programme within 3 years of the Convention coming in to force. Chile presented draft terms of reference for a joint SC and CTC intersessional observer program working group. It was proposed that the working group develop a proposal for establishing an observer programme for consideration at the 2017 Commission meeting. The United States of America volunteered to Chair the working group and the Commission adopted the terms of reference (Annex X).

8. FUTURE WORK PROGRAMME OF THE COMMISSION

No new matters were raised under this item.

9. ANNUAL REPORT OF THE COMMISSION PURSUANT TO ARTICLE 29 OF THE CONVENTION

The Executive Secretary presented the draft Annual Report for adoption by the Commission. The Commission noted that this report addresses relevant decisions and actions taken by the SPRFMO in 2015 for the purpose of informing the UN and FAO. The Commission agreed to adopt the report.

10. OTHER MATTERS

a) Access to documentation leading to an IUU Listing.

In March 2015, the Chairperson of the Commission wrote to Commission Members seeking their views, noting Article 18.1 of the Convention on transparency, on whether the Commission should consider making some of this information available to the general public, for example, by publishing it on the Organisation's website.

The Commission noted that it was important to ensure an appropriate level of confidentiality to ensure that Members and CNCPs are able to share the information and to avoid potential prejudice to investigations or legal processes. Noting this, the Commission agreed to maintain the current processes for circulating information relating to allegations of IUU activities.

b) Memorandum of Understanding with CCAMLR.

The Commission noted that in October 2015, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) adopted a draft Memorandum of Understanding (MoU) with SPRFMO that intends to facilitate the cooperation between the two Organisations. The Commission adopted MoU and agreed that the SPRFMO Chairperson will sign the MoU on behalf of the Commission.

The Commission requested that the Secretariat assess and advise the Commission on options for MoUs with neighbouring or overlapping RFMOs.

c) IMO numbers in the SPRFMO Record of Vessels

Peru raised a concern regarding the Organization's Record of Vessels registered and/or authorized to fish in the Convention Area and noted that IMO numbers are missing for a large number of vessels in that List. Given the importance of IMO numbers to prevent and combat IUU activities and to establish proper monitoring mechanisms of fishing activities in the Convention area, the Commission reminded all Members and CNCPs of their obligation to provide IMO numbers in accordance with CMM 2.05 (Annex 1 paragraph 2(v)).

11. MEETING REPORT

The Meeting report was adopted on Friday 29 January 2016 at 2:15pm.

12. CLOSE OF MEETING

The Chairperson closed the Meeting on Friday 29 January 2016 at 2:27pm