
11TH MEETING OF THE COMPLIANCE AND TECHNICAL COMMITTEE (CTC)

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CTC 11 – Doc 05

Implementation Report: SPRFMO Fisheries

Secretariat

1. Background

In years past, the Secretariat has prepared an implementation report for the *Trachurus murphyi* fishery (e.g., [CTC9-Doc06_rev1](#)). However, there has been increasing interest in developing implementation reports for other SPRFMO fisheries, such as squid (with respect to CMM 18) with implications for the transshipment CMM (CMM 12). To address the implementation of SPRFMO CMMs with respect to all fisheries in a concise paper, we have expanded this report to extend beyond jack mackerel.

Specifically, this report focuses on fishing activities, data validation, SC advice and requests, and challenges related to implementation of the jack mackerel, squid, bottom fishing, exploratory fisheries, and transshipment CMMs.

2. *Trachurus murphyi*

2.1. Threshold (70%) and date of closure (Paragraph 6)

During 2023, four Members reached 70% of their catch limit. Chile was informed by letter on 26 June (G77-2023), Peru on 20 July (G99-2023), the European Union on 30 October (G149-2023), and the Russian Federation on 21 December (G169-2023).

The European Union formally closed their fishery on 20 December 2023.

2.2. Entitlement transfers (Paragraph 8)

The Secretariat is responsible for notifying Members and CNCPs when each transfer occurs and circulating the approval of the receiving Member. During 2023 there were 13 transfers involving 11 Members, as summarised in Table 2.

2.1. Notification of catches against catch limits (Paragraphs 10 and 12)

By way of letter G83-2023 on 5 July 2023, the Executive Secretary informed Members and CNCPs that catches of *Trachurus murphyi* in the range of its distribution had reached 70% of the amount referred to in paragraph 9 (at that stage 822,713 t had been caught, which was 76.2% of 1,080,000 t).

Paragraph 12 states that when total catches have reached 70% of the amount indicated in paragraph 9, Members and CNCPs agree to implement a 15-day reporting period. Fifteen-day reporting for the jack mackerel fishery was implemented in July 2023.

The Executive Secretary shall inform Members and CNCPs when the amount referred to in paragraph 9 has been reached. As of letter G167-2023, which provided information up to the end of November 2023, the amount referred to in paragraph 9 had not been reached.



Table 1: Transfers (tonnes) of jack mackerel catch entitlement (rounded to nearest whole number)

Member	2023 catch entitlement	Transfers received	Transfers given	Current Limit
Belize	1 100	0	1 100	0
Chile (total)	716 758	145 370	0	862 128
China	63 136	0	60 000	3 136
Cook Islands	1 100	0	0	1 100
Cuba	2 219	0	2 219	0
Ecuador (total)	12 570	0	12 070	500
European Union	60 758	10 384	19 000	52 144
Faroe Islands	11 027	0	11 027	0
Korea	12 753	0	12 753	0
Panama	1 100	0	1 100	0
Peru (high seas)	20 175	0	0	20 175
Russian Federation	33 974	10 000	0	43 974
Vanuatu	46 487	0	46 487	0
Total	983 157	165 756	165 756	983 157

2.2. Monthly and 15-day catch reports (Paragraph 13)

Monthly and 15-day catch reports were circulated by the Secretariat throughout the year in a timely manner.

2.3. Verification of 2022 annual catch reports (Paragraph 15)

Each year, the Executive Secretary shall verify the annual catch reports and inform the Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered. The outcome of this exercise is shown in Table 2.

Table 2: Verification of annual catch (tonnes) from the *Trachurus murphyi* fishery in SPRFMO Area

Member	2022 annual catch	Monthly reports	Fishing activities	Transshipments	Landings
European Union	44 594	44 425	44 425	5 638	38 956
Russian Federation	29 443	27 043	29 443	3 876 ¹	29 443

Referring to Table 2, there is only one discrepancy between the different types of catch data received by the Secretariat for the *Trachurus murphyi* fishery.

The Russian Federation did not submit a monthly catch report for December, and this was likely the reason for the observed discrepancy.

¹ This amount was transhipped to another vessel and then landed (so it appears in landings data also).



2.4. List of vessels having actively fished or engaged in transshipment (Paragraph 18)

The SPRFMO [Record of Vessels](#) details the list of authorised vessels and is available via the Organisation's website. Vessels that have actively fished or engaged in transshipment for *Trachurus murphyi*, by month, in the 2023 calendar year are also shown on the SPRFMO website ([T. murphyi 2023 Fishery](#)). A summary of this information is presented in Table 3. In addition, a report on the vessels active in the Convention Area during 2022 is included in the annual Record of Vessels Implementation report.

Table 3: List of vessels having actively fished or engaged in transshipment (*T. murphyi*) during 2023

Member/CNCP	Vessel	Vessel type
European Union	<i>Alina</i>	Trawler
	<i>Annelies Ilena</i>	Trawler
	<i>Maarte Theadora</i>	Trawler
	<i>Simonas Daukantas</i>	Trawler
Russian Federation	<i>Admiral Shabalin</i>	Trawler
	<i>Komandor</i>	Trawler
	<i>Maironis</i>	Trawler
Panama	<i>Frio Poseidon</i>	Carrier

2.5. Domestic measures (Paragraph 26)

Paragraph 26 of CMM 01 states that 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 catches exceeding [98,168] tonnes, they agree to submit to the Secretariat a report explaining to the Commission how the national measures 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. The catch amount of 98,168 tonnes is the difference between the maximum catch throughout the range (i.e., 1,080,000 t) and the total catch allocation for the high seas and for areas under national jurisdiction, with express consent (i.e., 981,832 t).

Letter G96-2023 (19 July 2023) contained Peru's 2023 report on compatibility of its national jack mackerel measures.

2.6. SC11 advice and specific requests

The 11th meeting of the SPRFMO Scientific Committee was held in Panama City, Panama from 11 to 16 September 2023.



The SC recommended a 15% increase of the jack mackerel TAC, throughout the range of jack mackerel, at or below 1,242 kt. The SC strongly supported Member activities in conducting acoustic and other surveys as they are critical for the stock assessments and potentially in developing simulation-tested management procedures. Concerning jack mackerel MSE, the SC recommended that catch entitlement banking and borrowing be evaluated within the MSE to test the impact on long-term management of this resource, as well as recommending that Members engage with the work of the MSE technical group. The SC agreed that further work needs to be done with the Commission and agreed that a MSE workshop should be held immediately prior to the upcoming Commission meeting. In terms of connectivity research, the SC recommended that the Commission consider funding a research project, proposed by the Connectivity task group. Research on the spatial distribution of jack mackerel in relation to climate change and annual temperature anomalies such as El Niño and La Niña was recommended to continue.

In paragraph 27 of CMM 01-2023 (*Trachurus murphyi*) the Commission requests advice from the SC regarding the possible impact of national measures adopted on the *Trachurus murphyi* fishery. The sum of realised catch of jack mackerel in 2022 was approximately 7% above the catch limit recommended by the SC and preliminary estimates of the catch in 2023 suggest that the catch limit will be exceeded by approximately 5%. The SC9-Report notes that *it is necessary to evaluate the potential structural impacts of national measures on the T. murphyi fishery. This would best be carried out as part of the management strategy evaluation. This requires a precise specification of the type of national measures that should be considered.* SC11 did not update this advice and the MSE work is continuing.

2.7. Objections

On 10 April 2023 the Russian Federation presented an objection in respect of established shares in the catch limit of *Trachurus murphyi* in 2023 specified in the CMM 01-2023. Following this a review panel was established on 17 May 2023 pursuant to Article 17 and Annex II of the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean. The review panel transmitted its findings on 1 July 2023 and full details are available on the SPRFMO website ([PCA Case No. 2023-33](#)).

Amongst its findings and recommendations, the Review Panel recommended “a modification of Russia’s alternative measures that specifies a tonnage limit for Russia for 2023 that is 15% greater than the 29,543 tonnes allocated to Russia in Table 1 of CMM 01-2023, namely a tonnage limit of 33,974 tonnes”. On 27 July 2023, the Russian Federation accepted this decision and their allocation for 2023 was updated accordingly (i.e., to 33,974 tonnes).

3. Squid

3.1. Management for the Jumbo Flying Squid Fishery (Paragraph 3)

Table 1 of CMM 18 sets out the effort limitations for Members fishing for jumbo flying squid in the SPRFMO Convention Area (noting that these limits do not apply to fishing gears other than jigging).

Table 4: Effort limitation in the jumbo flying squid fishery

Member/CNCP	Vessel Limit Number	Total Gross Tonnage
China	671	644 820
Korea	50	45 773
Chinese Taipei	45	45 499
Totals	766	736 092



This is a new limitation and statistics for the 2023 fishery are not yet available. Actual 2023 vessel and GT numbers will be reported in next year's report.

3.2. Historical record (Paragraph 4)

The squid information held by the Secretariat identifies the following Members and CNCPs has having had a historical record in the jumbo flying squid fishery:

Table 5: Members and CNCPs other than developing coastal States (as defined in CMM 18) with an historical record in Jumbo Flying Squid

Member/CNCP	Year	Number of Vessels	Total Gross Tonnage	Catch weight (t)
Russian Federation	1965	3	2 629	12
Russian Federation	1966	3	2 629	7
Russian Federation	1981	1	912	3
Russian Federation	1982	5	4 560	15
Russian Federation	1983	3	2 736	8

The above information was circulated to Members and CNCPs in Letter G82-2023 (5 July 2023).

3.3. Verification of 2022 annual catch reports (Paragraph 10)

Each year, the Executive Secretary shall verify the annual catch reports and inform the Members and CNCPs of the outcome of the verification exercise and any possible discrepancies encountered.

It should be noted that due to the relatively long fishing trips that are typical of vessels targeting squid, landings data can be hard to interpret with respect to annual catch and fishing activity data. For example, a single landing event may comprise squid from fishing activities that occurred over several years. Disaggregating these catches to apportion them to the respective year in which they were harvested may not be possible. In addition, there are challenges associated with collating and analysing transshipment data (discussed further in Section 6.3) which means that currently annual catches are only verified using fishing activity data.

Table 6: 2022 Verification of Annual catch (tonnes)² from the squid fishery in SPRFMO Area

Member	2022 annual catch	Fishing activities
China	508 964	508 982

Referring to Table 6, there is no notable discrepancy between the annual catch data and fishing activity data received by the Secretariat for the Jumbo flying squid fishery.

² Catch records are rounded to the nearest whole number



3.4. List of vessels having actively fished or engaged in transshipment (Paragraph 6)

The SPRFMO [Record of Vessels](#) shows the list of vessels that are authorised and is available via the Organisation's website. On the Member's section of the SPRFMO website, there are summary tables detailing the transshipment notifications received on a weekly basis (as well as the carrier vessels involved with the transshipments), and a summary of the transshipment details reported, following transshipment events. A report on the vessels active in the Convention Area during 2022 is included in the annual Record of Vessels Implementation report.

3.5. SC11 advice and specific requests

In terms of Squid, the SC recommended that the Commission maintain the current fishing effort levels. The SC created a task group to focus on Squid assessment, created terms of reference for the group and recommended that information on the assessment progress be posted to the SC GitHub site to make it more available for other Members. The SC advised that the Commission review observer coverage considering the percentage of vessels sampled and consider the feasibility for the future development of Electronic Monitoring to monitor the squid fishery bycatch in the Convention Area. Members were also advised to continue its efforts to improve methods used to derive abundance indices from Catch per Unit Effort.

4. Bottom fishing

4.1. Notification of catches against catch limits (Paragraphs 17 and 22)

In 2023, neither Australia nor New Zealand achieved the catch thresholds, relating to orange roughy, to trigger a notification from the Secretariat.

On 10 December 2023, the Secretariat received a notification from New Zealand indicating that they intend to carry forward 10% of their allocated orange roughy catch limit (all stocks) into 2024. Following the annual meeting any revised catch limits shall be reflected in the monthly reports.

4.2. Monthly catch reporting

Monthly catch reports were circulated to Members/CNCPs throughout the year in a timely manner.

4.3. Catch validation

There is no explicit provision in the CMM for the Executive Secretary to verify the catch reports, but for consistency and transparency, catch reports from the various bottom fishing data submissions were cross validated to identify any potential inaccuracies.

Table 7: 2022 Verification of annual catch (tonnes) from the bottom fishery in SPRFMO Area

Member	2022 annual catch	Monthly reports	Fishing activities	Landings
Australia	133	148	145	148
New Zealand	54	53	53	48

Referring to Table 7, there is one observed discrepancy. The difference could be related to the annual catch data submission for Australia excluding discard species. The Secretariat intends to follow-up with Australia.



4.1. SC10 advice and specific requests

In terms of Deepwater, the SC accepted the cumulative Bottom Fishing Impact Assessment (BFIA) submitted by Australia and New Zealand in accordance with CMM 03 Bottom Fishing, albeit with a recommendation to update the BFIA in 2024. Regarding Vulnerable Marine Ecosystems (VME), the SC recommended that the Commission modify the Bottom trawl Management Areas to ensure a minimum of 70% protection of suitable habitat for each modelled VME indicator taxa, within each Fisheries Management Area. The SC advised the Commission that orange roughy stock status is very unlikely to be impacted by taking accumulated catches in alternating years.

5. Exploratory fisheries

5.1. Toothfish

In 2022, both New Zealand (CMM 14a-2019) and the European Union (CMM 14e-2021) participated in exploratory toothfish fisheries in the SPRFMO Convention Area. Table 7 compares the reported toothfish catches from the different data submissions. It should be noted that monthly catches are reported on a voluntary basis for the exploratory fisheries.

Table 7: 2022 Verification of annual catch (tonnes) from the exploratory toothfish fisheries in SPRFMO Area

Member	2022 annual catch	Monthly reports	Fishing Activities	Landings
European Union	74.9		74.9	74.9
New Zealand	38.7	39	38.7	37.8

All data submissions were well aligned with each other. Reporting of monthly catch data for exploratory fisheries is voluntary.

5.2. Potting

In 2022, the Cook Islands carried out exploratory potting under CMM 14b-2022. Table 8 compares the reported potting catches from the different data submissions.

Table 8: 2022 Verification of annual catch (tonnes) from the exploratory potting fisheries in SPRFMO Area

Member	2022 annual catch	Monthly reports	Fishing Activities	Landings
Cook Islands	27	37	0.27	48.2

As can be seen from Table 8 there are obviously some discrepancies in the various reported amounts. The Secretariat intends to follow-up with the Cook Islands to better understand the source of the discrepancies.

5.3. SC11 advice and specific requests

Regarding Exploratory Fisheries, during SC11 the Members with current exploratory fisheries presented progress reports (Cook Islands, European Union and New Zealand).



Regarding the Cook Islands' exploratory trap fishery, the SC11 recommended that the preliminary surplus production model for lobster (or any alternative modelling approach) be reviewed. The SC also agreed to the proposed changes for the Cook Islands trap fishing FOP (Fisheries operational plan) and accepted the amendment to allow for longer lines with 200 traps to be used when setting for crabs, that is for sets below 350m.

SC11 accepted the exploratory fishery updates from New Zealand and the European Union.

6. Transshipments

Transshipment activities are primarily associated with the jumbo flying squid fishery (Figure 1); however, each year there are generally a few transshipment events associated with the *Trachurus murphyi* fishery. This section summarises the trends in transshipment activities, for reference, as this information is not reported elsewhere.

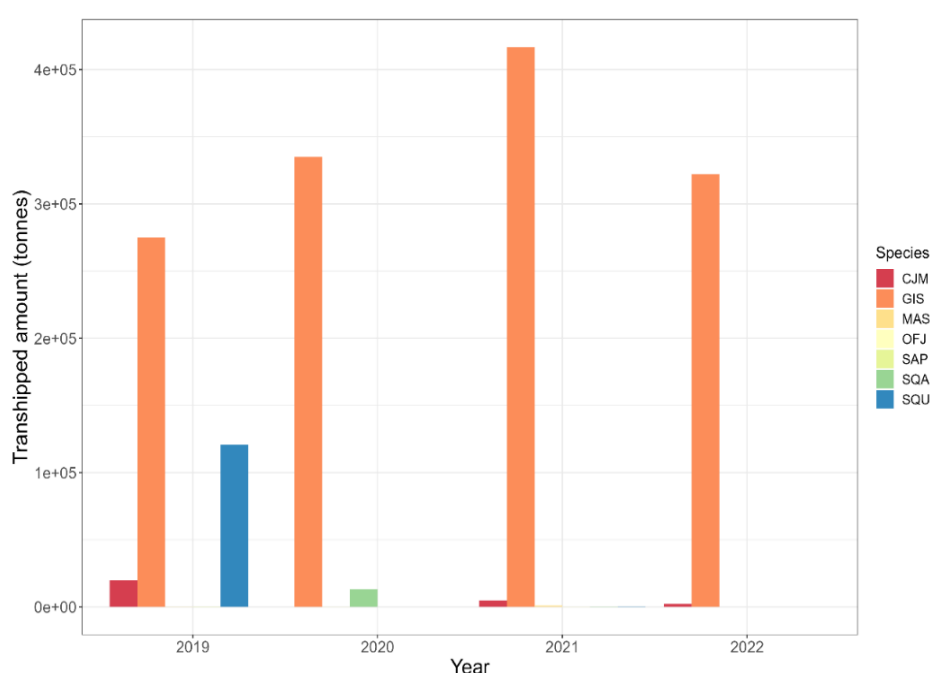


Figure 1. Illustration of the amount of SPRFMO resources transhipped, by species and year (2019-2022). It should be noted that the 2022 data are preliminary as the fourth quarter transshipment details have not yet been received.

In 2021, the Secretariat received 2,996 transshipment notifications and reports for approximately 3,725 transshipment events. In 2022, the number of notifications received increased to 5,263, with 4,993 transshipment events reported through 2022. The data received during 2023 has not yet been analysed.

The differences between the number of transshipment notifications and transshipments reported could be due to several factors. The Secretariat aims to maintain a single file of transshipment notifications, with each individual transshipment identified only once (ideally). However, at times a transshipment can be cancelled or delayed, and it is sometimes difficult to track all these modifications without error. It is also worth noting that often transshipment notifications come from directly from the individual vessels.

In addition, the transshipment details are also reported by the flag-State of both the fishing and receiving vessels. So, in effect, each transshipment event often has a minimum of two transshipment detail records, instead of one (this is in addition to the 2 notifications).

When the Secretariat summarise (or analyse) these data, we attempt to select unique transshipment events; however, this can be challenging when the dates, locations, and catch amounts vary. Therefore, summary values should be interpreted as best approximations.



6.1. Transshipment notifications and details (paragraphs 4 and 9)

The Secretariat is required to make the transshipment notifications and transshipment details received, available on the Member's section of the website. The notifications and transshipment details were updated regularly and in a timely manner and are available on the SPRFMO website.

6.2. Vessels undertaking transshipments

Table 8. Summary of the number of vessels involved with transshipments in the SPRFMO Area during 2022, by Member/CNCP.

	China	Curacao	European Union	Liberia	Panama	Chinese Taipei
Reefer vessels	17	1		2	20	1
Fishing vessels	457		2			1

6.3. Data quality and compliance

The challenges associated with managing and precisely assessing data quality and compliance associated CMM 12-2020 are briefly detailed here.

Transshipments represent a high-volume data stream. It is also generally a 'paired' data stream such that notifications of upcoming transshipments and details of transshipments that have been completed are submitted by both the reefer vessel (and/or flag-state) and the fishing vessel (and/or flag state). To fully assess these data, it is necessary to match the two data submissions for each transshipment event. That is not currently possible as there is no unique transshipment event identifier reported on each submission. The matching of the two, based on shared data elements (e.g., vessel id, date and time, location, and species and amounts transhipped) is not always possible due to precision, time zone issues, and potential reporting errors.

Over the past year, the Secretariat has been developing scripts to verify the quality/accuracy of transshipment data, but also to analyse these data with respect to the compliance. However, until a better system to manage these data is developed, this will remain a challenge and the utility of these data will continue to be hampered.

The Secretariat is also currently unable to manage the transshipment data as well as it would like. The Secretariat is concentrating on the quarterly annual transshipment reports as those present a quantity of data that is able to be received, checked for quality, uploaded and then made available for future analysis.

However, the constant stream of notifications and individual details data is far beyond what the Secretariat is currently able to handle. As such these data are simply being stored without any quality control and are not being uploaded into any sort of long-term database.

Last year, FAC10-Doc06.2 described a long-term plan to improve the monitoring of transshipment activities, by working towards the implementation of a web-based transshipment application, such as the one used by the WCPFC. The Secretariat intends to progress these discussions through the recently re-formed Data and Information Working Group and in conjunction with its new database provider.