

11th MEETING OF THE SCIENTIFIC COMMITTEE

11 to 16 September 2023, Panama City, Panama

SC11 – Doc12 Data Management Update

Secretariat

1. Executive Summary

This paper provides an update on the Secretariat's activities related to data management over the past year, as it relates to the Scientific Committee. The solicitation of a new data services provider to support SPRFMO's central database was a key activity, and great progress has been made to that end. We have secured a new provider and have begun working with them to improve SPRFMO's database, data processing procedures, and to transition the current data holdings.

This paper also provides an update on the intersessional activities associated with the establishment of the SPRFMO Data Working Group (WG), including the terms of reference. We have outlined the data prioritisation highlighted during the first meeting of the Data WG and the progress made to address those issues.

Lastly, the Data Manager position has been advertised, with a total of 14 applications received. The Secretariat staff have scheduled interviews for the top applicants, with the selection process expected to conclude by the end of August. We hope to announce the new Data Manager during SC11.

The SC is invited to:

- Note this paper and the contractual arrangement with the new data services provider, Dragonfly Data Science;
- Continue to support the Data Working Group initiative as it is still in its infancy;
- Consider adoption of the Data Working Group Terms of Reference proposed in this document; and
- Discuss nominations of a Chairperson to facilitate the ongoing work of the Data WG.

2. Data Management Update

2.1 Data Services Provider Transition

One of the key prioritisation needs relative to data management in SPRFMO is the transition to a new data services provider. As detailed at the 10th Finance and Administration Committee (FAC) Meeting in Manta, Ecuador in February of 2023 (<u>FAC10-Doc06.2</u>), the (then current) data services provider (FINNZ) was no longer able to support SPRFMO, thus requiring the search for and transition to a new provider.

On 5 April 2023, a request for proposals (RFP) was posted and widely circulated, with a submission deadline for proposals of 17 May 2023. In total, we received 10 proposals, 4 of which were short-listed as top candidates. The Data Manager coordinated a review panel of consisting of three external experts, two data managers from other RFMOs and one data specialist from NOAA, plus the SPRFMO Data Manager. A review process was developed



based on the criteria outlined in the RFP, and each member of the review panel independently evaluated the shortlisted proposals. The Data Manager collated the member input, and the panel met virtually to discuss the results and make a recommendation. The Executive Secretary and Data Manager then made the final selection based on the advice from the review panel.

<u>Dragonfly Data Science</u>, based in Wellington, New Zealand, was the successful applicant. Dragonfly has extensive experience with fisheries data systems and scientific applications. Their proposal offers a cutting-edge approach to ensure efficiency, transparency, and security of SPRFMO's data assets. In addition, an important aspect of their proposal was capacity building and training for the SPRFMO Data Manager, to ensure the Data Manager has the skills needed to take a leading role in the management of SPRFMO's data and to have the flexibility to adapt to changing needs within the organisation. In the past, the Secretariat has not had the access or ability to take an active role in the management of the central database, which as a result, has hampered our ability to respond in a timely and cost-effective manner to evolving data needs of the organisation. We expect these changes will have lasting benefits to SPRFMO in terms of efficiency, quality, and long-term cost savings.

The Data Manager has been working closely with their team to scope out the transition process and to facilitate as seamless of a transition as possible not only between data services providers, but also to support the new Data Manager, once hired.

2.2 Data Summary Reports

The current database and data load routines have a suite of validation routines, but there are many potential data quality issues that go undetected. The Secretariat has yet to develop comprehensive data audit routines but has identified this as an important area of development. In the interim there has been some progress toward developing data summary reports to provide to Members following data submission. These reports provide simple data summaries and visualisations, in an attempt to highlight potential errors or anomalies in the data that have not been flagged by the validation checks. Thus far, we have developed beta-version reports for quarterly transhipment declarations and fishing activity data.

Although these reports are still under development, they have already proven valuable by identifying errors in the data, that may not have been detected otherwise. We encourage members to review these reports, and to provide feedback on whether this type if information is useful, and if so, if there are additional/different data summaries that you would like to see included.

3. Data Working Group

At SC10, there were discussions around the need for a dedicated working group to address some of the data limitations, guide the development of new data processes (e.g., electronic reporting), and to support the data needs of the Commission and subsidiary bodies. This initiative was included in the 2023 Multi-annual workplan of the SC to "Create terms of reference and prioritization for data needs of Members (SC10 report)".

To address this workplan item, an inception meeting for the prospective Data Working Group was held on 13 April 2023 and was attended by 38 participants.

3.1 Terms of Reference

One of the aims of the meeting was to agree upon the terms of reference (ToRs). There were different views amongst participants regarding the subsidiary body under which this group should be considered, with many suggesting the Scientific Committee and a few suggesting the Compliance and Technical Committee, but there was no unanimous agreement. These views are partially reflected in the draft ToRs (note underlined text):



Draft Terms of Reference (as of 14 May 2023):

- The Data Working Group is established to primarily support the work of the <u>Compliance and Technical</u> <u>Committee</u>, to support other subsidiary bodies as appropriate, and to respond to specific requests from the Commission;
- The Data Working group aims to advise the collection and delivery of data for the analysis carried by the working groups of the SC to improve the quality data to be delivered by consensus.
- The scope of this Data Working Group is to provide guidelines (protocols, templates, units of measurement, etc) for the data work carried out by each WG within the SPRFMO and in coordination with the data manager. The Working Group shall have a <u>Chairperson appointed by the CTC</u>;
- The Working Group shall be made up of Members and invited experts with expected input from members with affinity with data processing;
- All data made available to participants of this group, by the Secretariat, shall be treated as confidential information and used only for purposes described in these Terms of Reference;
- The Working Group will:
 - Advise the Commission and its subsidiary bodies on data collection, submission, and management needs to support the work of the SPRFMO Commission.
 - Assess the appropriateness of data collected by the Commission and its subsidiary bodies to support SPRFMO scientific and management objectives and to improve the quality and usability of SPRFMO data assets.

Specific examples may include:

- Develop and evaluate data standardisation protocols and data submission templates
- Identify reporting needs/desires with a focus towards advancing electronic reporting capabilities
- The WG shall report annually to the CTC and SC (and other subsidiary bodies and/or the Commission as appropriate) on the group's activities over the previous year as well as current data-related challenges and opportunities.

Generally, participants expressed that the WG is best poised to be under the purview of the SC, although perhaps the results from this group could inform the CTC. This group will not be involved with data-related needs of the established WGs, but will work on complementary issues, as tasked by the Commission or subsidiary bodies, or to address data challenges raised by Members and the Secretariat. This detail of the subsidiary body under which this group should reside appears to be a stumbling block to the progress of this WG. This work is expected to align with the work of the SC more closely, however, the location of this WG could be revisited as necessary if the arrangement (i.e., under the purview of the SC) proves problematic/inappropriate in the future.

We encourage the SC to support the establishment of the Data Working Group to primarily support the work of the SC and consider nominations for a Chairperson to guide this work. As such, we propose replacing the underlined text that refers to the "CTC" in the draft ToRs with the "SC".

3.2 Prioritisation of data needs

Maintain up to date code lists

SPRFMO has aligned their data collection protocols with the FAO global standards for fields such as species codes, vessel and gear codes. These efforts to maintain global standardisation facilitate data sharing and exchange across RFMOs, regional fishery bodies, and with national programs, to the extent applicable. After a recent meeting to



the FAO Fisheries Information and Resources Monitoring (FIRMS) Steering Committee and the Coordinated Working Parties (CWP) meeting, it came to light that not all of the current SPRFMO data standards have kept pace with the FIRMS updates. For consistency, it is recommended that the Secretariat keep abreast of these changes, through active participation in the FIRMS Steering Committee, and to advocate for SPRFMO specific needs, should they arise. One issue that has been raised, is a fishing gear (ISSCFG) code specific to squid jigging. The available gear codes require jigging gear be reported as Hooks and Line, and more specifically either Handlines and pole-lines (hand-operated) (09.1.0) or Handlines and pole-lines (mechanised) (09.2.0). At the recent meeting of the CWP meeting in London, other RFMOs raised similar concerns over this gear category, but for different reasons. There is motivation to modify these codes to ensure greater accuracy and transparency of the data. It is suggested that the Secretariat and Members remain engaged in these discussions to ensure that the needs of SPRFMO are reflected in these standards.

Data Standardisation

The Secretariat provided a proposal for one of the first projects for this WG to tackle – standardisation of the SPRFMO database. Data standardisation is important for data consistency, enhanced productivity and accuracy, improved transparency, and cost-savings (largely due to efficiency gains). The SPRFMO database contains many data fields that can, and arguable should, be standardised, but are not currently. The Secretariat prepared a document detailing some of the data fields that are candidates for standardisation, the existing values in the database, and the proposed standardised value. This document was shared on Teams and members were invited to review and comment if the proposed changes did not align with their views. No comments were received. The Secretariat plans to implement the changes that are straightforward as part of the database upgrade and transition to a new data services provider. However, additional investigation into the fields that are not so straightforward, and collaboration with the Members that have provided the data, will be required to fully standardise these data fields.

Annex 1 details some of the affected data fields, the existing values, and the mapping to the proposed standardised values. The data fields proposed to the Data WG was not an exhaustive list of those that could or should be standardised (nor are the tables provided in Annex 1), so this may be part of ongoing work to improve the data collection and management framework in SPRFMO. In addition to standardisation, the next step would be to update data templates and documentation associated with these data submissions (e.g., CMM 02) to facilitate data reporting under these standardised guidelines.

Potential areas of work for the Data WG

- Contribute to the development of improved data submission templates, considering efforts to standardise data collection
- Provide input on a potential user-interface (to be developed by the new data services provider) to upload data submissions, edit data, and extract/summarise data (respecting data confidentiality rules)
- Review utility/appropriateness of current data submissions: e.g., are all required data submissions still relevant, are all desired data fields included, are data fields being consistently reported, etc.
- Provide input on the potential development of a transhipment notifications/declarations system: e.g., how do members manage/process these data currently; what type of system would be most beneficial (e.g., use of APIs, a transhipment app, or a combination); etc.
- Discuss ways to progress regional electronic reporting initiatives within SPRFMO
- Develop data quality criteria for monitoring observer data, relative to the (re)accreditation framework



• Capacity building workshops for data preparation, processing, and submissions (e.g., use of R)

Annex 1

A1. Port Names

Value in Database		Proposed Values	
Port Name	Port State	Port Name	Port State
Puerto Deseado (Argentina)	ARG	PUERTO DESEADO	ARG
Punta Quilla (Argentina)	ARG	PUNTA QUILLA	ARG
BRISBANE	AUS	BRISBANE	AUS
BRISBANE RIVER	AUS	BRISBANE	AUS
COFFS HARBOUR	AUS	COFFS HARBOUR	AUS
DEVONPORT	AUS	DEVONPORT	AUS
Devonport	AUS	DEVONPORT	AUS
DEVONPORT	AUS	DEVONPORT	AUS
EAGLE BAY	AUS	EAGLE BAY	AUS
EDEN	AUS	EDEN	AUS
Eden	AUS	EDEN	AUS
Hobart	AUS	HOBART	AUS
MOOLOOLABA	AUS	MOOLOOLABA	AUS
PORT JACKSON	AUS	PORT JACKSON	AUS
SYDNEY	AUS	SYDNEY	AUS
Sydney	AUS	SYDNEY	AUS
YAMBA	AUS	YAMBA	AUS
Proserpine	AUS		AUS
NELSON	AUS		AUS
NELSON	AUS		AUS
Rio de Janeiro, Brasil	BRA	RIO DE JANIERO	BRA
Rio de Janeiro; Brazil	BRA	RIO DE JANIERO	BRA
ARICA	CHL	ARICA	CHL
CALBUCO	CHL	CALBUCO	CHL
Concepción, Chile	CHL	CONCEPCION	CHL
Coquimbo	CHL	COQUIMBO	CHL
COQUIMBO	CHL	COQUIMBO	CHL
CORONEL	CHL	CORONEL	CHL
CORRAL	CHL	CORRAL	CHL
lquiqe	CHL	IQUIQUE	CHL
lquique	CHL	IQUIQUE	CHL
Iquique (Chile)	CHL	IQUIQUE	CHL
Puerto Iquique	CHL	IQUIQUE	CHL
CLIQQ - Iquique	CHL	IQUIQUE	CHL



Value in Database		Proposed Values	
Port Name	Port State	Port Name	Port State
IQUIQUE	CHL	IQUIQUE	CHL
LOTA	CHL	LOTA	CHL
MEJILLONES	CHL	MEJILLONES	CHL
CHILE - Punta arenas	CHL	PUNTA ARENAS	CHL
Punta areas, Chile	CHL	PUNTA ARENAS	CHL
Punta Arenas	CHL	PUNTA ARENAS	CHL
Punta Arenas (Chile)	CHL	PUNTA ARENAS	CHL
Punta Arenas, Chile	CHL	PUNTA ARENAS	CHL
Punte Arenas	CHL	PUNTA ARENAS	CHL
CLSVE - San Vicente	CHL	SAN VICENTE	CHL
San Vicente	CHL	SAN VICENTE	CHL
San Vicente (Chile)	CHL	SAN VICENTE	CHL
San Vicente	CHL	SAN VICENTE	CHL
San Vicente(Chile)	CHL	SAN VICENTE	CHL
SAN VINCENTE	CHL	SAN VICENTE	CHL
San-Vicente	CHL	SAN VICENTE	CHL
Talcahuano	CHL	TALCAHUANO	CHL
TALCAHUANO-EMPORCHI	CHL	TALCAHUANO	CHL
CHILE- Talcahuano	CHL	TALCAHUANO	CHL
Talcahuano	CHL	TALCAHUANO	CHL
Talcahuano (Concepcion, Chile)	CHL	TALCAHUANO	CHL
Talcahuano , Chile	CHL	TALCAHUANO	CHL
Talcahuano Chile	CHL	TALCAHUANO	CHL
Talcahuano, Chile	CHL	TALCAHUANO	CHL
Talcahunano	CHL	TALCAHUANO	CHL
Talcahunao	CHL	TALCAHUANO	CHL
Talcahunao	CHL	TALCAHUANO	CHL
Talcauno, Chile	CHL	TALCAHUANO	CHL
Talchuano Chile	CHL	TALCAHUANO	CHL
TALCAHUAHO	CHL	TALCAHUANO	CHL
TALCAHUANO	CHL	TALCAHUANO	CHL
TOCOPILLA	CHL	TOCOPILLA	CHL
Valparaiso	CHL	VALPARAISO	CHL
Valparaiso , Chile	CHL	VALPARAISO	CHL
Valparaiso, Chile	CHL	VALPARAISO	CHL
VALPARAISO	CHL	VALPARAISO	CHL
SVTI	CHL		CHL
CLTAL	CHL		CHL
DALIAN	CHN	DALIAN	CHN



Value in Database		Proposed Values	
Port Name	Port State	Port Name	Port State
FUZHOU	CHN	FUZHOU	CHN
FUZHOU-MAWEI	CHN	FUZHOU	CHN
NINGBO	CHN	NINGBO	CHN
QINDAO, CHINA	CHN	QINDAO	CHN
RONGCHENG	CHN	RONGCHENG	CHN
SHANGHAI	CHN	SHANGHAI	CHN
Shanghai	CHN	SHANGHAI	CHN
SHIDAO	CHN	SHIDAO	CHN
YANTAI,CHINA	CHN	YANTAI	CHN
YUHUANG	CHN	YUHUANG	CHN
ZHOUSAN PORT	CHN	ZHOUSHAN	CHN
ZHOUSAN,CHINA	CHN	ZHOUSHAN	CHN
ZHOUSHAN	CHN	ZHOUSHAN	CHN
ZHOU SHAN	CHN	ZHOUSHAN	CHN
Zhoushan	CHN	ZHOUSHAN	CHN
Guayaquil, Ecuador	ECU	GUAYAQUIL	ECU
Manta, Ecuador	ECU	MANTA	ECU
Puerto Bolivar; Ecuador	ECU	PUERTO BOLIVAR	ECU
Las Palmas	ESP	LAS PALMAS	ESP
Suva	FJI	SUVA	FJI
STANLEY, MALVINAS	FLK	STANLEY	FLK
Berkeley Sound, FK	FLK	STANLEY	FLK
Falkland	FLK	STANLEY	FLK
Port Stanley	FLK	STANLEY	FLK
Stanley	FLK	STANLEY	FLK
Stanley, Falkland	FLK	STANLEY	FLK
Stanley, Falkland Islands	FLK	STANLEY	FLK
Port Stanley	GBR	STANLEY	FLK
Tokyo	JPN	ТОКҮО	JPN
BUSAN	KOR	BUSAN	KOR
Busan	KOR	BUSAN	KOR
Pusan	KOR	BUSAN	KOR
BUSAN, KOREA	KOR	BUSAN	KOR
Gamcheon	KOR	GAMCHEON	KOR
Dakhla (Morocco)	MAR	DAKHLA	MAR
Dakhla	MAR	DAKHLA	MAR
Nouadhibou (Mauritania)	MRT	NOUADHIBOU	MRT
Ijmuiden	NLD	IJMUIDEN	NLD
IJmuiden	NLD	IJMUIDEN	NLD



Value in Database		Proposed Values	
Port Name	Port State	Port Name	Port State
IJMUIDEN/VELSEN	NLD	IJMUIDEN	NLD
IJMUIDEN	NLD	IJMUIDEN	NLD
NEW ZEALAND	NZL		NZL
Auckland	NZL	AUCKLAND	NZL
AUCKLAND	NZL	AUCKLAND	NZL
AUKCLAND	NZL	AUCKLAND	NZL
Greymouth	NZL	GREYMOUTH	NZL
Mangonui	NZL	MANGONUI	NZL
MONGONUI	NZL	MANGONUI	NZL
MONGONUI/RUSSELL	NZL	MANGONUI	NZL
Napier	NZL	NAPIER	NZL
NAPIER	NZL	NAPIER	NZL
Nelson	NZL	NELSON	NZL
NELSON	NZL	NELSON	NZL
Port Nelson	NZL	NELSON	NZL
PORT NELSON	NZL	NELSON	NZL
TALLEYS	NZL	NELSON	NZL
TALLYS WARF NELSON	NZL	NELSON	NZL
New Plymouth	NZL	NEW PLYMOUTH	NZL
NEW PLYMOUTH	NZL	NEW PLYMOUTH	NZL
Onehunga	NZL	ONEHUNGA	NZL
ONEHUNGA	NZL	ONEHUNGA	NZL
Opononi	NZL	OPONONI	NZL
Opua	NZL	OPUA	NZL
OPUA	NZL	OPUA	NZL
Pahia	NZL	ΡΑΗΙΑ	NZL
Russell	NZL	RUSSELL	NZL
Tauranga	NZL	TAURANGA	NZL
Timaru	NZL	TIMARU	NZL
Timaru New Zealand	NZL	TIMARU	NZL
Wellington	NZL	WELLINGTON	NZL
WELLINGTON	NZL	WELLINGTON	NZL
PORT WELLINGTON	NZL	WELLINGTON	NZL
WESTPORT	NZL	WESTPORT	NZL
Westport	NZL	WESTPORT	NZL
Whangarei	NZL	WHANGAREI	NZL
Unknown	NZL		NZL
Panama	PAN		PAN
Balboa	PAN	BALBOA	PAN



Value in Database		Proposed Values	
Port Name	Port State	Port Name	Port State
Balboa (Panama)	PAN	BALBOA	PAN
Cristobal	PAN	CRISTOBAL	PAN
PANAMA CITY	PAN	PANAMA CITY	PAN
PERU	PER		PER
Callao	PER	CALLAO	PER
Callao	PER	CALLAO	PER
Callao Port, Lima, Peru	PER	CALLAO	PER
Callao	PER	CALLAO	PER
Callao, Peru	PER	CALLAO	PER
PERU - Callao	PER	CALLAO	PER
CALLAO	PER	CALLAO	PER
Callao Port	PER	CALLAO	PER
CChimbote	PER	СНІМВОТЕ	PER
Chimbote	PER	СНІМВОТЕ	PER
СНІМВОТЕ	PER	СНІМВОТЕ	PER
llo	PER	ILO	PER
Lima	PER	LIMA	PER
LIMA, PEROU	PER	LIMA	PER
lima, Peru	PER	LIMA	PER
Pisco	PER	PISCO	PER
PAPEETE TAHITI	PYF	PAPEETE	PYF
Kaohsiung	TWN	KAOHSIUNG	TWN
Kaohsiung Port	TWN	KAOHSIUNG	TWN
Keelung	TWN	KEELUNG	TWN
MONTEVIDEO	URY	MONTEVIDEO	URY
Montevideo	URY	MONTEVIDEO	URY
Kingstown	VCT	KINGSTOWN	VCT
Cape Town	ZAF	CAPE TOWN	ZAF
Cape Town (SA)	ZAF	CAPE TOWN	ZAF
Capetown, South africa	ZAF	CAPE TOWN	ZAF
08°54.0'N, 790°30.0'W		AT SEA	
34°41'617''S ,073°06'082''W		AT SEA	
at sea on board ms "Pearl Stream	" going to Callao	AT SEA	
AT THE SEA		AT SEA	
Fishinggrounds south Pacific		AT SEA	
from Ship(INSUNGHO)		AT SEA	
from Ship(Seafrost)		AT SEA	
High Seas- Pacific Ocean		AT SEA	
On the sea		AT SEA	



Value in Database		Proposed Values	
Port Name	Port State	Port Name	Port State
Open Sea		AT SEA	
Open sea.		AT SEA	
Pacific fishing grounds		AT SEA	
Pacific fishinggrounds		AT SEA	
to Ship(KWANGJAHO)		AT SEA	
END OF YEAR	NZL		
NA - Observer Landing			
NA – Observer Landing			
NA -Observer Landing			
NA- Observer landing			
NA-Observer Landing			
PTO. NO IDENTIFICADO			
Shetland is.			

A2. Length measurement Types

Values in Database	Proposed values	Description
Fork Length	FL	Fork length
FL	FL	Fork length
Standard length	SL	Standard length
uncoded measure method for species	SD	Tip of snout to posterior end of dorsal fin
Fork length	FL	Fork length
Total length	TL	Total length
TL	TL	Total length
SL	SL	Standard length
ML	ML	Mantle length
LCF	FL	Fork length
тот	TL	Total length
STL	SL	Standard length
CW	CW	Carapace width
CL	CL	Carapace length
Tip of snout to posterior end of dorsal fin	SD	Tip of snout to posterior end of dorsal fin
Mantle	ML	Mantle length
4		
Mantle Length	ML	Mantle length



A3. Life history stage

There is a separate field for the sex of the animal. This field refers to life stage, and therefore, we are proposing 3 possible values to include Unknown, Juvenile, and Adult. Below is a proposed mapping to the existing data in the database.

Values in Database	Proposed values
NA	
juvenile	Juvenile
Unknown	Unknown
Female	Unknown
Male	Unknown
male	Unknown

A4. Species Sex

Similar to the life stage field being used for sex of the organisms, the sex field has been used for maturation stage as well a to indicate sex. The values are proposed below, however, additional investigation into the affected data will be conducted to determine whether the appropriate data can be recovered.

Values in Database	Proposed values
Μ	Μ
F	F
NA	U
U	U
f	F
m	Μ
Female	F
Male	Μ
I	U
1	U
Unsexed	U
0	U
4	U
3	U
5	U
2	U
E	U
Unknown	U
Y	U
MaleFemale	U
NULL	U
Immature	U
	U
male	Μ



A5. Species stock

Species stock as generally been used for orange roughy stocks. In addition to stock, there is a data field that pertains to the area fished, and therefore, that information does not need to be reported here as well.

Values in Database	Proposed values
NA	
CMM01	
EEZ-PER	
Louisville	Louisville Ridge
Louisville Ridge	Louisville Ridge
STR in SPRFMO	
Tasman Sea	Tasman Sea
Westpac Bank	Westpac Bank
TOP	
Lord Howe Rise	Lord Howe Rise
Northwest Challenger	Northwest Challenger
West Norfolk Ridge	West Norfolk Ridge

A6. Area

Area is used to distinguish between the high seas (using the FAO statistical areas) and the areas of national jurisdiction (referred here generally as EEZ but recognizing that the term EEZ does not apply universally).

Values in Database	Proposed values
HS-SPRFMO-FAO81	FAO81
HS-SPRFMO	
FAO81(HS)	FAO81
HS-SPRFMO-FAO87	FAO87
HS-SPRFMO-FAO71	FAO71
FAO81	FAO81
EEZ-NZL	EEZ-NZL
FAO87	FAO87
EEZ-AUS	EEZ-AUS
EEZ-CHL	EEZ-CHL
EEZ-ECU	EEZ-ECU
EEZ-PER	EEZ-PER
EEZ-USA	EEZ-USA
EEZ-Other	
FA071	FAO71
Louisville Ridge	FAO81
STR in SPRFMO	FAO81
Tasman Sea	FAO81



Westpac Bank	FAO81
FAO77	FAO77
HS-SPRFMO-FAO57	FAO57

A7. Interaction type

Values in Database	Proposed values
NA	
Caught in net	Caught in net
caught in net	Caught in net
Landed on deck	Deck strike
Deck strike	Deck strike
Wrapped in jigger lines	Wrapped in jigger lines
Unknown	Unknown

A8. Product description

Product descriptions are reported in port inspections as well as for transhipment reports. This data field still requires additional work by the Secretariat to dig into the data and see if proposals can be made for a product description category based on the data provided. For many records, the product is simply reported as the species (which would have also been reported in a separate data field). This list is just for reference at this point, as additional work will be ongoing to propose appropriate categories to cover the fishing activities observed in SPRFMO.

Values in Database	Proposed values
Whole block frozen	Whole frozen block
Frozen	Whole frozen block
NA	
Whole frozen	Whole frozen block
Whole	Whole frozen block
Frozen blocks	Whole frozen block
Entero Congelado Block	Whole frozen block
Frozen GIS in Bag	Frozen bags
Frozen GIS in Net Bag	Frozen bags
Frozen GIS in BAG (20.5 KG/BAG)	Frozen bags
Frozen Block	Whole frozen block
Frozen Squid in Bag	Frozen bags
FR/WR	
FROZEN IN NET BAGS	Frozen bags
Fish meal	Fish meal
MEAL	Fish meal
Heads/Tails	Heads/tails
Crab clusters	Crab clusters



	T
Values in Database	Proposed values
FRO WHL	Whole frozen block
WHL frozen	Whole frozen block
ROUND	
WHOLE ROUND	Fresh whole
live and filleted	Fresh fillet
1. live and filleted	Fresh fillet
2. whol fish	Fresh whole
ROUND FISH	
CHILEAN JACK MACKEREL	
CHUB MACKEREL	
Horse Mackerel	
Mackerel	
TEN	
ТИВ	
ОТН	
GUT	
WHO	
GIS, FROZEN FISH	
whole, frozen fish	Whole frozen block
whole,frozen fish	Whole frozen block
whole, frozen	Whole frozen block
fish	
RD	
whole, frozen squid	Whole frozen block
WHOLE FROZEN FISH	Whole frozen block
SQUID,TRASH FISH	
frozen squid	
SQUID	
whole/fillet/frozen fish	
Southeast Pacific Frozen Squid	

A9. Maturity stage

Maturity stage is another data field that will require some dedicated work by the Secretariat in collaboration with the Members, as different Members have different maturity coding schemes. In order for these data to be useful to the work of SPRFMO, a universal SPRFMO coding framework needs to be adopted. This could simply involve Members mapping their codes to the analogous SPRFMO codes before submitting their data. If agreed, this could be a step that is eventually built into the data processing of data submissions. The proposed scheme would be numeric from 1-6, spanning from immature, developing, ripe, running ripe, spent, and resting, with 9 reserved for unknown maturation stages. This is simply a proposal that will hopefully be taken up by Members through the Data Working Group.



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7 0 - V IV III I ? 1 23 null 6 null 64 62 U 20 M NULL 30 NA Rest/Develop Spent Gravid/Ripe
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20 M NULL 30 NA Rest/Develop Spent Gravid/Ripe
M NULL 30 NA Rest/Develop Spent Gravid/Ripe
NULL 30 NA Rest/Develop Spent Gravid/Ripe
30 NA Rest/Develop Spent Gravid/Ripe
NA Rest/Develop Spent Gravid/Ripe
Rest/Develop Spent Gravid/Ripe
Spent Gravid/Ripe
Spent Gravid/Ripe
Immature
1=Inact/virg
2=Developing
3= Ripe
4: Ripe
3: Mature
2: Maturing
5: Running Ripe



Values in Database
1: Imm/Rest
3 Ripening
4 Running
2 Maturing
5 Spent
1 Immature
1 Immature/Rest
3 Mature
6 Spent
4 Ripe
5 Running Ripe
3-Mature
2-Maturing
4-Advanced mat
5-Spawning
1-Virgin
4-Ripe
1-Imm/Rest
5-Running Ripe
6-Spent
8-Indeterminate
1 - Immature
2 - Maturing
3 - Mature
4 - Spawning
5 - Spent
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maturing
ripe
rest/develop
developed