

Third International Meeting on the Establishment of the proposed South Pacific Regional Fisheries Management Organisation

**Reñaca, Chile
30 April – 4 May 2007**

REPORT

1. The Third International Meeting to discuss the establishment of a South Pacific Regional Fisheries Management Organisation was held in Reñaca, Chile, 30 April to 4 May 2007. It was chaired by the independent Chair, elected at the First International Meeting, Bill Mansfield.
2. The Meeting adopted Annex A as its agenda.
3. The Chair reported that, as requested by the Second International Meeting, he had revised the draft Agreement (SP/02/WP01) discussed at that Meeting, taking into account the comments participants had made on the text, and had circulated the revised draft text (SP/03/WP1) to participants.
4. The Meeting held discussions on many of the provisions of the revised draft text. A range of views were expressed including general and specific proposals for changes to it. Some participants provided written proposals which, if they request the interim secretariat, will be made available on the website. The Meeting requested the Chair to circulate a revision of the draft text of an Agreement taking into account the comments participants had made on SP/03/WP1 during the Meeting. The Meeting requested that the revision of the draft text of an Agreement be made available well in advance of the next Meeting.
5. Dean Swanson, Chair of the Data and Information Working Group (D&IWG), presented the report of the Group (Annex B). Members of the Group had worked through an email network during the intersessional period on the approved work plan and were able, at a meeting held during April 23-25, 2007, in Reñaca, Chile, to agree by consensus on "Proposed SPRFMO Standards for the Collection, Reporting, Verification and Exchange of Data, April 25, 2007". This document was adopted by the Meeting (Annex C). The D&IWG also recommended an immediate and longer-term work plan, as contained in its report, and that Kelly Denit (USA) be appointed Chair of the Group. Both recommendations were approved by the Meeting. The submission of catch and effort data as specified in Annex C is required by 30 September 2007.

6. Neville Smith, the Chair of the Science Working Group (SWG), presented the report of the SWG (Annex D). Mr Smith noted that the SWG had completed most of the tasks assigned to it by the Second International Meeting and had made substantial progress on remaining tasks during the intersessional period. At the SWG meeting held during April 25-27, 2007, in Reñaca, Chile, considerable progress was made in describing the fisheries of the proposed convention area and documenting their status. Proposals were developed to address key research and assessment requirements for the main fishery for jack mackerel, and future science data requirements were identified.

7. The most important scientific issue identified at the SWG meeting was the requirement for stock structure hypotheses for south Pacific stocks upon which to base assessments, particularly for jack mackerel. With respect to jack mackerel, two important actions were recommended by the SWG and approved by the Meeting:

- A *Jack Mackerel Stock Structure Task Team* to be established under Dr Serra (Chile) and Dr Glubokov (Russian Federation) to prepare a comprehensive proposal for a multi-lateral, multi-disciplinary research programme proposal; and
- A *Jack Mackerel Stock Structure and Assessment Workshop* to be held to develop working hypotheses on jack mackerel stock structure and identify assessment requirements and inputs under such hypotheses.

8. Chile offered to host the workshop and an initial workshop proposal and outline was developed by SWG participants during the Meeting.

9. The SWG also recommended an intersessional work programme, as contained in its report, and that Andrew Penney (New Zealand) be appointed Chair of the SWG. Both recommendations were approved by the Meeting.

10. A preliminary template for submission of historic catch and effort data was prepared at a joint meeting of the D&IWG and subsequently adopted by the Meeting (Annex E). The submission of historic catch and effort data as specified in the template is required by 30 September 2007.

11. The Meeting agreed to the interim measures in Annex F. The Russian Federation noted that it accepted these interim measures except paragraphs 1 and 2 of the bottom fisheries section.

12. The Meeting noted that the Fourth International Meeting to discuss the establishment of the proposed South Pacific Regional Fisheries Management Organisation would be held in Noumea, New Caledonia in September 2007.

13. The Meeting accepted the offer of New Zealand to host an interim secretariat on the basis set out in Annex G.

14. The Meeting thanked the Government of Chile for hosting the Meeting.
15. The Meeting closed at 13:25 on 4 May 2007.
16. The Meeting was attended by those representatives who appear in the List of Participants (Annex H).

**THIRD INTERNATIONAL MEETING ON THE ESTABLISHMENT OF A SOUTH
PACIFIC REGIONAL FISHERIES MANAGEMENT ORGANISATION**

Reñaca, Chile, 30 April – 4 May 2007

PROVISIONAL AGENDA

1. Opening of the Meeting.
2. Adoption of the Agenda and meeting arrangements.¹
3. Report on actions requested by the Second International Meeting²
 - a. Introduction by the Chair of the revised draft text of the agreement he was requested to prepare.
 - b. Report from the Data and Information Working Group on its intersessional deliberations.
 - c. Report from the Science Working Group on its intersessional deliberations.

¹ Note from the Chair regarding the work schedule for the meeting

In order to ensure there is appropriate time available for discussion of both the draft text of the agreement and interim measures the Chair suggests that on the mornings of Monday, Tuesday and Wednesday (30 April, 1 and 2 May) the meeting discusses the draft agreement (SP/03/WP1) and on the afternoons of those days the meeting discusses interim measures. The work schedule for Thursday and Friday could be decided in the light of progress.

The Chair further suggests that the Data and Information Working Group and the Science Working Group report to the meeting on their intersessional deliberations at the commencement of the afternoon session on Monday 30 April.

If accepted by the meeting these suggestions should be regarded only as an initial guide for delegations and to be subject to any further decisions the meeting may wish to make at any time including arrangements for such meetings of the Data and Information Working Group and the Science Working Group as may be appropriate.

² Note from the Chair regarding opening statements

The agenda, like that for the second meeting in Hobart does not provide for formal opening statements. As at Hobart however, the Chair will allow any delegation that needs to make a brief opening statement to do so after agenda item 2. The usual arrangements will be made for the full text of any opening statements to be made available to delegations.

4. Draft South Pacific Regional Fisheries Management Agreement. (SP/03/WP1).
5. Interim Measures.
6. Report from the Data and Information Working Group.
7. Report from the Science Working Group.
8. Interim Secretariat arrangements.
9. Other matters.
10. Adoption of the Report.
11. Closing of the Meeting.

**Third International Meeting on the Establishment of the Proposed South Pacific
Regional Fisheries Management Organization**

**Report of the Data and Information Working Group
Reñaca, Chile
April 23-25, 2007**

1. Opening of the Meeting

The meeting was opened by the Chair, Dr. Dean Swanson (United States).

2. Administrative matters

The Chair and a member of the meeting Secretariat provided logistic and administrative information to the participants. The Agenda was adopted without change and is attached as Annex 1. A list of participants is attached as Annex 2.

3. Election of Rapporteur

Ms. Kelly Denit (United States) was elected rapporteur for the meeting.

4. Intersessional Work Items

The Chair began by thanking the participants for their efforts during the intersessional period with regards to the tasks of the Data & Information Working Group (DIWG).

The DIWG used the text that was developed intersessionally, “Draft SPRFMO standards for the collection, reporting, verification and exchange of data” as a basis for discussion. The entire document was reviewed on a section by section basis. There was extensive discussion by the participants on the issue of data confidentiality, particularly at what level of aggregation data could be made public and the process for providing non-public data to participants. A small drafting group was convened to develop text related to data confidentiality.

There were also requests for further clarification on some of the items referenced in the document (e.g., ISO17799), which were addressed by providing the websites where those items could be located.

The DIWG had detailed discussions regarding the standards for data collection for trawling, purse seining and bottom longlining and the standards for vessel authorization. Modifications were made to the document based on the discussion and input from the participants. The DIWG acknowledged that additional data fields may be required in the future (e.g., mitigation measures in place, mesh size, bait type, hook size & type, etc.) for the different fisheries, but stressed that for interim purposes, the data fields presented in the Annexes are the most important. It was also noted that time for developing mechanisms to collect some of the data fields may be necessary, but all the participants agreed that the objective was to be collecting all the data fields in the future.

Regarding historical catch, the DIWG noted the benefits to future stock assessments of having catch information differentiated between areas of national jurisdiction and on the high seas. It was noted that the data related to catch within areas of national jurisdiction could be provided on a voluntary basis.

Participants also discussed data verification, specifically the importance of scientific observer programs and data exchange aspects of the draft document and were able to reach consensus on these items.

Overall, the DIWG reached consensus on draft text to be submitted to the Plenary session for its consideration and adoption. The final text is provided under separate cover, titled “SPRFMO standards for the collection, reporting, verification and exchange of data, [April 25, 2007]”.

5. Other work items and development of a new work plan

There was concern expressed regarding discussions of other work items because those items had not been specified in advance of this meeting and therefore delegations were not prepared to discuss them.

The DIWG did agree on a work plan in order to continue to make progress on various topics prior to the next meeting of the Plenary session. The areas of priority identified for the upcoming intersessional period include:

- a) Develop draft standards for operational-level catch and effort data for traps and squid jigging
- b) Develop draft data standards for a vessel monitoring system (VMS) and scientific observer programs

Other issues that need to be addressed in the long-term include data standards for other fishing methods, standards for landing and transshipment data, and market-related data and other items as needed.

The participants agreed to continue to work via email intersessionally on the above issues and noted that another meeting of the DIWG in advance of the next Plenary session would be beneficial.

6. Other Business

The DIWG recognized the need to collaborate with the Science Working Group and therefore agreed to hold a joint session with that Group to discuss certain issues further.

The Chair of the DIWG noted his intention to step down from his position following this meeting. There was agreement that the United States continue in the Chair position, and Ms. Kelly Denit was recommended to serve as the Chair of the next meeting of the DIWG.

The participants thanked Dr. Swanson for his efforts during the current meeting in addition to the work done intersessionally in preparation for this meeting. New Zealand's contributions to the drafting of the proposed text were also acknowledged.

7. Adoption of Report

The report was adopted by consensus.

**Data and Information Working Group
April 23-25, 2007
Renaca, Chile**

AGENDA

1. Opening of the meeting
2. Administrative matters
3. Election of rapporteur
4. Intersessional work items
 - A. Agree on standards for data security and terms and conditions for access to data
 - B. Agree on an [interim] list of data types that will be collected by the SPRFMO
 - C. Agree on standards for compiling and managing catch history and effort history data
 - D. Agree on standards for operational-level catch and effort data for trawling, purse-seining, and bottom longlining
 - E. Agree on standards for vessel authorization
5. Other work items (as time permits) and development of a new work plan
 - A. Agree on standards for operational-level catch and effort data for other fishing methods
 - B. Agree on standards for trip report data
 - C. Agree on standards for landing and transshipment data
 - D. Agree on a work program for subsequent years, which is likely to include the development of standards for:
 - Market (catch documentation) data
 - VMS data
 - Observer data, etc.
6. Any other business
7. Adoption of the report

LIST OF PARTICIPANTS

**DATA AND INFORMATION WORKING GROUP
23- 25 APRIL 2007**

AUSTRALIA

Morison, Alexander

sandy.morison@brs.gov.au

CHILE

**Acevedo, Mario
Canales, Cristián
Covarrubias, Alejandro
Cubillos, Braulio
Polanco, Rodrigo**

macevedo@subpesca.cl
ccanales@subpesca.cl
acovarrubias@sernapesca.cl
bcubillos@sernapesca.cl
rpolanco@subpesca.cl

CHINA

**Yong Chen
Yingqi Zhou**

garychile@hotmail.com
yqzhou@shfu.edu.cn

REP. OF KOREA

Kim, Doonam

dnkim@nfrdi.re.kr

NEW ZEALAND

**Duckworth, Kim
Penney, Andrew
Smith, Neville**

Duckwork@fish.govt.nz
Andrew.Penney@fish.govt.nz
Neville.Smith@fish.govt.nz

RUSSIAN FEDERATION

**Glubokov, Alexander
Sushin, Vyacheslav**

glubokov@vniro.ru
sushin@atlant.baltnet.ru

UNITED STATES OF AMERICA

**Denit, Kelly
Karnella, Charles**

Kelly.Denit@noaa.gov
Charles.Karnella@noaa.gov

Swanson, Dean

Dean.Swanson@noaa.gov

CHINESE TAIPEI FISHING ENTITY

Chen, Chih-Shin
Kwoh, Chung-Hai
Lin, Kuo Ping
Wu, Ren-Fen
Wu, Ming Fen

ccshin@ntu.edu.tw
chunghai@ms1.fa.gov.tw
kuoping@ms1.fa.gov.tw
fan@ofdc.org.tw
mingfen@ms1.fa.gov.tw

Standards for the collection, reporting, verification and exchange of data

30 April 2007

With regard to the fishing vessels flying their flag and fishing for non-highly migratory fishery resources in the Area -

1. Data on fishing activities and the impacts of fishing

Participants are to develop, implement and improve systems to:

- (a) Ensure that data on fishing activities are collected from vessels according to the operational characteristics of each fishing method.
 - (i) For trawling methods Participants are to collect the data described in annex 1;
 - (ii) For purse seining methods Participants are to collect the data described in annex 2;
 - (iii) For bottom long lining methods Participants are to collect the data described in annex 3.
- (b) Ensure that data to assess the impacts of fishing on non-target and associated or dependant species are collected from vessels.
- (c) Compile data on fishing activities and the impacts of fishing and provide these in a timely manner to the interim Secretariat of the proposed South Pacific Regional Fisheries Management Organisation (SPRFMO). Such data are to be provided in sufficient detail to facilitate effective stock assessment. Participants will provide by the 30th September, their previous (January to December) year's data on fishing activities and the impacts of fishing.

2. Vessel data

Participants are to:

- (a) Establish a national record of vessels authorized to fish in the Area;
- (b) Collect vessel related data for standardizing fleet composition and vessel fishing power and for converting between different measures of effort in the analysis of catch and effort data. Participants will collect the data described in annex 4;
- (c) Compile vessel data and provide them in a timely manner to the interim Secretariat of the proposed SPRFMO. Participants are to provide data on vessels that they have authorized to fish in the following year, at least 3 months prior to the start of that year. Additionally, Participants are to provide data on vessels that they newly authorize to fish during a year, or when authorizations to fish are revoked during a year, within 1 month of granting or revoking such an authorization.

3. Historical data

Participants are to:

- (a) Collate pre-2007 data on fishing activities in the Area and provide these to the interim Secretariat of the proposed SPRFMO by 30th September 2007, in sufficient detail to facilitate effective stock assessment and in a format as close as is practical to that described in annexes 1, 2 and 3;
- (b) Because of the value of such data for stock assessments - at their discretion collate pre-2007 data on fishing activities by vessels flying their flag and fishing within areas under their national jurisdiction, and provide these to the interim Secretariat of the proposed SPRFMO by 30th September 2007 in

sufficient detail to facilitate effective stock assessment and in a format as close as is practical to that described in annexes 1, 2 and 3;

- (c) Collate pre-2008 vessel data and provide these to the interim Secretariat of the proposed SPRFMO by 30th September 2007, in a format as close as is practical to that described annex 4.

4. Data verification

Participants are to ensure that fishery data are verified through an appropriate system. Participants are to develop, implement and improve mechanisms for verifying data, such as:

- (a) Position verification through vessel monitoring systems;
- (b) Scientific observer programmes to collect verification data on catch, effort, catch composition (target and non-target), discards and other details of fishing operations;
- (c) Vessel trip, landing and transshipment reports; and
- (d) Port sampling.

5. Data exchange

When Participants provide data to the interim Secretariat of the proposed SPRFMO, they will do so in accordance with the specifications and format described in annex 5 of this document.

6. Maintenance of confidentiality

The interim Secretariat of the proposed SPRFMO is to compile and disseminate accurate and complete statistical data to ensure that the best scientific evidence

is available while maintaining confidentiality where appropriate. Specifically the interim Secretariat is to:

- (a) Compile and disseminate on request the following “public domain” data:
 - (i) Data on fishing activities, aggregated by flag state and calendar year and 5 degree by 5 degree areas, except in those cases where such data describes the activities of less than 3 vessels (in which case a lower resolution will be used);
 - (ii) Data on the number and type of vessels authorized to fish, aggregated by flag state and calendar year;
- (b) Operate comprehensive and robust processes to maintain the confidentiality of the non-public domain data that Participants provide to it. These processes will be based on the ISO17799 international standard for information security management³. SPRFMO specific data security standards will be developed over time;
- (c) Compile and disseminate to Participants or their designates non-public domain data (being any data not described in 6(a)):
 - (i) In response to a written request from the collective Parties to the Negotiation, for the purposes documented by those Parties; and
 - (ii) In the absence of a written request from the collective Parties to the Negotiation - only with the authorization of the Participant(s) that originally provided that data.

In the case that an interim Secretariat has not been established, the Convener of the Data and Information Working Group will assume the roles of the interim Secretariat with regard to the Maintenance of Confidentiality.

³ www.iso.org/iso/en/prods-services/popstds/informationsecurity.html

These standards will be reviewed periodically to ensure that they are adequate for the current and foreseeable needs of the proposed SPRFMO.

Annex 1

Standard for trawl fishing activity data

1. Data are to be collected on an un-aggregated (tow by tow) basis.

2. The following fields of data are to be collected:
 - (a) Vessel flag
 - (b) Vessel name
 - (c) Vessel call sign
 - (d) Registration number of vessel
 - (e) Tow start date
 - (f) Tow start time
 - (g) Tow end date
 - (h) Tow end time
 - (i) Tow start position (1/10th degree resolution)
 - (j) Tow end position (1/10th degree resolution)
 - (k) Intended target species
 - (l) Type of trawl, bottom or mid-water.
 - (m) Type of trawl, single, double or triple.
 - (n) Height of net opening
 - (o) Width of net opening
 - (p) Gear depth at start of fishing
 - (q) Bottom depth at start of fishing
 - (r) Catch retained on board by species in live weight
 - (s) An estimation of the amount of living marine resources discarded by species if possible
 - (t) Were any marine mammals, seabirds or reptiles caught (yes/no)

Annex 2

Standard for purse seine fishing activity data

1. Data are to be collected on an un-aggregated (set by set) basis.

2. The following fields of data are to be collected:
 - (a) Vessel flag
 - (b) Vessel name
 - (c) Vessel call sign
 - (d) Registration number of vessel
 - (e) Set start date
 - (f) Set start time
 - (g) Set end date
 - (h) Set end time
 - (i) Set start position (1/10th degree resolution)
 - (j) Net length
 - (k) Net height
 - (l) Intended target species
 - (m) School association
 - (n) Catch retained on board by species in live weight
 - (o) An estimation of the amount of living marine resources discarded by species if possible
 - (p) Were any marine mammals, seabirds or reptiles caught (yes/no)

Annex 3

Standard for bottom long lining fishing activity data

1. Data are to be collected on an un-aggregated (set by set) basis.

2. The following fields of data are to be collected:
 - (a) Vessel flag
 - (b) Vessel name
 - (c) Vessel call sign
 - (d) Registration number of vessel
 - (e) Set start date
 - (f) Set start time
 - (g) Set end date
 - (h) Set end time
 - (i) Set start position (1/10th degree resolution)
 - (j) Set end position (1/10th degree resolution)
 - (k) Intended target species
 - (l) Number of hooks
 - (m) Bottom depth at start of set
 - (n) Catch retained on board by species in live weight
 - (o) An estimation of the amount of living marine resources discarded by species if possible
 - (p) Were any marine mammals, seabirds or reptiles caught (yes/no)

Annex 4
Standard for vessel data

1. Data are to be collected on an un-aggregated (vessel by vessel) basis.

2. The following fields of data are to be collected:
 - (a) Current vessel flag
 - (b) Name of vessel
 - (c) Registration number
 - (d) International radio call sign (if any)
 - (e) Lloyd's / IMO number (if allocated)
 - (f) Previous Names (if known)
 - (g) Port of registry
 - (h) Previous flag (if any)
 - (i) Type of vessel
 - (j) Type of fishing method(s)
 - (k) When built
 - (l) Where built
 - (m) Length
 - (n) Moulded depth
 - (o) Beam
 - (p) Gross register tonnage
 - (q) Power of main engine(s)
 - (r) Hold capacity
 - (s) Name of owner(s)
 - (t) Address of owner(s)
 - (u) Name of operator(s)
 - (v) Address of operator(s)

Annex 5

Specifications for the exchange of data

1. Coordinated Universal Time (UTC) is to be used to describe times.
2. Degrees, Minutes and Seconds are to be used to describe locations. Where locations are required to be provided at the 1/10th of a degree resolution, this is to be achieved by rounding to the nearest 6 seconds.
3. The following coding schemes are to be used:
 - (a) Species are to be described using the FAO 3 letter species codes⁴
 - (b) Fishing methods are to be described using the International Standard Classification of Fishing Gear (ISSCFG - 29 July 1980) codes⁵
 - (c) Types of fishing vessel are to be described using the International Standard Classification of Fishery Vessels (ISSCFV) codes⁶
4. Metric units of measure are to be used, specifically:
 - (a) Kilograms are to be used to describe catch weight
 - (b) Metres are to be used to describe height, width, depth, beam or length
 - (c) Cubic metres are to be used to describe volume
 - (d) Kilowatts are to be used to describe engine power

⁴ www.fao.org/fi/statist/fisoft/asfis/asfis.asp

⁵ <ftp://ftp.fao.org/FI/DOCUMENT/cwp/handbook/annex/AnnexM1fishinggear.pdf>

⁶ <ftp://ftp.fao.org/FI/DOCUMENT/cwp/handbook/annex/annexLII.pdf>

**International Consultations on the Establishment of the South Pacific
Regional Fisheries Management Organization
Third International Meeting**

REPORT OF THE SCIENCE WORKING GROUP

**Reñaca, CHILE
25 – 27 April 2007**

1. Welcome & Introductions

The meeting of the interim Science Working Group (SWG) was opened by the nominated Chair, Mr Neville Smith, co-convenor for New Zealand, who welcomed all participants. Participants introduced themselves. (The full list of participants is attached in Annex III to this report)

2. Adoption of Agenda

The Chair noted some minor modifications to the agenda since circulation of the original draft prior to the meeting. Dr Alexander Glubokov noted that the content of the joint presentation by Russia / EC / Ukraine had changed and no longer dealt only with jack mackerel. He suggested that this be presented before the discussions on jack mackerel under agenda item 6. The presentation was moved to the first item under agenda item 6, and the revised agenda was then adopted (Annex I).

3. Administrative Matters

3.1 Documents Available

The Chair drew the meeting's attention to SPRFMO-III-SWG-00, the document list for the meeting, and indicated which documents had been made available in printed form, and which were only available in electronic format on the SPRFMO website. Three additional documents were added to the list: a NZ National Data Report, an Australian National Report and a working paper on data inventory. (The final documents list is attached in Annex II)

3.2 Meeting Arrangements

Details of logistical arrangements were presented by the meeting secretariat. The Chair outlined a proposed schedule for dealing with the items on the agenda.

3.3 Nomination of Rapporteurs

Andrew Penney (New Zealand), Sandy Morison (Australia) and Aquiles Sepúlveda (Chile) volunteered to act as rapporteurs for the meeting.

4. Review of Intersessional Work Programme

4.1 Progress Against Scientific Work Programme

Progress against the items listed in the scientific work programme from the previous meeting of the SWG was noted and discussed. Considerable progress that had been made on updating of templates, following up on information offers, developing species profiles, developing a template for provision of historic data (in cooperation with the D&IWG), developing profiles for seamounts and seabirds and developing a list of habitats and associated and dependent species.

4.2 Outstanding Tasks

A list was developed of items that were incomplete or had not been commenced and these were carried forward to be discussed under Agenda item 10.2, Future Work Programme. Main outstanding items include completing species profiles e) – k), developing profiles for ridges / plateaus and corals.

Further progress was made at the meeting on developing research proposals and proposing a research and assessment workshop for jack mackerel.

5. Species Profiles, Associated and Dependent Species Profiles and Habitat Profiles

5.1 Review of Existing Profiles

Review of Templates

The meeting reviewed the current SWG templates for preparation of species profiles (SPRFMO-III-SWG-05), associated and dependent species profiles (SPRFMO-III-SWG-06) and habitat profiles (SPRFMO-III-SWG-07).

The SWG noted that, when determining categorical rankings for factors such as biological productivity, it is important to provide quantitative information (such as actual growth rates) and references in support of the rankings given. Where uncertainty or alternate results exist, it is also important to report the uncertainty, or the range of results. Where the answer is unknown, it is better to report it as unknown, rather than allocate a ranking without supporting evidence.

Review of Profiles

The Chair noted that the intention in reviewing the current profiles was to identify major omissions or errors, and particularly to determine whether the overviews in each profile were suitable to be included in the SWG report as summaries of current SWG views regarding characteristics and status of the species concerned. Profiles requiring amendment would be included in the future work programme.

The meeting discussed the status and future revision process for profiles, and recommended that:

- Once finalised and agreed, all profiles should be compiled into a SWG Report, to be published by the future SPRFMO as a benchmark on characteristics and status of the various species, associated species and habitats.
- SWG meetings should then only update the overview statements for each profile annually, to be included in SWG meeting reports, focussing specifically on presenting updated or improved information on description of fisheries, species biology, status of the stocks and other aspects on which recent scientific progress has been made.
- Major reviews and amendments to the compilation of detailed profiles should be conducted periodically, perhaps every 5 years, to update the benchmark report with all the annually updated information gathered since the last profile update.

The species profile template will also be updated to show general changes relevant to all species, including:

- Where multiple ageing studies have provided conflicting results, information should be provided on ageing and validation methods to allow the relative reliability of these studies to be judged.
- References to productivity related to growth rates, etc. should be explicitly referred to as biological productivity.
- Where stock structure is uncertain, and pending the outcome of future studies to develop and adopt working stock structure hypotheses, references to ‘stocks’ or

‘state of stocks’ should refer to ‘assumed’ stocks, or to specific regions where assessments were conducted.

The meeting then reviewed the draft species profiles that had been completed to date:

- ***Chub Mackerel (Scomber japonicus) Profile*** (SPRFMO-III-SWG-08a)

Key points noted during discussion of the draft chub mackerel profile included:

- Future research requirements need to be documented, perhaps in cooperation with identification of research needs for jack mackerel.

- ***Jumbo Flying Squid (Dosidicus gigas) Profile*** (SPRFMO-III-SWG-09)

Key points noted during discussion of the draft *D. gigas* profile included:

- Chinese Taipei has started a squid jigging fishery on the high seas off Peru since 2002, and supplied information during the meeting.

- ***Neon Flying Squid (Ommastrephes bartrami) Profile*** (SPRFMO-III-SWG-10)

No major changes were proposed for the *O. bartrami* profile.

- ***Purple-Back Flying Squid (Sthenoteuthis oualaniensis) Profile*** (SPRFMO-III-SWG-11)

No major changes were proposed for the *S. oualaniensis* profile.

- ***Rock Lobster (Jasus caveorum) Profile*** (SPRFMO-III-SWG-12)

Key points noted during discussion of the draft *J. caveorum* profile included:

- Catch data for this species had been provided in the New Zealand national report, and should be included in this profile.

- ***Rock Lobster (Projasus parkeri) Profile*** (SPRFMO-III-SWG-13)

There is currently no fishery for this species, and it only constitutes a potential future fishery.

- ***Orange Roughy (*Hoplostethus atlanticus*) Profile*** (SPRFMO-III-SWG-14)

This profile was extensively updated a few weeks prior to the meeting to reflect comments received. Key points noted during discussion of the draft *H. atlanticus* profile included:

- It would be useful to insert a figure of orange roughy catches in the central and eastern south Pacific, if available.
- This profile contains an example of presentation of information useful to understanding relative reliability of alternate ageing studies.
- It should be emphasized that separate orange roughy stocks are recognized at very small spatial scales in relation to the global distribution of the species, such as in association with small groups of seamounts.
- Additional catch information presented in the Australian national report should be included, as well as results of the most recent Australian assessment for orange roughy on the South Tasman Rise.
- It should be noted that orange roughy were classified in 2006 as “*Conservation Dependent*” in terms of Australian domestic legislation, and made subject to a conservation programme.

- ***Chatham Albatross (*Thalassarche eremita*) Profile*** (SPRFMO-III-SWG-15)

In recognition of the IUCN classification of this seabird as “critically endangered”, Chatham albatross has been included as the first associated species profile.

- ***Seamount Habitat Profile*** (SPRFMO-III-SWG-16)

It was agreed that the draft template for habitat profiles should be updated to reflect the structure developed in compiling this first habitat profile for seamounts. Key points noted during discussion of the draft seamounts habitat profile included:

- Additional information on historical Russian seamounts research should be included once this has been published.
- A definition of what constitutes the base area of seamount features should be included, if available.

- ***Requirement for Stock Discrimination Hypotheses***

In general discussion, the SWG recognised the critical importance of developing and agreeing on stock structure and stock discrimination hypotheses upon which to base future assessments. Specific proposals made to address this need included:

- Interim stock structure hypotheses will need to be developed as a basis for future assessments of the species concerned, until the SWG agrees to change these stock structure assumptions.
- Additional future research is needed to provide new data and information required to fill gaps in current knowledge regarding stock structure.

5.2 Identification of Additional Data Sources for Updating Profiles

No significant new data sources were identified, but any new data items relevant to aspects of a particular species were noted during the review of each species profile.

5.3 Prioritisation of Further Species Profile Development

The SWG noted a number of previously identified profiles that still require development, and a few additional profile groups for consideration:

- Continue developing species profiles e) – k) (oreos, alfonsino, pelagic armourhead, bluenose, toothfish, cardinalfish and wreckfish).
- Consider inclusion of appropriate bycatch and associated and dependent sharks in the list of species profiles.
- Consider whether profiles are required for any other associated or dependent species.

6. Jack Mackerel Fishery Overview

6.1 Report from Russia/EC/Ukraine

A presentation was made by the Russian Federation (SPRFMO-III-SWG-19) on the scientific objectives of the proposed SPRFMO, work required, the results of previous studies, and suggested priorities for future scientific work. The presentation again emphasized the importance of conducting additional scientific work across the entire proposed high-seas convention area to provide information needed to develop robust stock structure hypotheses for jack mackerel and chub mackerel, to use as a basis for future assessments.

6.2 Report from Chile

Chile presented a comprehensive overview of the research conducted and the results of a recent statistical catch-at-age stock assessment conducted by them for the assumed Chilean jack mackerel stock in the area from the northern Chilean border to 45° S within the EEZ, and out 105°W between 35° S and 45°S (SPRFMO-III-SWG-18 & SPRFMO-III-SWG-20). In terms of this assessment the spawning biomass in this area was estimated to be 5,500,000t, with a confidence interval 2,000,000t – 8,900,000t in 2005. The stock was considered to be fully exploited, with current biomass near the target reference point of $B/B_0 = 40\%$, and the corresponding $F/F_{B40\%} = 1.25$.

The SWG noted the need to consider what effects oceanographic changes (such as El Niño phenomena) may have had on spawner-biomass estimates from egg production among other things, or annual recruitments. It was also noted that that the presentation contained useful information which could be used to update the jack mackerel profile.

The information in the presentation, and underlying data and analyses, should also be provided to the proposed workshop on jack mackerel stock structure.

6.3 Jack Mackerel Species Profile Update

The species profile (SPRFMO-III-SWG-16) was reviewed and agreed amendments and additions were noted for incorporation into the next version of the document. It was also agreed that there were additional data to be incorporated, and some reworking of sections that was required, but that these tasks would be most efficiently accomplished by intersessional work.

6.4 Future Research and Assessment

A research proposal from Chile for multi-disciplinary study of the population structure of jack mackerel (SPRFMO-III-SWG-21) was presented and discussed. There was general support for such a project including for the proposal to use a multi-disciplinary approach to address the question. The SWG agreed that further intersessional work was needed to expand and add more specific detail to the proposal regarding aspects such as research cruise proposals, survey and sample collection design, analysis methods and standards and inter-laboratory calibration.

A Jack Mackerel Stock Structure Task Team to conduct this inter-sessional research proposal development work was appointed under joint convenorship of Dr Serra and Dr Glubokov. It was noted that membership of this task team was open to any SPRFMO science participant who wished to contribute to the process. Initial interest in

participating in development of this proposal was expressed by Chile, the Russian Federation, New Zealand, China, Korea and the fishing entity of Chinese Taipei. The purpose of this task team would be to:

- Consider and expand the initial project proposal presented in SPRFMO-III-SWG-21.
- Specifically consider details under various components of the proposal regarding proposed research cruises, survey and sampling design, sample and data collection protocols, sample and data analysis methods and standards and inter-laboratory calibration.
- Present a detailed project proposal to the proposed jack mackerel workshop for review and finalisation.

The SWG also recognised the need to conduct a special *Jack Mackerel Stock Structure and Assessment Workshop* to specifically discuss and develop agreed working hypotheses on jack mackerel stock structure, and to consider joint assessment requirements and inputs under such stock structure hypotheses. The SWG recommended that the project proposal produced by the Jack Mackerel Task Team also be reviewed and finalised by the proposed workshop.

The objectives of the proposed workshop would be:

- To review all available information for south Pacific jack mackerel, and to develop a working hypothesis / hypotheses regarding jack mackerel stock structure in the region.
- To review available data and information available for use in jack mackerel stock assessments, and to agree on data inputs, biological parameters and assumptions to use in joint stock assessments of the jack mackerel stocks discriminated under the working hypotheses developed at the workshop.
- To review and finalise the project proposal prepared by the *Jack Mackerel Stock Structure Task Team*.

The terms of reference and tasks to be conducted by the task team and at the workshop need to be refined and agreed inter-sessionally. This should be done fairly rapidly, within a month or two.

With regard to organisation, it was noted that the proposed workshop would benefit from outside participation of independent experts on matters such as stock structure discrimination and assessment of species such as jack mackerel. The SWG suggested that the workshop be hosted by one of the parties to the SPRFMO negotiations, in

cooperation with the FAO. An offer by Chile to host the workshop, and to approach the FAO in this regard, was welcomed by the SWG.

With regard to timing, the SWG noted that it would take some time to finalise the jack mackerel stock structure research proposal and for prospective participants to evaluate their potential data inputs to the workshop. The workshop would specifically benefit from provision of historic catch and effort data in terms of the historic catch and effort data template agreed at the recent joint meeting of the SWG and D&IWG. (See Section 9.1 for additional details)

After considering other commitments of prospective participants, the SWG suggested that the workshop preferably be held between late Oct 2007 and Feb 2008.

6.5 Sub-Group Establishment

There was support for the establishment of a separate jack mackerel subgroup but the details of its convenor, degree of autonomy and work program are yet to be decided. These matters could be usefully be progressed at the proposed jack mackerel workshop.

An organisational chart of proposed interim and future SPRFMO science structures and processes was produced to illustrate expected relationships, status, composition, meeting frequency and purpose of structures like the SWG or Science Committee, Working Groups and Workshops, and is attached in Annex XV.

The meeting noted that, while a jack mackerel workshop had been proposed, a convenor for this workshop still has to be identified. Similarly, while the need for a jack mackerel sub-group was agreed to, a convenor was required for this group also. It was specifically noted that, given the increasing workload that will result from a specific jack mackerel sub-group, the convenor of that group could not be the Chair of the SWG.

With regard to proposed future science structures under a Commission, these ideas would need to be considered at Commission level. Only at that time will it be necessary to give attention to aspects of terms of reference, composition, chairmanship and rules of procedure for any future Science Committee and permanent science Working Groups.

7. Future Scientific Work Programme

7.1 Requirements for 30 April to 04 May 2007

The meeting concluded that there would be no need for any formal sessions of the SWG during the Negotiations. However, if possible, progress should be made in informal discussions on:

- The Terms of Reference and task list for the work of the jack mackerel stock structure research proposal task team being co-convened by Dr Serra and Dr Glubokov.
- A draft framework, and assistance with preparing a submission from Chile to the FAO requesting their assistance, for the proposed *Jack Mackerel Stock Structure Workshop & Assessment Workshop*.

7.2 Short and Medium Term Science Requirements

Science Requirements from this Meeting

A number of specific future science requirements were identified under various agenda items discussed above:

- Continue developing species profiles e) – k) (oreos, alfonsino, pelagic armourhead, bluenose, toothfish, cardinalfish and wreckfish).
- Consider inclusion of appropriate bycatch and associated and dependent sharks in the list of species profiles.
- Consider whether profiles are required for any other associated or dependent species.

With regard to science processes required to support research on jack mackerel, the SWG noted the specific progress and recommendations made at this meeting relating to designing a comprehensive multi-lateral, multi-disciplinary research programme, and conducting a specific stock structure and assessment workshop, to address immediate jack mackerel stock structure and assessment research needs.

Interim Implementation of Scientific Observer Programs

Noting the serious lack of scientific information for the high-seas in the proposed SPRFMO convention area, the SWG recognised an urgent need to implement scientific observer programs in this area. It was noted that the D&IWG had already identified an inter-sessional activity to develop draft standards for scientific observer programs in the

proposed SPRFMO convention area, but that these would take at least a year to develop. Pending development of these standards, information which should be collected by interim scientific observer programs should include:

- Effort data relevant to the fishing method (as per *SPRFMO Draft Standards for Collection, Reporting, Verification and Exchange of Data* Annexes 1, 2 and 3).
- Catch composition data for all species, including retained and discarded by-catches.
- Size-frequency information and otoliths for principal catch species, particularly for jack mackerel.
- Incidental catches and mortalities of associated species.

General Science Requirements

Requirements for robust peer-review of the science work were specifically being addressed for the proposed jack mackerel workshop by proposing the involvement of the FAO and independent scientific experts on stock structure and assessment. The SWG noted the likely future value of retaining some form of independent expert involvement in future SPRFMO science processes, particularly assessments.

The SWG will need to wait for a mandate from the Negotiations before being able to respond regarding science processes required to support interim measures. However, the SWG noted that the proposed science structures illustrated in Annex 15 are designed to be able to deal with any likely future SPRFMO science requirement.

8. Preparation of SWG Report

8.1 Overviews from Species Profiles

The overview sections of the species profiles were agreed during consideration of each profile under agenda item 5.1. These overviews are appended to this report as Annexes IV -XIII.

8.2 Report Back to Negotiations

The meeting identified the most important items to be highlighted in the SWG report-back to the Negotiations.

9. Any Other Business

9.1 Cooperation with the D&IWG

It was noted that a joint meeting had been held earlier between the SWG and the D&IWG, at which a draft template for submission of historic catch and effort data had been jointly prepared. Revisions to the draft were made as agreed at the joint meeting, and the revised data submission template is attached in Annex XIV. The Chair reminded the meeting that a deadline of 31 July had been agreed for notification of proposed revisions to this template.

The SWG proposed that, should no changes be received, the template should be considered to be adopted after 31 July in its current form. Otherwise, changes would be agreed inter-sessionally and the revised template adopted. As noted in the report of the DIWG, historic data submission should be required in terms of the final template by 30 September 2007.

9.2 National Reports

It was noted that Australia and New Zealand had provided national reports to this year's SWG meeting. There was general agreement that annual national reports would provide a useful mechanism for providing overviews of fisheries-related information to annual SPRFMO meetings.

From the science perspective, such reports could usefully provide summaries of information related to changes in fishing fleet composition and fishing areas, summaries of fishing effort and catches by species, overviews of research activities conducted and information on implementation of scientific observer programs in the preceding year.

It was not clear what emphasis should be placed on this matter under the current interim arrangements. However, it was noted that it would fall within the role of the negotiation process or future Commission to discuss the requirement and standards for annual national reports.

9.3 Chair of the SWG

The Chair of the SWG noted his intention to step down from his position following this meeting. There was agreement that New Zealand continue in the position of Chair, and Mr Andrew Penney was recommended as Chair of the next meeting of the SWG.

10. Future Work Programme

Elements of the future work programme of the SWG are contained in various sections of this report. (See Sections 5.1, 6.3, 6.4, 6.5, 7 and 9.1 for additional details)

11. Adoption of Report

The report was adopted by consensus.

The Working Group thanked the Mr Neville Smith for his hard work throughout the meeting and during meeting preparations.

**AGENDA – SCIENCE WORKING GROUP
Reñaca, CHILE, 25 – 27 April 2007**

- 1. Welcome & Introductions**
- 2. Adoption of Agenda**
- 3. Administrative Arrangements**
 - 3.4 Documents available
 - 3.5 Meeting arrangements
- 4. Review of intersessional work programme**
 - 4.3 Progress against scientific work programme
 - 4.4 Outstanding tasks
- 5. Species profiles, associated and dependent species profiles and habitat profiles**
 - 5.4 Review of existing profiles
 - 5.5 Identification of additional data sources for updating profiles
 - 5.6 Prioritisation of further species profile development
- 6. Jack mackerel fishery overview**
 - 6.6 Report from Russia/EC
 - 6.7 Report from Chile
 - 6.8 Jack mackerel species profile update
 - 6.9 Future research and assessment
 - 6.10 Sub-group establishment
- 7. Future scientific work programme**
 - 7.3 Requirements for 30 April to 04 May
 - 7.4 Short & medium term science requirements
- 8. Preparation of SWG report**
 - 8.3 Summary statements from species profiles
 - 8.4 Report back to negotiations
- 9. Any other business**
- 10. Future work programme**
- 11. Adoption of report**

**SCIENCE WORKING GROUP
Document List**

- SPRFMO-III-SWG-00: SWG Document List for Third Negotiating Session
- SPRFMO-III-SWG-01: Draft SWG agenda for 25 – 27 April 2007 meeting
- SPRFMO-III-SWG-01a: SWG Agenda for 25 – 27 April 2007 meeting
- SPRFMO-III-SWG-02: Annotated SWG agenda for 25 – 27 April 2007 meeting
- SPRFMO-III-SWG-03: Schedule for SWG 25 – 27 April 2007 meeting
- SPRFMO-III-SWG-04: SWG Work programme II (second intersessional period)
- SPRFMO-III-SWG-05: Species profile template
- SPRFMO-III-SWG-06: Associated and dependent species profile
- SPRFMO-III-SWG-07: Habitat profile
- SPRFMO-III-SWG-08: Draft chub mackerel profile
- SPRFMO-III-SWG-08a: Revised chub mackerel profile
- SPRFMO-III-SWG-09: Final *D. gigas* profile
- SPRFMO-III-SWG-10: Final *O. bartrami* profile
- SPRFMO-III-SWG-11: Final *S. oualaniensis* profile
- SPRFMO-III-SWG-12: Revised *J. caveorum* profile
- SPRFMO-III-SWG-13: Revised *P. parkeri* profile
- SPRFMO-III-SWG-14: Revised orange roughy profile
- SPRFMO-III-SWG-15: Final *T. eremita* profile
- SPRFMO-III-SWG-16: Revised jack mackerel profile
- SPRFMO-III-SWG-17: Draft seamount profile
- SPRFMO-III-SWG-18: Report from Chile on jack mackerel research and stock assessment
- SPRFMO-III-SWG-18a: *Presentation on* Report from Chile on jack mackerel research and stock assessment

SPRFMO-III-SWG-19: *Presentation* (Glubokov et al.): Objectives of science in functioning of RFMO in relation to the establishment of a new organization in the South Pacific

SPRFMO-III-SWG-20: Data inventory for jack mackerel stock assessment

SPRFMO-III-SWG-21: Jack mackerel stock structure research proposal

SPRFMO-III-SWG-21a: *Presentation on* Jack mackerel stock structure research proposal

SPRFMO-III-SWG-22: Catch history template developed with D&I WG

SPRFMO-III-SWG-23: New Zealand National Data Report

SPRFMO-III-SWG-24: Australian National Report

SCIENCE MEETING - LIST OF ATTENDANTS

SCIENCE WORKING GROUP
Reñaca, CHILE, 25- 27 APRIL 2007

AUSTRALIA

Morison, Alexander sandy.morison@brs.gov.au

CHILE

Acevedo, Mario macevedo@subpesca.cl
Canales, Cristián ccanales@subpesca.cl
Laborda, Cristián claborda@subpesca.cl
Polanco, Rodrigo rpolanco@subpesca.cl
Sepúlveda, Aquiles asepulveda@inpesca.cl
Serra, Rodolfo rserra@ifop.cl

CHINA

Yong Chen garychile@hotmail.com
Yingqi Zhou yqzhou@shfu.edu.cn

EUROPEAN COMMUNITY

Corten, Adrianus adcorten@yahoo.co.uk

FRANCE (including its overseas territories)

Bovy, Emmanuelle emmanuelle.bovy@peche.gov.pf

JAPAN

Nakatsuka, Shuya shuya_nakatsuka@nm.maff.go.jp

REP. OF KOREA

Kim, Doonam dnkim@nfrdi.re.kr

NEW ZEALAND

Duckworth, Kim
Penney, Andrew
Smith, Neville
Weeber, Barry

Duckwork@fish.govt.nz
Andrew.Penney@fish.govt.nz
Neville.Smith@fish.govt.nz
b.weeber@paradise.net.nz

RUSSIAN FEDERATION

Glubokov, Alexander
Sushin, Vyacheslav

glubokov@vniro.ru
sushin@atlant.baltnet.ru

UNITED STATES OF AMERICA

Denit, Kelly
Karnella, Charles
Koehler, Holly
Swanson, Dean

Kelly.Denit@noaa.gov
Charles.Karnella@noaa.gov
Koehlerhr@state.gov
Dean.Swanson@noaa.gov

CHINESE TAIPEI FISHING ENTITY

Chen, Chih-Shin
Kwoh, Chung-Hai
Lin, Kuo Ping
Wu, Ren-Fen
Wu, Ming Fen

ccshin@ntu.edu.tw
chungchai@msl.f.a.gov.tw
kuoping@msl.f.a.gov.tw
fan@ofdc.org.tw
mingfen@msl.f.a.gov.tw

PACIFIC ISLANDS FORUM FISHERIES AGENCY

Sloan, Sean

sean.sloan@ffa.int

Information describing chub mackerel (*Scomber japonicus*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

Scomber japonicus, Houttuyn, 1782, has a widespread pelagic distribution, primarily coastal. It also occurs to a lesser extent in the epi-pelagic and meso-pelagic over the continental slope. In the South Pacific the species is generally restricted to the eastern areas (it is replaced by the morphologically and ecologically similar *Scomber australasicus* in the west). It only appears to occur on the high seas of the South Pacific at the southern end of its range in the Southeast Pacific. The species occurs from the surface to about 250 or 300 m depth.

In the South Pacific *S. japonicus* catches are usually associated with the jack mackerel (*T. murphyi*) fishery and the species is generally taken as a commercially important bycatch in that fishery rather than as a target species in its own right.

Global landings of *S. japonicus* reached their peak (3 412 602 t) in 1978; since then they decreased to a low of 963 302 t in 1991 but, in the recent years, have slightly increased up to 1 556 888 t in 1995. The total global landings reported for this species by FAO for 1999 was 1 955 053 t.

Reported South Pacific (FAO Area 87) landings also peaked in 1978 (835,958 t), falling as low as 44,115 t in 1994 and increasing back up to 527,729 t in 1999 (27% of the global total in that year). Landings remained high from 2001 to 2004 (393,000 t to 699,000 t), but recent information from Chile, Peru and Ecuador suggests landings are at the lower end or below that range in 2005 and 2006.

Growth and physical characteristics of *S. japonicus* are reasonably well known, but the general biology of the species especially as it relates to stock structure and spawning are less well known.

The biological productivity of *S. japonicus* is likely to be moderate. The species is preyed upon by a large range of species and *S. japonicus* forms an important trophic link between production levels and top predators.

There has only been one recent assessment conducted for chub mackerel (by Chile in 2005). This covered the area from the northern Chilean border to 40° S within the EEZ, and out 84°W between 33° S and 40°S. The spawning biomass in this area was estimated to be 985,000t, with a confidence interval of 835,000t – 1,150,000 t in 2004. There have been no other assessments conducted on chub mackerel in the high seas proposed convention area.

There are currently no known management measures in place for *S. japonicus*.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The full species profile for chub mackerel is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>

Information describing jumbo flying squid (*Dosidicus gigas*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

Dosidicus gigas is the largest ommastrephid squid and occurs only within the Eastern Pacific Ocean from northern California to southern Chile. Within the equatorial area the range is stretched westward as a strip, narrowing to the west and reaching 140° W (Figure 1). *D. gigas* supports a major fishery off Chile, Peru and the Gulf of California, with combined cephalopod landings of 772 156 tonnes in 2004 (FAO 2004). *D. gigas* is monocyclic and dies after spawning, therefore populations are highly variable. The abundance of *D. gigas* is thought to be largely influenced by environmental variables such as ENSO events. During El Nino years populations have decreased and landings have reflected this by declining sharply.

The Chilean fishery for *D. gigas* is small and generally the result of bycatch, occurring predominantly within the EEZ. The Peruvian and Korean fisheries are the largest within the South Pacific, starting in 1991 and 1977 respectively. *D. gigas* are mainly caught by jigging at night with large lights to attract the squid.

D. gigas are fast growing and relatively short lived therefore biological productivity is high and extractions can potentially be large.

With their ~1 year lifespan, every *D. gigas* squid fishing season is based on incoming recruitment which is highly dependent on environmental conditions and typically variable. Accordingly, it is not possible to calculate reliable yield estimates from historical catch and effort data.

Squid jig is a very selective fishing method. The extent of the adverse impacts on the ecosystem from squid fishing is unknown. However, as with any large extraction of resources from the system, ecosystem effects are likely. The loss of fishing gear from squid fisheries may also have some minimal adverse effect. There is likely to be negligible damage to the habitat due to the fishing methods employed.

There are currently no known management measures in place for *D. gigas*.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The full species profile for jumbo flying squid is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>

Information describing neon flying squid (*Ommastrephes bartrami*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

Ommastrephes bartrami is the most broadly distributed species in the family Ommastrephidae with a circum-global distribution. *O. bartrami* is found in subtropical and warm temperate waters of all oceans except the Southeast Pacific. It is most prominent in the North Pacific, off the east coast of Japan and the west coast of USA. Within ocean basins the distribution of *O. bartrami* is patchy and highly aggregated.

O. bartrami is a large oceanic squid which schools at the surface at night. Little is known about their spawning behaviour. Spawning in Australian waters is thought to occur in spring to summer and over the continental shelf. *O. bartrami* matures between the ages of 7-10 months and has an estimated life span of ~1 year.

There is no information on migratory movements within the South Pacific, however in the North Pacific, *O. bartrami* make an annual round-trip migration between subtropical spawning grounds and northern feeding grounds near the sub-arctic boundary. There is no information about population structure within the South Pacific Ocean.

O. bartrami is fast growing and relatively short lived therefore biological productivity is high and extractions can potentially be large. The abundance of *O. bartrami* is highly variable and highly correlated with environmental variables. Extremely low squid abundances have been correlated with El Nino events.

With their 1 year lifespan, every *O. bartrami* fishing season is based on incoming recruitment which is highly dependent on environmental conditions and typically variable. Accordingly, it is not possible to calculate reliable yield estimates from historical catch and effort data.

In contrast to the North Pacific where major fisheries for *O. bartrami* exist, there is currently no known commercial harvest in the South Pacific Ocean. *O. bartrami* has been caught in small quantities as bycatch in the Australian arrow squid jig fishery.

In the period 1985-2005 the countries fishing *O. bartrami* in the Northern Pacific Ocean have been Japan, Chinese-Taipei and Republic of Korea. Since the wide-scale closure of driftnet fishing an increasing number of Chinese vessels have entered the fishery. Recently in the literature there have been reports of complaints about crowded conditions on the fishing grounds. Vessels from Canada and the United States have also recently entered the fishery. As the fishing pressure and the number of fishing nations increase, the potential for expanding fishing grounds into South Pacific grows.

There are currently no known management measures in place for *O. bartrami*.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The full species profile for neon flying squid is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

ANNEX VII

Information describing purple back flying squid (*Sthenoteuthis oualaniensis*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

Sthenoteuthis oualaniensis is thought to be the most abundant large squid in the tropical and sub-tropical waters of the Indo-Pacific region (Young and Hirota 1998, Dunning 1998). It has a patchy distribution and occurs from the Red Sea to Australia and from the west coast of Central America to the east coast of Africa, occupying a band about 40° north and south of the equator.

The population structure of *S. oualaniensis* appears complex with sub-populations of small, medium and large forms whose geographic ranges partially overlap. Their lifespan is approximately 1 year, they spawn and then die.

Little is known of their spawning behaviour. At present, *S. oualaniensis* is predominantly caught in the Northern Pacific as bycatch due to the low value of this squid. Little is known about catch history for this species.

S. oualaniensis are fast growing and relatively short lived therefore productivity is potentially high.

With their ~1 year lifespan, every *S. oualaniensis* squid fishing season is based on incoming recruitment which is highly dependent on environmental conditions and typically variable. Accordingly, it is not possible to calculate reliable yield estimates from historical catch and effort data.

There are currently no known management measures in place for *S. oualaniensis*.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The full species profile for purple back flying squid is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

Information describing Chilean jack mackerel (*Trachurus murphyi*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

This carangid mackerel is widespread throughout the South Pacific, from the shelf adjacent to Ecuador, Peru, and Chile; throughout the oceanic waters along the Subtropical Convergence Zone; in the New Zealand EEZ south of about 34 °S; and, in south-eastern waters of the Australian EEZ.

From mitochondrial DNA sequencing *Trachurus murphyi* has been identified as a distinct species (Poulin et al. 2004). Some earlier biological summaries have assumed synonymy with *T. symmetricus* and incorporated information from Californian studies of that species, which may therefore be misleading.

T. murphyi has become an important commercial species following a substantial increase in its abundance, confirmed by assessments, in the early seventies in the east; a large-scale westward expansion process into oceanic waters; and a subsequent invasion of New Zealand and Australian waters. Research has been extensive in some of these fisheries.

There have been a number of competing stock structure hypotheses, and up to four separate stocks have been suggested: a Chilean stock which is a straddling stock with respect to the high seas; a Peruvian stock which is also a straddling stock with the high seas; a central Pacific stock which exists solely in the high seas; and, a southwest Pacific stock which straddles the high seas and both the New Zealand and Australian EEZs. However, further collaborative research is required to confirm and/or clarify this hypothesised stock structure as a basis for effective management regimes.

Jack mackerel are predominantly caught by purse seine and midwater trawl.

Since the start of the fishery in 1950 the majority (~75%) of the global catch has been taken by Chilean vessels predominantly within its EEZ. During the period 1978-1990 the fleet of the former USSR took a catch of ~10 million tonnes in the high seas area. Between 1994 and 2002, most of the Chilean catch of *T. murphyi* was taken within its EEZ, but in 2003 and 2004 32% and 28% was taken outside the EEZ. In 2004 the Chilean catch was ~363 000 tonnes from the high seas within the South Pacific region. In recent years other flags including China, Netherlands, Republic of Korea, and Russia have taken catches on the high seas in the South Pacific region. At the western extent of the species range the high seas catch is much smaller, with New Zealand catches of <1 tonne in 2005. It is not currently possible to accurately quantify high seas catches as reporting is incomplete and those data that are reported do not separate between high seas and within EEZ catches.

The biology of *T. murphyi* is reasonably well known and biological productivity is believed to be medium, with first spawning at 20 – 25cm, moderate fecundity, fairly rapid growth and a maximum age of ~20-30 years. Annual replacement yields are moderately high.

Currently, with the exception of Chilean vessels, there are no management measures in place for jack mackerel fisheries on the high seas (although all New Zealand and Australian flagged vessels that may take this species as an occasional bycatch are regulated by a high seas permitting regime).

Due to the nature of the straddling Chilean stock, the same regulatory controls that apply within the Chilean EEZ also apply on the high seas. These controls include maximum catch limits per vessel owner and minimum size limits.

Although jack mackerel constitute a large resource, there have been concerns at a regional (assumed stock) level. For example, the Chilean straddling stock of *T. murphyi* is currently considered to be fully exploited. There is also an important ecological consideration related to potential over-harvesting of the jack mackerel resource. This relates to potential changes in predator-prey relationships. Jack mackerel constitute both a large predator pool, and a large prey resource, and probably fulfil an important role as a critical node in Pacific Ocean predator-prey networks. Experiences in other ecosystems have shown that substantial changes in the biomass of key species in the food web can lead to substantial and unpredictable responses in both their predators and their prey. Significant changes in predator-prey relationships are likely to cause shifts in food-web structure which are then not necessarily reversed by the reduction of fishing pressure.

For the Chilean (straddling) stock, current stock assessment suggests that the stock is at full exploitation and, given the moderate productivity of this species, caution with respect to any increases in fishing mortality is needed.

For the other stocks given the absence of current information, it is not appropriate to provide detailed comment. However, given the moderate productivity of this species and the lack of information about current stock biomass levels, due caution is appropriate.

There has been a substantial amount of historical research on this species, particularly by Russia and Chile. However, substantially less research has been conducted over the past decade, except within the EEZs of a few coastal states.

Research is required to improve the understanding of the stock structure of *T. murphyi* to aid the development of appropriate management units, to obtain biomass estimates for stocks actively fished as inputs to stock assessment modelling, to undertake stock assessment for the fished stocks to provide robust fisheries management advice, and to evaluate bycatch levels, bycatch composition and levels of incidental catch of associated and dependent species in the active high seas fisheries to address issues associated with an ecosystem approach to fisheries management.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete. **Note:** The full species profile for jack mackerel is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

Information describing orange roughy (*Hoplostethus atlanticus*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

This species occurs in the north and south Atlantic, in the south-central Indian ocean, in the Tasman sea, on the New Zealand shelf, on seamounts and ridges to the east of New Zealand, and off central and Southern Chile. In the South Pacific, orange roughy aggregates in deep, cold waters over steep continental slopes, canyons, ocean ridges, and underwater topographical features such as seamounts, especially during spawning and feeding.

Orange roughy have very low biological productivity. This is due to a combination of late onset of maturity; low fecundity; low annual growth rate; and high longevity.

Target trawl fisheries for orange roughy have occurred in the South Pacific since the late 1970's to the present day. The Lord Howe Rise and Northwest Challenger Plateau have been the main areas of orange roughy catch in the Tasman Sea outside the New Zealand and Australian EEZs. A fishery on the Norfolk Ridge is a recent development, and the Louisville Ridge fishery to the east of New Zealand continues. Catches peaked in the area in the mid 1990s at around 15,000 t, but in recent years have been 2,000-3,000 t.

Incidental captures of seabirds, through interaction with trawl warps have been reported in some orange roughy trawl fisheries but none have been reported to date by observers on vessels fishing in the Southwest Pacific high seas area.

The main commercial bycatch species when targeting orange roughy on the high seas include: oreos (*Allocyttus niger*, *Pseudocyttus maculatus*, *Neocyttus rhomboidalis*), cardinalfish (*Epigonus telescopus*), ribaldo (*Mora moro*), seal sharks (*Dalatias* spp.), alfonsino (*Beryx splendens*), and rattails. A further 100 plus fish species have been recorded as bycatch from orange roughy fisheries by observers on vessels fishing in the Southwest Pacific high seas area. The mix of species that orange roughy is associated with varies with latitude.

The main method used to catch this species is a high-opening trawl generally fished hard down on the bottom. Trawling for this species on seamounts, knolls and pinnacles has substantial impacts on habitat and benthic invertebrate species, but the reciprocal impact of this on the orange roughy populations or other species is unknown.

There are no regulations regarding limits on catch in international waters of the South Pacific with the exception of the South Tasman Rise region.

There are currently no accepted stock assessments for orange roughy high seas fisheries in the South Pacific and the status of the five known high seas orange roughy stocks (fisheries) in the Southwest Pacific is unknown but likely to range from fully exploited to over exploited.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete. **Note:** The full species profile for orange roughy is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

Information describing deepwater rock lobster (*Projasus parkeri*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

This palinurid lobster appears to be widespread in the western South Pacific Ocean between approximately 33°S and 45°S. It has most often been found associated with seamounts, banks, and ridges, at depths of 330–1200 m. There is no known commercial fishing of this lobster in the South Pacific, but it is likely that in some locations this lobster exists in commercial quantities. Little is known of its biology. Based on similarities with closely related lobster species it is assumed that there is a long-lived (many months) phyllosoma larval stage that is reasonably widespread in the South Pacific Ocean.

P. parkeri has been commercially fished (down to >1000 m) on seamounts north and northeast of St Paul and Amsterdam Islands in the Indian Ocean (W.R. Webber, MONZ, pers. comm.). *P. bahamondei* has been, and probably still is being, fished in international waters in the eastern South Pacific Ocean by vessels using crab pots on trot lines.

P. parkeri may be locally common in places, and with successful commercial fishing of it in the Indian Ocean, it is expected that it will eventually be targeted in the South Pacific.

There are currently no known management practices in place for *P. parkeri*.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The full species profile for deepwater rock lobster is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

Information describing rock lobster (*Jasus caveorum*) fisheries relating to the South Pacific Regional Fishery Management Organisation

Overview

This palinurid lobster appears to be confined to one chain of seamounts, southeast of Pitcairn Island, where it has been sporadically fished over the past 10 years yielding catches in the tens of tonnes. Little is specifically known of its biology, although it is likely to be very similar to that of all other *Jasus* species and particularly its nearest neighbours *J. frontalis* at Juan Fernandez Islands and *J. edwardsii* in New Zealand. It is assumed that there is a long-lived (many months) phyllosoma larval stage that is reasonably widespread within the south-east Pacific Ocean.

It is not envisaged that this species will be the subject of anything but sporadic targeted fishing because of the remoteness of the Foundation Seamounts and apparently small size of the stock; none of the several visits to the area seems to have returned large quantities of product. Other isolated *Jasus* stocks have been quickly fished down to uneconomic levels (e.g., *J. tristani* on the Vema Seamount—Heydorn 1969), and the impression is that these relatively small populations developed over the eons and are unable to sustain heavy fishing pressure.

There are currently no known management practices in place for *J. caveorum*.

The species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The full species profile for rock lobster is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

Information describing seamount habitat relevant to the South Pacific Regional Fisheries Management Organisation

Overview

Seamounts are elevated seafloor features. The geological definition of a seamount is any feature greater than 1000 m in elevation from the seabed and of limited extent across the summit. Other underwater features with less than the 1000 m elevation are also usually referred to as seamounts by biologists due to the similarity in biological communities between such features and geologically defined seamounts. The biological definition of seamounts, which is any elevated seafloor feature above 250 m, is used here.

Seamounts are typically associated with upwelling, elevated levels of productivity and support unique biological communities with high levels of endemism. Seamounts are an important habitat for commercial deepwater fish stocks such as cardinalfish, orange roughy, oreos, alfonsino and bluenose, which aggregate around these features for either spawning or feeding.

Seamounts are becoming increasingly vulnerable to fishing as technology has allowed the expansion of fishing fleets beyond areas of national jurisdiction and onto the high seas. The predominant fishing method over seamounts is the bottom trawl. The effects of trawl gear have been well documented and, depending on the degree of contact with the bottom, these include effects such as scraping and ploughing of the seabed, sediment re-suspension, the destruction of non-target benthic animals, especially calcified structural forms like corals and sponges.

Very little is known about the interactions between the biological communities that inhabit seamounts and the level of dependence of the specific community components on one another. Bottom trawling is likely to have negative effects on the long-term sustainability of seamount habitats, and hence on associated components, including commercial fish populations, although the likely duration of these effects have not yet been properly quantified.

There are currently minimal management practices in place to protect the biodiversity on seamounts on the high seas in the South Pacific Ocean. Recently the United Nations General Assembly agreed to implement an ecosystem approach to fisheries management, and requires interim measures to avoid the adverse impacts of bottom trawling to be in place by December 2007 (UNGA Sustainable Fisheries Resolution 61/105).

The habitat profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The habitat profile for seamounts is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>

**Information describing the associated and dependent species Chatham albatross
Thalassarche eremita relating to the South Pacific Regional Fisheries
Management Organisation**

Overview

The Chatham albatross breeds at a single site in the Chatham Islands, New Zealand, and migrates each year across the South Pacific to spend the austral winter in the EEZs of Peru and Chile. It is one of 10 or more species of albatross that migrate annually across the South Pacific. While the proportion of time spent in high seas areas is relatively low, this albatross species has a small effective population size and high threat status making them vulnerable to any increase in mortality through interaction with fisheries.

By-catch rates in the high seas areas are largely unknown, but by-catch of Chatham albatrosses and other species in trawl fisheries has been recorded within New Zealand and South American EEZs. Given their high threat status it is important to monitor by-catch rates within fisheries of the South Pacific. Management of offal and discards is likely to be a key measure to reduce seabird by-catch in trawl fisheries. Research elsewhere has indicated that tori lines or other bird scaring devices can also be used effectively to reduce seabird warp strikes and by-catch by trawlers.

The associated and dependent species profile upon which this summary is based is a living document. It is a draft report and requires additional information to complete.

Note: The associated and dependent species profile for *T. eremita* is available at <http://www.southpacificrfmo.org/working-groups/public/current-work/>.

Preliminary template for compilation of historical catch and effort data

25 April 2007

Participants are to collate pre-2007 data on fishing activities in the Area and provide these to the interim Secretariat of the proposed SPRFMO by 30th September 2007 in sufficient detail to facilitate effective stock assessment. The fields of data to be provided are as follows:

Standard for historical trawl fishing activity data in the proposed Convention

Area

As a minimum	Preferably	If practical
Number of vessels fishing	Vessel call sign	The fields described in Annex 1 of the <i>SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)</i>
Calendar year	Calendar year and Month	
FAO statistical area	5 degree by 5 degree grid; separating inside areas of national jurisdiction and high seas	
Catch retained by species in live weight	Catch by species by above strata in live weight	
Total vessel days fished, if available	Number of bottom trawls made in month; number of mid-water trawls made in month	

Standard for historical purse seine fishing activity data in the proposed

Convention Area

As a minimum	Preferably	If practical
Number of vessels fishing	Vessel call sign	The fields described in Annex 2 of the <i>SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)</i>
Calendar year	Calendar year and Month	
FAO statistical area	5 degree by 5 degree grid; separating inside areas of national jurisdiction and high seas	
Catch retained by species in live weight	Catch by species by above strata in live weight	
Total vessel days fished, if available	Number of purses set in month	

Standard for historical bottom long lining fishing activity data in the proposed Convention Area

As a minimum	Preferably	If practical
Number of vessels fishing	Vessel call sign	The fields described in Annex 3 of the <i>SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)</i>
Calendar year	Calendar year and Month	
FAO statistical area	5 degree by 5 degree grid; separating inside areas of national jurisdiction and high seas	
Catch retained by species in live weight	Catch by species by above strata in live weight	
Total vessel days fished, if available	Number of hooks deployed in month	

Data will be provided in accordance with the specifications and format described in annex 5 of the *SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)*.

Historic data submissions should be accompanied by metadata describing the data sources for each data set and providing some information on the precision and reliability of each data set.

South Pacific RFMO Proposed Science Structures & Processes

Interim Arrangements

Science Working Group
Responsible for interim coordination of research planning efforts and interim assessment activities

(Interim, convenor, meets annually before Negotiation)

Jack Mackerel Sub-Group
Responsible for interim jack mackerel research and assessment

(Interim, Convenor, meets annually before SWG, or more often if needed)

Jack Mackerel Stock Structure Workshop
Development of stock structure hypotheses and definition of inputs for initial joint jack mackerel assessment

(Ad-hoc, task team with convenor, meets once, outside participation if needed)

Formal Commission

Science Committee
Responsible for overall science plenary planning role, overview of Working Groups, conducting science not allocated to WGs and management advice to Commission

(Permanent, Chair, meets annually before Commission meeting)

Jack Mackerel Working Group
Responsible for all jack mackerel research and assessment

(Permanent, Chairs, meet annually Before SC, or more often if needed)

Ad-Hoc Workshops or Special Consultations
Conducted when needed, following recommendation by a permanent Working Groups, and after approval by the Science Committee and Commission, to address science activities too specialised for a WG

(Ad-hoc, task team with convenor, meets once, outside participation if needed)

Template for compilation of historical catch and effort data

02 May 2007

Participants are to collate pre-2007 data on fishing activities in the Area and provide these to the interim Secretariat of the proposed SPRFMO by 30th September 2007 in sufficient detail to facilitate effective stock assessment. The fields of data to be provided are as follows:

Standard for historical trawl fishing activity data in the proposed Convention Area

As a minimum	Preferably	If practical
Number of vessels fishing	Vessel call sign	The fields described in Annex 1 of the <i>SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)</i>
Calendar year	Calendar year and Month	
FAO statistical area	5 degree by 5 degree grid; separating inside areas of national jurisdiction and high seas	
Catch retained by species in live weight	Catch by species by above strata in live weight	
Total vessel days fished, if available	Number of bottom trawls made in month; number of mid-water trawls made in month	

Standard for historical purse seine fishing activity data in the proposed Convention Area

As a minimum	Preferably	If practical
Number of vessels fishing	Vessel call sign	The fields described in Annex 2 of the <i>SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)</i>
Calendar year	Calendar year and Month	
FAO statistical area	5 degree by 5 degree grid; separating inside areas of national jurisdiction and high seas	
Catch retained by species in live weight	Catch by species by above strata in live weight	
Total vessel days fished, if available	Number of purses set in month	

Standard for historical bottom long lining fishing activity data in the proposed Convention Area

As a minimum	Preferably	If practical
Number of vessels fishing	Vessel call sign	The fields described in Annex 3 of the <i>SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)</i>
Calendar year	Calendar year and Month	
FAO statistical area	5 degree by 5 degree grid; separating inside areas of national jurisdiction and high seas	
Catch retained by species in live weight	Catch by species by above strata in live weight	
Total vessel days fished, if available	Number of hooks deployed in month	

Data will be provided in accordance with the specifications and format described in annex 5 of the *SPRFMO Standards for the collection, reporting, verification and exchange of data (25 April 2007)*.

Historic data submissions should be accompanied by metadata describing the data sources for each data set and providing some information on the precision and reliability of each data set.

INTERIM MEASURES ADOPTED BY PARTICIPANTS IN NEGOTIATIONS TO ESTABLISH SOUTH PACIFIC REGIONAL FISHERIES MANAGEMENT ORGANISATION

Participants in the negotiations to establish a South Pacific Regional Fisheries Management Organisation (SPRFMO) **are to** take the following interim measures in accordance with their laws and regulations, taking into account an ecosystem approach to fisheries management and the precautionary approach, for vessels flying their flag and fishing for non highly migratory fish species in the high seas of the South Pacific Ocean (the Area)⁷ in order to achieve the sustainable management of fish stocks and the protection of vulnerable marine ecosystems of the Area.

These interim measures are voluntary and are not legally binding under international law.

Period of Application and Review

These interim measures are to be effective from 30 September 2007 and, unless specified otherwise, are to apply until the entry into force of the Agreement under negotiation to establish the SPRFMO and the adoption of conservation and management measures pursuant to that Agreement.

The Participants are to review these interim measures, as necessary, so that they may be revised at future meetings.

The interim Secretariat is requested to make these interim measures publicly available.

Pelagic fisheries

In respect of pelagic fisheries, Participants resolve:

1. To commit themselves to limit the total level of gross tonnage (GT) of vessels flying their flag fishing for pelagic stocks in 2008 and 2009 to the levels of total GT recorded in 2007 in the Area. Participants will communicate by 1 January 2008 to the interim Secretariat the total level of GT recorded in the Area in 2007 for those vessels flying their flag actively fishing in 2007. In notifying this information, Participants will verify the effective presence of their vessels in the Area in 2007 through VMS records, catch reports, port calls or other means. The interim Secretariat will have access to such information upon request.
2. That taking into account the interests of coastal and fishing States with a catch history in the pelagic fisheries in the South Pacific, but not exercising their fisheries activities in 2007, these States may enter the fishery in the Area in 2008 and 2009 and will exercise voluntary restraint of fishing effort. These States will promptly notify the Interim Secretariat of the names and characteristics, including GT, of their vessels engaged in the fishery in the Area.

⁷ The area is under negotiation, but for the purposes of these interim measures it will be the high seas area south of the Equator, north of the CCAMLR Convention area, east of the SIOFA Convention Area and west of the areas of fisheries jurisdictions of South American States.

3. To submit for review to the interim Science Working Group any stock assessments and research in respect of pelagic stocks in the Area and to promote the active participation of their scientific experts in the Jack Mackerel Stock Structure Task Team, the Jack Mackerel Stock Structure and Assessment Workshop, and, when established, the interim Science Working Group's Jack Mackerel subgroup.
4. That in 2009, the interim Science Working Group will give advice to the Meeting of Participants on the status of the pelagic stocks and that the Participants, based on the advice from the interim Science Working Group, will determine the conservation and management measures to be applied from 2010 onwards.
5. To cooperate through coastal States adjacent to the Area informing the interim Secretariat of their own conservation and management measures in respect of straddling pelagic stocks.
6. In undertaking scientific research activities on pelagic stocks in the Area, including joint research, for assessment purposes, to do so in accordance with a research plan that has been provided to the interim Secretariat for forwarding to the interim Science Working Group and all Participants, preferably 60 days prior to the commencement of that activity. Participants will provide promptly a report of the results of such scientific research activities to the interim Secretariat for circulation to all Participants.
7. To ensure, to the extent practicable, an appropriate level of observer coverage on fishing vessels flying their flag in order to observe the pelagic fisheries in the Area and collect relevant scientific information.
8. To strengthen its control over vessels flying its flag fishing for pelagic fisheries by ensuring that all such vessels operating in the Area be equipped with an operational vessel monitoring system no later than 31 December 2007, or earlier if so decided by the flag State.
9. That these interim measures do not apply to squid fisheries in the Area.

Bottom fisheries

Management of bottom fishing

In respect of bottom fisheries, Participants resolve to:

1. Limit bottom fishing effort or catch in the Area to existing levels⁸ in terms of the number of fishing vessels and other parameters that reflect the level of catch, fishing effort, and fishing capacity.
2. Not expand bottom fishing activities into new regions of the Area where such fishing is not currently occurring.

⁸ Existing levels of fishing effort or catch means the average annual levels over the period 1 January 2002 to 31 December 2006.

3. Starting in 2010, before opening new regions of the Area or expanding fishing effort or catch beyond existing levels, establish conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems⁹ and the long-term sustainability of deep sea fish stocks from individual bottom fishing activities or determine that such activities will not have adverse impacts, based on an assessment undertaken in accordance with paragraphs 11 and 12 below.
4. Cooperate through coastal States adjacent to the Area informing the interim Secretariat of their own conservation and management measures in respect of deep sea fish stocks.
5. Cooperate to identify, on the basis of the best available scientific information, vulnerable marine ecosystems in the Area and to map sites where these ecosystems are located, and provide such data and information to the Interim Secretariat for circulation to all Participants.
6. In respect of areas where vulnerable marine ecosystems are known to occur or are likely to occur based on the best available scientific information, close such areas to bottom fishing unless, based on an assessment undertaken in accordance with paragraphs 11 and 12 below, conservation and management measures have been established to prevent significant adverse impacts on vulnerable marine ecosystems and the long-term sustainability of deep sea fish stocks or it has been determined that such bottom fishing will not have significant adverse impacts on vulnerable marine ecosystems or the long term sustainability of deep sea fish stocks.
7. Require that vessels flying their flag cease bottom fishing activities within five (5) nautical miles of any site in the Area where, in the course of fishing operations, evidence of vulnerable marine ecosystems is encountered, and report the encounter, including the location, and the type of ecosystem in question, to the interim Secretariat so that appropriate measures can be adopted in respect of the relevant site. Such sites will then be treated in accordance with paragraph 6 above.
8. Notwithstanding paragraph 2, in regions of the Area where bottom fishing is not currently occurring, undertake, as appropriate, scientific research activities for stock assessment purposes in identified parts of such regions and only in accordance with a research plan that has been provided to the interim Secretariat for forwarding to the interim Science Working Group and all Participants, preferably 60 days prior to the commencement of that activity. Participants will provide promptly a report of the results of such scientific research activities to the interim Secretariat for circulation to all Participants.
9. Appoint observers to each vessel flying their flag and undertaking or proposing to undertake bottom trawling activities in the Area and ensure an appropriate level of observer coverage on vessels flying their flag and undertaking other bottom fishing activities in the Area.

⁹ For the purposes of these interim measures, “vulnerable marine ecosystems” includes seamounts, hydrothermal vents, cold water corals and sponge fields.

10. To strengthen its control over bottom fishing vessels flying its flag, each participant will ensure that all such vessels operating in the Area be equipped with an operational vessel monitoring system no later than 31 December 2007, or earlier if so decided by the flag State.

Assessment of bottom fishing

Participants resolve to:

11. 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.
12. Apply the following procedures regarding the assessment described in paragraph 11 above:
 - a) Participants are to submit to the interim Science Working Group their assessments of whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, including the proposed management measures to prevent such impacts, and make these assessments publicly available.
 - b) The interim Scientific Working Group will review the assessments and proposed management measures and provide comments to the submitting Participant. For the purposes of carrying out such reviews, the interim Scientific Working Group will design a preliminary interim standard for reviewing the assessments and develop a process to ensure comments are provided to the submitting Participant and all other Participants within two months. In the meantime, the submitting Participant may provisionally apply their proposed management measures.
 - c) Participants may, on the basis of the assessments submitted under sub-paragraph (a) above and the comments provided under sub-paragraph (b) above, authorize vessels flying their flag to undertake bottom fishing activities in the region of the Area for which the assessment was conducted and require such vessels to implement conservation and management measures to prevent significant adverse impacts.
 - d) Participants are to notify the interim Secretariat of the measures required under sub-paragraph (c) above and a list of the vessels to which the measures relate, and to make that information publicly available.
13. In undertaking the assessments as described in paragraphs 11 and 12 above, take into account any international technical guidelines regarding standards, criteria or specifications for identifying vulnerable marine ecosystems and the impacts of fishing activities on such ecosystems that may have been developed.

Data collection and sharing

In respect of data collection and sharing, Participants resolve:

To collect, verify and provide data in accordance with the procedures outlined in the SPRFMO Standards for the collection, reporting, verification and exchange of data.

Cooperation with other States

Participants resolve, individually or jointly, to request those States that are fishing for non-highly migratory fish species in the Area but not participating in the negotiations to establish a South Pacific Regional Fisheries Management Organisation (SPRFMO) to cooperate fully in the implementation of these interim measures and to consider participating in the SPRFMO negotiations.

Special Requirements of Developing States

In recognition of the special requirements of developing States, in particular small island developing States and territories, Participants are urged to provide financial, scientific and technical assistance, where available, to enhance the ability of those developing States to implement these interim measures and participate effectively in the negotiations for the SPRFMO Agreement under discussion.

ARRANGEMENTS FOR AN INTERIM SECRETARIAT

Pending the establishment of a Secretariat under the Agreement being negotiated to establish the South Pacific Regional Fisheries Management Organisation, an interim Secretariat will be hosted by New Zealand on the following basis:

Role

1. The interim Secretariat will provide the administrative support necessary for the effective implementation of interim measures. Its roles will include:
 - (a) Data Management - The receipt, compilation, storage and dissemination (where appropriate) of data submitted by the Participants;
 - (b) Document Management - The receipt, storage and dissemination of reports and documents submitted by the Participants;
 - (c) Meetings - Providing assistance to the relevant host in organising meetings of the Consultations and of subsidiary bodies of the Consultations;
 - (d) Website - The management of the contents of the SPRFMO website.

Governance and Staffing

2. The interim Secretariat will be a stand alone agency comprising up to four staff.
3. The Executive Secretary of the interim Secretariat will be accountable to, and report to, the Participants through the Chair of the negotiations.
4. The Chair of the negotiations will oversee the appointment of staff.
5. The staff will be contracted by the Government of New Zealand but will be independent of the Government of New Zealand.

Office

6. The interim Secretariat's office will be located in the central business district of Wellington, New Zealand.
7. The office will include: at least 60m² of air conditioned office space, facilities to host small meetings of up to 12 people, telephone, fax and email communications.

Security Standards

8. The interim Secretariat will meet or exceed all security requirements agreed by the Participants to the negotiation, inter alia the confidentiality requirements defined in the SPRFMO Standards for the collection, reporting, verification and exchange of data.

Office Security

9. The interim Secretariat's office space will be secured by doors with electronic locks. The unlocking of doors will be automatically logged.
10. If the interim Secretariat's office space has windows within 6 metres of the ground, such windows will be secured by metal bars.
11. The office space will be monitored by electronic motion sensors. Security guards will be contracted to respond to any unexpected activation of the motion sensors.
12. Only authorised people would be granted access to the office space.
13. A record will be kept of visitors to the office.

Computer security

14. Modern and comprehensive firewalls and virus checking software will protect the interim Secretariat's computer systems.
15. Only staff and contractors duly authorised by the Executive Secretary will have access to the interim Secretariat's computer systems. Access will be via passwords. Passwords will be changed regularly.
16. Access by staff or contractors to sensitive data or reports will be logged.
17. Computer systems will be regularly backed up, and disaster recovery planning and preparations will occur.
18. A safe will be used to store any sensitive data that have been provided by Participants on storage media such as DVD or CD.

Personnel security

19. Interim Secretariat staff will undergo appropriate security checks before employment.
20. Employment contracts will contain clauses requiring staff to maintain the confidentiality of sensitive data or reports to which they have access.
21. Employment contracts will allow for the dismissal of any staff that breach their conditions of employment.
22. Any contractors that need to be employed to achieve specific tasks will be subject to similar constraints and will be monitored during their work.

Funding

23. New Zealand will fund the interim Secretariat during its first year of operation. Participants are invited to provide voluntary contributions to assist with this funding.
24. Funding for subsequent years will be discussed at the 4th International Consultation on the Establishment of the SPRFMO.