NPFC

North Pacific Fisheries Commission

Yearbook 2015–2016

North Pacific Fisheries Commission

Yearbook 2015-2016

Published by:

North Pacific Fisheries Commission
2nd Floor Hakuyo Hall,
Tokyo University of Marine Science and Technology,
4-5-7 Konan, Minato-ku, Tokyo
108-8477, JAPAN

TEL +81-3-5479-8717
FAX +81-3-5479-8718
Email secretariat@npfc.int
Website www.npfc.int

This publication may be cited in the following manner:
North Pacific Fisheries Commission. 2017. 1st NPFC Yearbook (2015-2016). 168 pp. (Available at www.npfc.int)

North Pacific Fisheries Commission

1st Annual Yearbook of Activities

FOREWORD:

It gives me great pleasure, as the first Chairman of the North Pacific Fisheries Commission (NPFC), to welcome the Commission to the world through its first yearbook of activities since the NPFC was established in July 2015.

The North Pacific Fisheries Commission evolved through nine years of meetings and negotiations of interested parties that wished to address the gap in formal management of a very large area of the high seas of the North Pacific Ocean. The issue to be addressed was the sustainable management of the fishery resources, and also the protection of the ecosystems in which these resources occur. Of special interest and a driving force behind this action was the growing concern amongst the Members of the United Nations members of the environmental impact that such fishing was reputed to have on the slow growing resources and ecosystems of the deep sea.

I take pride in acknowledging the commitment of these future members of the NPFC when they individually and collectively set interim and voluntary measures to reduce the pressures and impacts of deep sea bottom fishing in the proposed new Convention Area. At its 2nd official Commission meeting, shortly after the NPFC came into force on 19 July 2015, these interim measures became the base conservation and management measures for the Commission. In this first year of operations not only has the Secretariat been staffed, but the Commission has adopted seven conservation and management measures to address the fisheries exploited by its Members. This yearbook chronicles the events and activities of the first year of the Commission, and I trust you will enjoy it as much as I did when reviewing our work from 2015 to 2017.

Kenji Kagawa
Chairman
North Pacific Fisheries Commission

ACKNOWLEDGEMENT

First, ladies and gentlemen of the Members of the North Pacific Fisheries Commission – this is your book. Your support, assistance and efforts made this book as a record of the first full year of operations of NPFC. Thank you. I also wish to thank Mr. Kagawa, Chairman of the Commission for his support and patience in getting myself and the Secretariat through the first year, and I would be remiss if I did not thank all the Members for their continued support and patience in our efforts this year, Japan as host Member and host for several commission workshops and meetings, Korea for its support for Pacific Saury workshop and visits of staff, and China for hosting the Scientific meetings in Shanghai. The Chairs of the Scientific Committee, TCC, Commission meetings and the working groups, workshops and corresponding groups, a sincere thank you for your dedicated work on behalf of the Commission. I also must thank my dedicated staff for their support and diligence beyond the call of duty to bring this first year to a successful close.

Finally, we cannot leave without extending our sincere thanks to Urban Connections, first for their support during the year's meetings with the provision of Mr. Alex Meyer as an excellent Rapporteur and second, Ms. Iwata and team for their ideas, support and patience in putting together this book of our first year of memories as a Commission.

Thank you all.

Dae-Yeon Moon
Executive Secretary
North Pacific Fisheries Commission

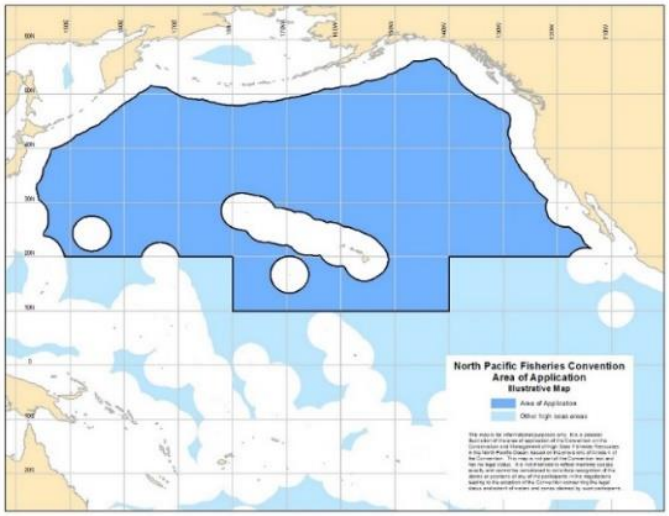
Table of Contents

North Pacific Fisheries Commission

1st Annual Yearbook of Activities

INTRODUCTION:

The *Convention on the Conservation and Management of the High Seas Fisheries Resources in the North Pacific Ocean* was adopted on 24th February 2012 and came into force 180 days after receipt of the 4th ratification on 19 July 2015. The *Objective* of the Convention is to ensure the long-term conservation and sustainable use of the fisheries resources in the Convention Area while protecting the marine ecosystems of the North Pacific Ocean in which these resources occur. The task of the Commission is to achieve the objective and to establish management regimes to ensure the conservation and sustainable use of the fisheries resources of the North Pacific Ocean and its sensitive marine biological ecosystems. At the close of 2016 fiscal year, there were seven (7) Members of the NPFC, namely: Canada, China, Japan, Republic of Korea, the Russian Federation, Chinese Taipei and United States of America, with the Republic of Vanuatu expected to join the Commission in the near future[1]. Dr. Dae-Yeon Moon was selected to lead the North Pacific Fisheries Commission (NPFC) Secretariat in September 2015.



The map provides a rough presentation of the North Pacific Fisheries Commission Convention Area. The detailed coordinates of the Convention Area are in the Convention text, Article 4.

Fisheries resources covered by the Convention include all the fish, mollusks, crustaceans and other marine species caught by fishing vessels within the Convention Area, *excluding*:

(i) Sedentary species insofar as they are subject to the sovereign rights of coastal States and indicator species of vulnerable marine ecosystems as listed in, or adopted pursuant to the NPFC Convention, including at the moment four families of cold water corals;

[1] Vanuatu joined the NPFC in June 2017.

(ii) Catadromous species;
(iii) Marine mammals, marine reptiles and seabirds; and
(iv) Other marine species already covered by pre-existing international fisheries management instruments within the area of competence of such instruments.

Currently the fish species targeted by the NPFC Members include bottom fish stocks and pelagic fish stocks as follows:

- **Fishery for Bottom Fish Stocks**

In the Northwestern Pacific Ocean, bottom trawl fisheries, bottom gillnet fisheries and bottom longline fisheries have been conducted over the Emperor seamounts by Japan, Korea and Russia. The primary target species of the bottom trawl fisheries have been North Pacific Armorhead (*Pentaceros wheeleri*), and splendid alfonsino (*Beryx splendens),* and the primary target species of the bottom gillnet fisheries have been splendid alfonsino, oreo (*Allocyttus verrucosus)* and mirror dory (*Zenopsis nebulosa).*

In the Northeastern Pacific Ocean, the seamount long-line fishery began in the 1970's. Four seamount aggregations (Eickelberg Seamounts, Warwick Seamount, Cobb Seamounts, and Brown Bear Seamounts) have been fished by Canada, via longline hook and longline trap gear. Since the inception of the fishery, the target species of both the above fishing gears has been sablefish (*Anoplopoma fimbria*)

- **Fishery for Pelagic Fish Stocks**

Pacific saury (*Cololabis saira)* has been harvested by China, Japan, Korea, Russia, Chinese Taipei and Vanuatu.

These fleets mainly use stick-held dip nets or lift nets (a similar fishing method which uses fishing lamps) to catch Pacific saury. While Japanese and Russian vessels operate mainly within their EEZs, Chinese, Korean, Chinese Taipei and Vanuatu vessels operate mainly in the high seas of the North Pacific. A preliminary stock assessment is just being completed as a prelude to establishing conservation and management measures for the sustainability of the fishery.

Besides Pacific saury, neon flying squid (*Ommastrephes bartramii*) and Japanese flying squid (*Todarodes pacificus*) have been harvested by squid jigging vessels within the Convention Area.

More recently, the chub mackerel (*Scomber japonicus*) fishery is commencing in the NPFC Convention Area in the Northwestern Pacific Ocean. As noted above, there has been a new

conservation and management measure (CMM) on chub mackerel to refrain from expansion of fishing effort until a stock assessment is carried out to determine harvest rules.

NPFC Personnel:

The personnel of the Secretariat and the Chairman are representatives of the multi-national and multi-cultural nature of the Commission. The Chairman is Kenji Kagawa of Japan, with the Executive Secretary being Dae-Yeon Moon of Korea, and the Science Manager, Aleksandr Zavolokin of Russia; Peter Flewwelling of Canada as Compliance Manager and Yuko Yoshimura-Takamiya filling the position of Executive Assistant. At the time of publication of this yearbook, NPFC had just completed staffing for a Data Coordinator, Mervin Ogawa. During this first year we have supplemented our small staff with consultancies for finance and information technology.

Period of Coverage:

As this is our first year of operations, this publication details the results of the key activities and Commission meetings held from the 1st Annual Commission Meeting in September 2015 and all Commission meetings up to and including the 2nd Annual Commission Meeting in August 2016.

In its efforts to achieve the objective of the Convention, the Commission:

a. held scientific committee meetings and workshops on the bottom fisheries, vulnerable marine ecosystems, and Pacific saury;
b. created a new Finance and Administration Committee as a subsidiary body while approving the budget for the Commission for 2016 and 2017;
c. held the first technical and compliance committee meeting resulting in the approval by the Commission of six new Conservation and Management Measures (CMM) and revision of one other CMM to manage, conserve and protect the fisheries resources and marine ecosystems of the Convention Area:
    - CMM 2016-01 On information requirements for vessel registration
    - CMM 2016-02 To establish a list of vessels presumed to have carried out IUU activities in the NPFC Convention Area
    - CMM 2016-03 On the interim transshipment procedures for the NPFC
    - CMM 2016-04 On vessels without nationality
    - CMM 2016-05 For bottom fisheries and protection of VMEs in the NW Pacific Ocean
    - CMM 2016-06 For bottom fisheries and protection of VMEs in the NE Pacific Ocean
    - CMM 2016-07 For Chub mackerel

In addition, the Secretariat represented the Commission and its members at the:

a. FAO Committee on Fisheries (COFI);
b. The Regional Secretariats' Network (RSN) meeting;
c. Worldwide Review of Bottom Fisheries in the High Seas Meeting of the FAO project on management of areas beyond national jurisdiction (ABNJ) for deep sea fisheries;
d. UN Evaluation of the implementation of the United Nations Fish Stock Agreement (UN FSA);
e. Annual Meeting of the North Pacific Anadromous Fisheries Commission (NPAFC);
f. North Pacific Marine Science Organization (PICES) 25th Annual Meeting;
g. Preparatory Conference Meetings for the development of the United Nations international, legally binding instrument (ILBI) on Biodiversity Beyond National Jurisdictions (BBNJ).

The following pages provide the final approved reports of the internal meetings held by the NPFC in its first year of formal operations in the chronological order in which the meetings were held.

NPFC

1st Commission Meeting

3 September 2015

Tokyo, Japan

Meeting Report

1st Commission Meeting

Agenda

1. Welcome and Opening Remarks

2. Membership of the Commission

3. Appointment of Chair, Vice-Chair and Rapporteur

4. Adoption of Agenda

5. Approval and Appointment of Executive Secretary

6. Report of the Preparatory Conference of NPFC
   a) Adoption of NPFC Rules
   b) Adoption of Agreement regarding Privileges and Immunities of NPFC
   c) Adoption of NPFC Budget for September 2015- March 2017

7. Recommendations from Scientific Working Group

8. Establishment of Science Committee and Technical Compliance Committee and Chairs and Vice-Chairs

9. Adoption of Conservation and Management Measures

10. Date and Place of the Next Meeting

11. Adoption of the Record of the Meeting

12. Closing Remarks

1. Welcome and Opening Remarks

The Director-General of the Fisheries Agency of Japan, Mr. Kazuo Sato, welcomed participants to the NPFC 1st Meeting of the Commission, which was convened in Tokyo, Japan on 3 September 2015. Mr. William Gibbons-Fly (United States), Chair of the Preparatory Conference (PrepCon), reflected on the achievements of participants and their work to establish the Commission over the past decade. The President of the Tokyo University of Marine Science and Technology, Dr. Toshio Takeuchi, expressed his gratitude that the NPFC Secretariat will be hosted by the university, and noted the close alignment between NPFC and university research interests.

2. Membership of the Commission

Korea reported on the status of the Convention. In accordance with Article 25 of the Convention, the Convention entered into force on 19 July 2015, 180 days after Korea received deposit of the fourth instrument of ratification, acceptance, approval or accession. The first four instruments were received from Canada, China, Japan and Russia. Korea submitted the fifth instrument of ratification on 17 June 2015. On 27 July 2015, the Depositary also received the written instrument from Chinese Taipei as provided in the Annex of the Convention. The United States informed the Commission that it is awaiting the passage of the implementing legislation necessary to ratify the Convention and hopes to complete that process soon. The Republic of Vanuatu informed the Commission that it is committed to ratifying the Convention and hopes to do so before the end of 2015.

3. Appointment of Chair, Vice-Chair and Rapporteur

In accordance with Article 5 of the Convention, Mr. Kenji Kagawa (Japan) was elected to serve as the first Chair of the Commission. Dr. Aleksei Baitaliuk (Russia) was elected to serve as the Vice-Chair. Dr. Janelle Curtis (Canada) was appointed as the meeting Rapporteur.

4. Adoption of Agenda

The draft agenda was adopted without amendments.

5. Approval and Appointment of Executive Secretary

The Commission appointed Dr. Dae-Yeon Moon (Korea) as the first Executive Secretary of NPFC. Dr. Moon expressed his gratitude to the Commission for the opportunity and thanked the other candidates who were interviewed for the position. Mr. Kagawa and Dr. Moon signed the contract for the Appointment of the Executive Secretary which was approved by the Commission (COM1/WP2).

6. Report of the Preparatory Conference of NPFC

The Chair of the PrepCon, Mr. Gibbons-Fly provided a report on the cumulative work of the PrepCon (COM1/WP3: Final Report of the PrepCon). He noted that the PrepCon successfully concluded all of the tasks identified in its workplan (included in paragraph 21 of COM1/WP3), and advanced work on other related areas.

The Commission acknowledged the leadership and work of Mr. Gibbons-Fly and the Interim Secretariat, and recognized that their efforts have contributed to the success of PrepCon and the establishment of the Commission.

a) Adoption of NPFC Rules

The Rules of Procedure (Attachment 3 of COM1/WP3), Financial Regulations (Attachment 4 of COM1/WP3), and Staff Regulations and Grievance Procedure (Attachment 5 of COM1/WP3) were adopted by consensus.

b) Adoption of Agreement regarding Privileges and Immunities of NPFC

The draft Agreement was adopted by consensus (Attachment 7 of COM1/WP3). Japan and the Interim Secretariat were encouraged to establish the new NPFC Secretariat as soon as possible. Russia, taking into account discussions at PrepCon 7, emphasized the importance of providing optimal conditions for the work of the Secretariat.

c) Adoption of NPFC Budget for September 2015- March 2017

The Interim Secretariat provided an explanation for revisions to the draft Budget for Years 1 and 2 (Attachment 6 of COM1/WP3 and COM1/WP4). The Commission adopted the Year 1 Budget (2015-2016) and a fixed annual contribution from Japan of 44,000,000 Yen. While the total amount of expenditures for Year 2 (2016-2017) was approved, certain details on appropriations and expenditures will be discussed and finalized during the next Commission meeting. An initial 50% installment of contributions based on the previous years' formula would be due on 1 April 2016.

7. Recommendations from Scientific Working Group

The Commission discussed recommendations from the SWG (Paragraph 7 of COM1/Ref1), and supported implementation of these recommendations. It was agreed that the NPFC representative to the UN Fish Stock Agreement review meetings should be the Executive Secretary or his delegate. The Commission noted that the Small Scientific Committee (SSC) on Pacific saury should take into consideration the Conservation and Management Measure for Pacific saury (Attachment 9 of COM1/WP3). Commission members also agreed that the Executive Secretary would circulate, based on consultations by correspondence with members, a draft list of priority species for final approval by the Commission in its 2016 meeting.

8. Establishment of Science Committee and Technical Compliance Committee and Chairs and Vice-Chairs

In accordance with Article 6 of the Convention, the Scientific Committee (SC) and Technical and Compliance Committee (TCC) have been established. Mr. Joji Morishita (Japan) was appointed as the interim Chair of the SC, and Mr. Gary Miller (Canada) was appointed as the interim Chair of TCC.

9. Adoption of Conservation and Management Measures

Two agreements regarding Conservation and Management Measures were adopted by the Commission: Information Requirements for Vessel Registration (Attachment 8 of COM1/WP3); and the Conservation and Management Measure for Pacific saury (Attachment 9 of COM1/WP3).

10. Date and Place of the Next Meeting

The Commission recognized the importance of ensuring a sufficient amount of time was scheduled between science-related meetings and the meeting of the Commission, and ensuring that these meetings did not overlap with the meetings of other RFMOs. The 1st Meeting of the SC and meetings of SSCs on Vulnerable Marine Ecosystems, North Pacific

armorhead and Pacific saury will be scheduled for the month of April 2016. The 1st Meeting of the TCC and the 2nd Meeting of the Commission will be held during the week of 22 August 2016. All meetings in 2016 will be held in Tokyo, Japan. The timing and location of 2017 meetings will be determined in 2016.

11. Adoption of the Record of the Meeting

The Record of the 1st meeting of the Commission was adopted at 15:00.

12. Closing Remarks

The report was adopted in its entirety.

NPFC

1st Meeting of the Small Scientific Committee on Vulnerable Marine Ecosystems

14-16 April 2016

Tokyo, Japan

Meeting Report

1st Meeting of the Small Scientific Committee on Vulnerable Marine Ecosystems

AGENDA

1. Opening of the meeting
2. Selection of Chair and Rapporteur
3. Adoption of Agenda
4. Member's research activities on VME
5. Discussion on VME Encounter Protocols
6. Review of Current Interim and Voluntary Measures of NPFC for refinement to formal Conservation and Management Measures (CMM)
7. Recommendations to 1st Session of the Scientific Committee
8. Other Matters
   - UN ABNJ Deep Seas Project, FAO VME database
9. Next meeting
10. Adoption of the Report
11. Close of the Meeting

MEETING REPORT

Agenda Item 1. Opening of the meeting

1. The 1st Meeting of the Small Scientific Committee on Vulnerable Marine Ecosystems (VMEs) took place in Tokyo, Japan and was attended by Members from Canada, China, Japan, Republic of Korea, and the Russian Federation, and a party that has not yet ratified the Convention (USA) and observers.

Agenda Item 2. Selection of Chair and Rapporteur

2. Dr. Loh-Lee Low was selected as the Chair. Mr. Peter Flewwelling was selected as Rapporteur with support provided from Japan.

Agenda Item 3. Adoption of Agenda

3. The provisional agenda was adopted without amendment.

Agenda Item 4. Members' Research Activities on VME

4. Participants made reports with respect to their research activities on VMEs. Japan submitted three documents prior to the meeting (WP01-WP03). Korea (WP05), Russia (WP06), and Canada (Inf02) submitted their documents and presentations on their activities at the meeting. Specific highlights are noted below. Canada also presented a verbal update on ongoing research related to methods for VME identification and assessment of SAIs.

5. NPFC01-2016-SSC-VME01-WP01 (Rev 2) on bycatch and encounter protocols: A summary of Japanese bycatch data and scientific surveys on VMEs on Emperor Seamounts was presented. The document including analyses of six years of bycatch data from 2010-2015, suggested the four orders of VME indicator taxa specified by Convention Text may be reduced to three orders in accordance with the revision of coral taxonomy. These would be *Antipatharia*, *Scleractinia* and *Alcyonacea* (including *Gorgonacea*). Further, Japan suggested that the move-on distance of 5 nautical miles is disproportionately large compared to the geographical scale of fishing grounds and coral colonies on the Emperor Seamounts.

6. NPFC01-2016-SSC-VME01-WP02 on cold-water corals as indicator taxa in the Emperor Seamounts area was presented by Japan with the results of association analysis on benthic taxa collected by scientific surveys, being that *Gorgonacea* and *Scleractinia* frequently co-occur with other benthic animals and therefore their potential as VME indicator taxa in the Emperor Seamounts area is appropriate.

7. NPFC01-2016-SSC-VME01-WP03 survey results on seafloor environment and prey organisms were presented by Japan. The sea floor environment and prey organism survey was conducted by R/V *Kaiyo Maru* of the Fisheries Agency in Kammu Seamount from 22 July to 14 August, 2015.

8. NPFC01-2016-SSC-VME01-WP04: The United States reported on the results of the 2014 underwater camera survey of the eastern Bering Sea slope and outer shelf that was published in http://www.afsc.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-313.pdf.

9. NPFC01-2016-SSC-VME01-WP05: Republic of Korea reported on coral bycatch of VME indicator taxa by Korean trawl fisheries in the Emperor Seamounts based on the scientific observer data for 2013-2015. With high VME bycatch frequency rate and very low

VME indicator weight, there were dominant bycatches of *Gorgonacea* and *Antipatharia* while almost no bycatch of *Alcyonacea*.

10. NPFC01-2016-SSC-VME-WP06: The Russian Federation reported on longline fishing activity in the Emperor Seamounts in 2014 and 2015 and noted that there was almost no occurrence of VME indicating taxa in bycatch.

11. The participants queried why the frequency of bycatches of indicator species were greater in gillnets than trawls; whether there was standardization in methods for weighing samples; and why there were differences in bycatch frequency rates between Japan and Korea noting that fisheries were similar. Further, it was noted that the longline fishery experienced almost no bycatch.

12. It was noted that several factors affected bycatch, including: differences in fishing areas and their topography by gear types, catchability, sea conditions for weighing operations at sea and duration from net hauling to sample weighing and differences in observer protocols.

13. The merit to further analyze the data against other VME criteria other than species association was raised.

Agenda Item 5. Discussion on VME Encounter Protocols

14. VME Encounter Protocols – Participants recalled that an Intersessional Small Science Working Group (SSWG) was formed in September 2010 to address encounters with corals in the Emperor Seamount fisheries. Five specific tasks were assigned to the SSWG. The SSWG reported to the SWG at its Juneau meeting in August 2012. The "Parties agreed that data deficiencies make it difficult to answer the five questions tasked to the SSWG by the NPFC".

15. A discussion was made on the changing purposes of encounter protocols in other RFMOs from the original intent as a precautionary measure under data-limited situations to identify and protect VMEs to becoming a safeguard for VMEs in established fishing areas and identifying VMEs in un-fished areas.

16. After discussion the SSC-VME-01 developed the elements of an encounter protocol from existing interim and voluntary measures and identified attributes of these elements that could be considered for future refinement. The list of the identified elements for an encounter protocol is attached as Annex A.

17. The SSC-VME01 agreed to focus their initial efforts on the four key elements of existing NPFC encounter protocols:

a. VME indicator taxa;
b. encounter thresholds;
c. move-on distance;
d. reporting requirements.

18. On the VME indicator taxa, the following wording was considered and endorsed to the Scientific Committee (SC).

> NPFC recognizes four orders of corals as indicators of potential VMEs: *Alcyonacea, Antipatharia, Gorgonacea, Scleractinia* and the potential for addition of new taxa if

research so indicates.

19. On the encounter threshold the following was considered for endorsement to the SC:

There are not sufficient scientific data nor compelling reason to change from the 50 kg trigger point at this time. Participants agree that the 50 kg is so high that the threshold would rarely be triggered, however, it is recommended to SC that the 50 kg trigger level remain until SSC VME01 can further analyze existing and future data to enable the Commission to make a more informed decision for change based on statistical analysis of scientific data. There was a proposal that if the 50 kg level were reached in one haul it should result in an immediate temporary closure of the area until further analysis or survey of the area could be conducted. Since there are areas adjacent to the traditional fishing grounds where dense aggregations of cold-water corals are observed, exceeding the 50 kg threshold would signify the presence of VMEs and continued fishing in the area could constitute SAIs. The number of issues surrounding such a closure: size of area, time of closure, processes for examination of the area, how to re-open need consideration with the advice from the SC. Members discussed the value of analyzing bycatch data as a first step towards potentially refining encounter thresholds that reflect the ecology of the areas fished and gear specific differences in selectivity.

20. On the 'move-on' distance rule there was no agreement on the distance for the 'move on' rule, however it was generally agreed that 5 nm created significant problems for fishers operating in many areas. The proposal of 2 nm may also create similar hardships in some traditional fishing areas.

21. The SSC-VME-01 did not have sufficient data to determine an exact 'move-on' distance, however, experience has been shown that if we apply the 5 nm rule may require the vessel to move out of the fishing grounds. Moreover, the spatial scale over which benthic communities are structured potentially occupy smaller areas. It is also noted that other RFMOs (NAFO, SEAFO, NEAFC) have encountered similar experiences and have set their move-on rule to 2 nm. SSC-VME-01 proposes that the 'move-on' distance rule for the VME encounter protocol be changed from 5 nm to 2 nm.

22. On the Reporting Requirements point, it was noted that there are already specific and standardized data reporting requirements in the Interim Measures for scientific observers carried on vessels operating in the NPFC Convention Area fishing for bottom species of the Commission.

Agenda Item 6. Review of Current Interim and Voluntary Measures of NPFC for refinement to formal Conservation and Management Measures (CMM)

23. There was a discussion on interim measures that could be made into formal Conservation and Management Measures of NPFC. The SSC-VME-01 could not scrutinize the draft CMM prepared by the Secretary (NPFC01-2016-SSC-NPA01WP03a) due to lack of time for studying the document, instead Participants discussed about the elements of current interim and voluntary measures related to VMEs. It was noted that some of the issues have already been discussed under Agenda Item 5:

a. VME indicator taxa;
b. encounter thresholds;
c. move-on distance;
d. reporting requirements.

24. The SSC did not examine the scientific merits on the following:

a. Closure of the area to fishing north of 45 °N latitude under Interim Measures for the NW Pacific;
b. the prohibition of fishing below 1500 m;
c. the closures of C-H Seamount and part of the southeastern slope of Koko Seamount in the Voluntary Measures for NW Pacific.

There would be no change as there was no new data to justify any modification so this will be discussed at SC.

25. Under the Interim Measures for the NE Pacific Ocean, it was recommended that interim measures for the NE Pacific Ocean would be updated with minor editorial changes (SWG to SC) and circulated for consideration by SC.

26. It was agreed by the Participants that there was no scientific rationale or data to change the Exploratory Fishery Protocol in the North Pacific Ocean at this time within the SSC VME01.

Agenda Item 7. Recommendations to the 1st Session of the Scientific Committee

27. The SSC VME01 recommends the following to SC:

a. VME taxa – no change, VME indicators remain as *Alcyonacea, Antipatharia, Gorgonacea, Scleractinia*
b. Encounter threshold - no change, the threshold remains at 50 kg per haul.
c. Move-on rule – a change from 5 nm to 2 nm.
d. Reporting Requirements – no change.
e. Voluntary Measures for NW Pacific Ocean – no change
f. Interim Measures for the NE Pacific Ocean – refers the Measures to the SC for consideration
g. Exploratory Fishery Protocol in the North Pacific Ocean – no change

Agenda Item 8. Other Matters

28. Canada gave an informal presentation on a proposed community modelling approach to map the distributions of benthic communities that have a potential to be associated with VMEs (NPFC01-2016-SSC-VME01-Inf02).

29. The FAO ABNJ Deep Sea Project presented an update of the 5-year Project noting that the project has four major areas of work: 1: Strengthening policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas; 2: Reducing adverse impacts on VMEs and enhanced conservation and management of components of EBSAs; 3: Improving planning and adaptive management for deep sea fisheries in ABNJ; and 4: Development and testing of methods for area-based planning. The ABNJ Deep Seas project brings together a range of partners working on deep-sea fisheries and conservation issues in the ABNJ globally.

30. The FAO also demonstrated the VME Portal and Data Base. The VME Portal provides general information on VMEs, including sections for relevant publications and international instruments, links to VME-related tools and terminology, and the VME Data Base containing information on VME-related measures in ABNJ for each regional fisheries body. The database and website serve as an information sharing platform as well as an awareness building tool (www.fao.org/in-action/vulnerable-marineecosystems/en/).

31. The FAO representative encouraged NPFC to engage in the efforts of the FAO ABNJ.

Agenda Item 9. Next Meeting

32. The next meeting of the SSC VME shall be deferred to SC.

Agenda Item 10. Adoption of the Report

33. The record of the 1st Meeting of the SSC VME was adopted by consensus.

Agenda Item 11. Close of the Meeting

34. The SSC VME meeting was closed at 1650 hrs 16 April 2016.

35. The Participants thanked the Chair for his leadership in guiding us at this meeting.

Annexes:

Annex A - NPFC Encounter Protocols

Annex A

LIST OF THE IDENTIFIED ELEMENTS FOR AN ENCOUNTER PROTOCOL

SSC VME Meeting
14 April 2016

1. The purpose of this document is three-fold:

- Summarize and describe the key elements of encounter protocols that are presently included as part of NPFC's interim and voluntary measures, and proposed for formal conservation and management measures (CMM);
- Identify other elements of encounter protocols that merit further analysis and discussion to improve the effectiveness of encounter protocols;
- To document and evaluate progress toward early identification of potential VMEs and effective responses that lead to conservation and management of confirmed VMEs.

2. Guiding principles for design and application of encounter protocols in NPFC Convention Area:

- encounter protocols should be designed to address specific NPFC objectives;
- encounter protocols should reflect the scale and type of fishing activity that produced the potential encounter;
- encounter protocols should consider the cumulative effect of encounters by different vessels or fleets over time.

3. Purposes of NPFC encounter protocols

The purposes of encounter protocols in NPFC Convention Area include:

- Ensuring early detection and protection of potential VMEs within an existing fishing area;
- Ensuring early detection and protection of potential VME within an unfished area;
- Documenting information on known occurrences of VME indicators within the Convention Area.

4. Elements of existing NPFC encounter protocols

Elements of encounter protocols that are presently included within interim measures and draft CMM include for existing fishing grounds:

- <u>VME indicator taxa:</u>
  - NPFC recognizes four orders of corals as indicators of potential VMEs: *Alcyonacea, Antipatharia, Gorgonacea, Scleractinia.*

- <u>Encounter thresholds:</u>
  - In NW Pacific Ocean, Republic of Korea and Japan voluntarily cease fishing and move to a new location when more than 50 kg of live cold water corals are encountered in one haul.

- <u>Move-on distance:</u>
  - In NW Pacific Ocean, when the encounter threshold is exceeded in one haul, NPFC requires the vessel to cease fishing and move a minimum of 5 nm from the encounter.

- <u>Reporting requirements:</u>
  - Following an encounter that exceeds 50 kg in one haul, the location and the taxa in

question, shall be reported to the Secretariat, who shall notify the other members of the Commission so that appropriate measures can be adopted in respect of the relevant site.

- There are no specific elements of an encounter protocol for areas subject to exploratory fishing in the draft CMM, but the Exploratory fishery protocol requires that a mitigation plan be developed to prevent SAIs to VMEs that may be encountered during the fishery.

5. Other elements of encounter protocols needed to improve implementation and effectiveness

- Guidance on the direction to move (e.g. up/down slope; along depth contour);
- What action to take following moving-on, in terms of:
  - Process by which data are used to trigger a response;
  - Timing and duration of any closure; o Area of closure (including shape);
  - Evidence needed to confirm presence or absence of VME in area;
  - When an area could be re-opened (e.g. confirming absence of VME in the area);
  - The establishment and use of a database of encounters.

6. Research and analyses recommended to further refine encounter protocols

- Merits of considering other taxa (e.g. structure-forming sponges), topographical, geographical and geological features specified by FAO DSF Guidelines (e.g. seeps, hydrothermal vents, canyons), as in other RFMOs;
- Merits of taxon-specific encounter thresholds and reporting (e.g. at order level);
- Merits of framework for evaluating the effectiveness of encounter protocols;
- Merits of tiered approach with different encounter protocols associated with different thresholds (e.g. CCAMLR, smaller threshold would indicator risk of VME and trigger reporting requirements, larger threshold would trigger reporting requirements and closure);
- Merits of gear-specific thresholds to reflect differences in catchability;
- Merits of gear-specific move-on distances to reflect type of gear;
- Different reporting requirements for different catches;
- Merits of tiered approach to reporting bycatch of VME indicator taxa;
- Merits of different encounter protocols for existing and new fishing areas.

NPFC

1st Meeting of the Small Scientific Committee on North Pacific Armorhead

18-19 April 2016

Tokyo, Japan

Meeting Report

1st Meeting of the Small Scientific Committee on North Pacific Armorhead

AGENDA

1. Opening of the meeting
2. Selection of Chair and Rapporteur
3. Adoption of Agenda
4. Review of fisheries through presentation of Annual Reports
5. Progress in the development of stock assessments and adaptive management approach for North Pacific Armorhead
6. Collection and integration of data and information from fisheries
7. Discussion on current Interim Measures and Voluntary Measures for Sustainable Use and Recovery of North Pacific Armorhead
8. Recommendations to 1st session of the Scientific Committee
9. Other Matters
   - UN Review of Bottom Fisheries
10. Next meeting
11. Adoption of the Report
12. Close of the Meeting

MEETING REPORT

Agenda Item 1. Opening of Meeting

1. The 1st Meeting of the Small Scientific Committee on North Pacific Armorhead (SSC NPA01) took place in Tokyo, Japan and was attended by Members from China, Japan, Republic of Korea, and the Russian Federation, and a party that has not yet ratified the Convention (United States of America) and observers.

2. There was a one-minute silence in memory of those families affected by the recent earthquakes in southern Japan.

Agenda Item 2. Selection of Chair and Rapporteur

3. Dr. Taro Ichii was selected as the Chair. Mr. Peter Flewwelling was selected as Rapporteur with support provided from Japan.

Agenda Item 3. Adoption of Agenda

4. The provisional agenda was adopted without amendment. The Chair reviewed the indicative schedule and noted his proposed approach for the informal industry-NPFC Participants meeting.

Agenda Item 4. Review of fisheries through presentation of Annual Reports

5. Participants made reports with respect to their bottom fisheries in their Annual Reports with particular reference to North Pacific armorhead (*Pentaceros wheeleri*). Japan, Republic of Korea, and Russian Federation provided short discussions on the highlights of their bottom fisheries referring to NPFC01-2016-AR-Annual Summary Table on Bottom Fisheries. USA noted it has ceased fishing for several years to rebuild the stock in the Emperor Seamounts area. Current experience for 2016 did not show high catches.

Agenda Item 5. Progress in the development of stock assessments and adaptive management approach for North Pacific Armorhead

6. Japan presented NPFC01-2016-SSC-NPA01-WP01. Japan calculated past stock and catch dynamics for NPA, from 2005 – 2015, under management rules of fixed catch limit (CL) and adaptive management (AM) to examine the effectiveness of AM schemes for NPA using the Japanese fishery as an example of the management target. The calculations included revised CL based on stock status within the fishing season. Characteristics of the four management rules tested included:

   Rule 1）Fixed CL15,000 mt management which proved less effective in stock recovery

   Rule 2）Fixed CL 5,200 mt management which proved less effective in stock recovery and rational use because of over exploitation during low stock level periods and under exploitation in large recruitment years

   Rule 3) AM starting with CL 2,000 mt (revised up to 5,200 or 15,000 mt according to recruitment level – May, June and July) which was effective in both stock recovery and maintaining the harvest rate at moderate levels

   Rule 4） AM with starting CL 15,000 mt which found that delays in CL revision could have large impacts on stock dynamics and harvest rates.

7. Results suggested that:

a. AM is more effective for increasing and stabilizing NPA stock and catch than fixed CL management,
b. AM starting with a low CL level is robust over uncertainties in NPA life history and fisheries, and
c. AM starting with a high CL level is difficult to implement because stock dynamics and harvest rates are highly dependent on the timing of CL revision.

It was noted that there were merits and challenges with each scenario and these were presented to the meeting.

8. Japan presented NPFC01-2016-SSC-NPA01-WP02 which estimated the recruitment period of NPA based on the temporal variation in CPUE and fatness index (FI) from 2010 to 2014. It is noted that CPUE and FI can provide useful inputs to detect timing and level/trend of recruitment. Findings included:
    a. Recruitment of this species probably started in between January and March, because the percentage of higher FI individuals (FI $\geq$ 0.3) that represent new recruit increased in these months.
    b. Nominal CPUEs increased between February and April in accordance with the rise of the percentage of higher FI individuals in large recruitment years.

    These results suggest the possibility for detection of strong recruitment based on the trends in nominal CPUE from January to April.

9. Generally, Participants noted that NPFC01-2016-SSC-NPA01-WP01 was a good exercise in the development of stock assessments and adaptive management approach for North Pacific Armorhead. It was also noted that in a data poor fishery, such as NPA, many challenges would arise that could be addressed as more data became available. Some of the challenges raised included: the merits of increasing the number of scenarios; inclusion of biological data as it became available, e.g., recruitment relationship between spawning biomass and stock size; environmental factors; changing harvesting behavior or strategies of fishermen; and determining how to address management issues such as varying control of the opening and closing, or adjustment of the fishery in a multi-national perspective. These issues would be addressed as such data became available to revise the current model.

10. Comments from Participants on NPFC01-2016-SSC-NPA01-WP02 noted the difficulties in comparing CPUE and Fatness Indices; the lack of data since the USA and earlier Japanese studies on the subject which may not have included ecological factors, and the need to update some of the reference studies. It was noted that Japanese scientific observer data are available since 2009 and commercial catch and effort from the 1990s enable further analysis of the proposed model against data from years of high recruitment to test its validity.

11. Japan referenced two information papers: NPFC01-2016-SSC-NPA01-Inf01a,b - History, Biology NPA and NPFC01-2016-SSC-NPA01-Inf02a,b- Prey Use , reprints of journal articles for background information on biology and ecology of NPA.

Agenda Item 6. Collection and integration of data and information from fisheries

12. SSC NPA sought inputs on the collection and integration of data and information from the fisheries into a management scheme, with the following resultant suggestions:
    a. Investigate other models for the management of NPA, however, in the interim;
    b. Develop a harvest control rule for the Adaptive Management Strategy for NPA to enable NPFC to set catch limits that reflect changes in recruitment levels each year;
    c. Such development would require refinement of individual Participant data collection requirements to address simple catch and effort data with an agreement on a standard for a common unit to record effort; and
    d. Consider methods to ensure enough speed and interval (e.g., every ten days) of reporting required for implementing the Adaptive Management Strategy.

13. An informal meeting was held with fishermen from Japan, scientists and managers to gain further input into the issues noted in paragraph 12. The summary of the informal meeting is attached as Annex A. Key issues raised by industry included:
    a. Initial catch limit for AM strategy is critical for business planning;
    b. Mechanism for timely revision of catch limit to catch up with the possible recruitment;
    c. Equitability of AM scheme across all Members is needed to meet the 'fairness' principle and make the scheme acceptable to industry.

    Analysis of past and future data on relationships between NPA recruitment and occurrence of juvenile NPA observed by the neon flying squid fishery would assist in pre-season stock assessments.

Agenda Item 7. Discussion on current Interim Measures and Voluntary Measures for Sustainable Use and Recovery of North Pacific Armorhead

14. The Secretariat, in consultation with Japan, prepared a draft conservation and management measure for the Northwestern Pacific Ocean (NPFC01-2016-SSC-NPA01-WP03a) in an attempt to assist Participants in reviewing current interim and voluntary measures for this area and move them forward towards a more formal management mechanism, a conservation management measure(s) (CMM) for endorsement to the Scientific Committee (SC) and adoption by the Commission, and final submission to the UNGA meeting in November 2016.

15. SSC NPA addressed Paragraph 4 of the proposed CMM focusing on the scientific aspects of the interim measures. The following were proposed under Paragraph 4:
    a. Paragraph 4 A now read:

        Limit fishing effort in bottom fisheries in the western part of the Convention Area to a level agreed in February 2007 in terms of number of fishing vessels and other parameters which reflect the level of fishing effort, fishing capacity or potential impacts on marine ecosystems.
    b. Para 4 B, C, D, E, and F remain unchanged.
    c. Para 4 G now read:

        C-H seamount is closed for conservation of fish stocks. Part of the southeastern slope of Koko seamount is closed precautionary for potential VME conservation. Fishing in these areas requires exploratory fishery protocol

d. Para 4 H remain unchanged.
e. Para 4 I now read:
   Bottom fisheries closure from November to December.
f. Para 4 J remain unchanged.

Agenda 8. Recommendations to 1st Session of the Scientific Committee

16. The SSC NPA recommends the following to SC for endorsement to the 2st Annual Session of the Commission or advice:
    a. Although NPFC continues to investigate various management strategies, in the interim, SSC NPA recommends it develop the Adaptive Management approach for NPA and refine data collection schemes accordingly;
    b. Under the Paragraph 4 - Measures of the proposed CMM on Bottom Fisheries – the following paragraphs be changed:
        i. Paragraph 4 A – Limit Fishing effort in bottom fisheries in the western part of the Convention Area to a level agreed in February 2007 in terms of number of fishing vessels and other parameters which reflect the level of fishing effort, fishing capacity or potential impacts on marine ecosystems.
        ii. Paragraph 4 G - C-H seamount is closed for conservation of fish stocks. Part of the southeastern slope of Koko seamount is closed precautionary for potential VME conservation. Fishing in these areas requires exploratory fishery protocol
        iii. Paragraph 4 I – Bottom fisheries closure from November to December.

    All other clauses under paragraph 4 remain unchanged.

17. China suggested that such changes should not be made to the proposed CMM revised from the interim measures until conclusions based on best scientific information available would be reached by consensus.

Agenda 9. Other Matters

18. The Secretariat updated the meeting on the status of the NPFC report to the UN noting that an interim report was forwarded on 2 March for review in August of 2016.

Agenda 10. Next Meeting

19. The venue and timing of the next meeting of SSC NPA is deferred to SC.

Agenda 11. Adoption of the report

20. The Report of the SSC NPA01 was adopted by consensus on 19 April 2016.

Agenda 12. Close of Meeting

21. The meeting closed at 1754 hrs. on 19 April 2016.

22. The Participants thanked the Chair for his leadership and guidance during the meeting.

Annexes

Annex A Summary of the informal discussions with fishers on adaptive management and other management strategies for NPA

Annex A

SUMMARY OF THE INFORMAL DISCUSSIONS WITH FISHERS ON ADAPTIVE MANAGEMENT AND OTHER MANAGEMENT STRATEGIES FOR NPA

An informal meeting was held with scientist, managers and Japanese fishermen on 19 April 2016 to exchange information and views about the management of NPA with particular reference to the adaptive management (AM) strategy. Main points of the discussion are summarized below. It should be noted that this summary does not reflect the opinion of all Members and Parties, but represents personal views of the participants.

1. Points raised by Fishermen on the management of NPA

a. General views on fishery management

Fishermen expressed their willingness to have an appropriate stock management regime that will ensure long-term sustainable use of fish stocks in the Emperor Seamounts area. They noted such management regime should be based upon the common understanding of the shared utilization of fish stocks among multiple fleets and fishing parties.

Fishermen raised important elements for the management of fishery and fish stocks:

- o Incorporation and reflection of the opinions of fisherman in management.
- o Transparency and equitability of fishery management among fishing fleets and Parties;
- o Consideration of sustainability of fishery that ensure economic profitability.
- o Freezing of the number of fishing vessels as noted in the interim measures until the NPA stock is rebuilt.
- o Consideration of other factors that may cause the decline of the NPA stock besides overexploitation by fishery (e.g., environmental change).

b. Comments on adaptive management

Fishermen generally showed positive views for the consideration of AM, but they also expressed concern about catch level (CL) setting, timing and procedures for CL revision, and impacts on economic aspects of the industry.

- o The starting level of CL and its revision protocols have the greatest impacts on fishing operations. Notification of the initial CL gives fishermen the opportunity to prepare.
- o The CL should be large enough to ensure the profitability of individual fishing vessels. In this respect, an AM rule starting with medium CL level may be helpful to fishers.
- o Measures to allocate the CL to individual vessels should be considered for preventing excessive competition among fishers.

- Early determination and notification of the initial CL gives opportunities for the fishing industry to construct business plans for maximizing market values of the NPA products.

- Revision of the CL needs to be conducted rapidly to minimize the delay and waste of time in fishing operations in years with large recruitment.

Pros and cons and concerns about the four examples of fixed CL and AM rules were summarized in Table 1 from the perspective of scientists. This table was distributed to Participants.

c. Questions and comments on the biology of NPA

Based on their experience at sea, fishermen provided several questions and comments on the biology of NPA.

- Fishermen suggested the possible relationship between the observation of juvenile NPA aggregating to electric lights of neon flying squid jigging vessels in the western North Pacific in summer and subsequent large recruitment two years after the observation. Scientists discussed about the possibility of pre-season assessment of NPA recruitment size including acoustic surveys and analyses of past and future data collected by squid fisheries.
- Fishermen asked a question about the relationship between NPA recruitment and oceanic environment and the possibility of recruitment prediction in the future. Scientists explained the difficulty in predicting recruitment levels based upon the spawning stock biomass and the available oceanographic data although some studies have suggested the possible relationship between NPA recruitment and environmental index such as PDO (Pacific Decadal Oscillation).
- Fishermen also asked about the target level of the biomass of spawners under AM strategy for NPA. A scientist noted the difficulty in setting the target level of the biomass of spawners as a management objective for rebuilding the NPA stock, albeit setting of the management objective among stakeholders is the key component of the AM that implement a recursive "Plan-Do-Monitoring" cycle in course of the fishing operations.

2. Comments raised by managers:

- AM should be adopted by NPFC and thus applied to all NPFC members.
- Assuming TAC revision procedure follows analyzing catch data in the beginning of the season and issue the revised TAC according to an adopted rule, one concern is that normal NPFC reporting and decision making procedures (e.g. reporting to SC and the SC sends its agreed recommendation to the Commission for its decision) may not quick enough to action the revision during the same season. It would be necessary to develop a new decision mechanism. One idea would be to give authorization to issue the revised TAC to the Executive Secretary.

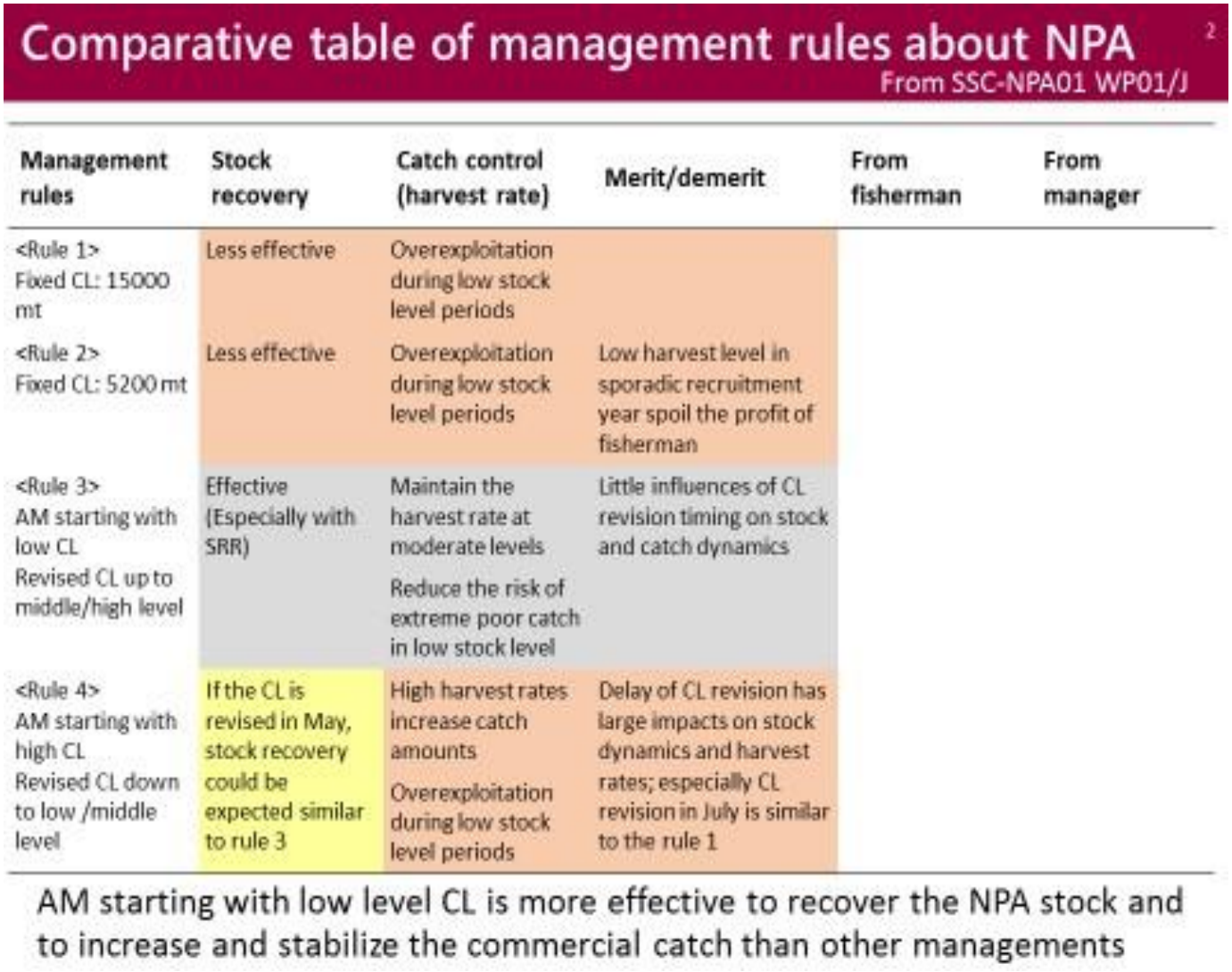


Table 1. Pros and cons and concerns about the four examples of fixed CL and AM rules from the perspectives of scientists

NPFC

1st Meeting of the Small Scientific Committee on Pacific Saury

20-22 April 2016

Tokyo, Japan

Meeting Report

1st Meeting of the Small Scientific Committee on Pacific Saury

AGENDA

1. Opening of the meeting
2. Selection of Chair and Rapporteur
3. Adoption of Agenda
4. Review of Pacific saury fisheries through presentation of Annual Reports
5. Progress in Stock Assessment for Pacific saury
6. Ways to improve reporting and information collection from fisheries
7. Recommendations to the 1st Session of the Scientific Committee
8. Other Matters
9. Next Meeting
10. Adoption of the Report
11. Close of the Meeting

MEETING REPORT

Agenda Item 1. Opening of Meeting

1. The 1st Meeting of the Small Scientific Committee on Pacific Saury (PS) took place in Tokyo, Japan and was attended by Members from China, Japan, Republic of Korea, the Russian Federation, Chinese Taipei, and a party that has not yet ratified the Convention (United States of America) and observers.

Agenda Item 2. Selection of Chair and Rapporteur

2. Dr. Toshihide Iwasaki was selected as the Chair. Mr. Peter Flewwelling was selected as Rapporteur with support provided from Japan.

Agenda Item 3. Adoption of Agenda

3. The provisional agenda was adopted with the amendment to delete Agenda Item 6 and merge it with Agenda Item 8 and include 'Pacific saury' in the title of Agenda 4.

Agenda Item 4. Review of Pacific saury fisheries through presentation of Annual Reports

4. Participants made reports with respect to their Pacific saury fisheries in their annual reports. China, Japan, Republic of Korea, Russian Federation and Chinese Taipei and observers provided short discussions on the highlights of their Pacific saury fisheries. Total catch amount of Pacific saury in 2015 was less than 60% of that in 2014.

5. The reference document for the discussions including the most recent data on catches, areas and vessels active in the Pacific saury fisheries for the NW Pacific Ocean was the summary tables prepared by the Secretariat (NPFC01-2016-AR Annual Summary Table-P Saury).

6. Russia clarified the number of vessels engaged in the fishery for Pacific saury in national waters and the Convention Area (CA) in 2015. A total of 45 fishing vessels include: 39 vessels in national waters; of these, 9 vessels also fished in the Convention Area, which traditionally crossed the Convention Area border from time to time. In addition, 6 vessels fished exclusively in the Convention Area, which made a total number of 45 vessels fishing for Pacific saury in 2015.

7. China confirmed that all the Chinese vessels fishing for Pacific saury fished only in the Convention Area.

8. Chinese Taipei clarified that in 2015, catches were only taken in the CA with 90 vessels. Before 2015, some fishing vessels conducted fishing activities in Russian waters by

fishery cooperation in some particular years. Chinese Taipei revised the catch data and number of vessels separately in the CA and national waters.

9. The Republic of Korea explained the number of vessels conducted for Pacific saury in the CA was 13, including 12 vessels in the EEZ of Russia in 2015.

10. Russia suggested to improve the table of reported catches and vessels fishing for Pacific saury and leave two major columns in the table: total catch by a Member (including catch in the CA, catch in national waters of the Member and catch in national waters of another Member) and catch in the CA.

11. Korea indicated that one of the two columns suggested by Russia should be limited to the catch in national waters adjacent to the CA.

12. Vanuatu noted that in 2015, 4 vessels fished in the NPFC Convention Area with catches being 6,600 mt.

13. SSC PS01 recommended to SC that the catch data presented in the annual report be separated into two columns for each Member – one being total catch taken by the Member (including catch in the CA, catch in national waters of the Member and catch in national waters of another Member) and the second column to include that portion taken in the Convention Area (CA). Total catch of Korea will not include catch in Korean national waters. The fishing days and numbers of vessels by area were also to be split accordingly, if possible.

Agenda Item 5. Progress in Stock Assessment for Pacific saury

14. The Chair noted NPFC01-2016-SSC-PS01-Inf01- *Information For Assessment Of Pacific Saury* which highlighted the historical biomass, range and seasonality of the Pacific saury fisheries for China, Japan, Korea, Chinese Taipei and Russia for the benefit of the SSC PS01 Participants.

15. Japan presented NPFC01-2016-SSC-PS01-WP01 and WP03, its stock assessment by the Japan Fisheries Research and Education Agency (FRA) for 2015 which used the swept area method based on surface-trawling research cruise data during 2003 - 2015 and stick-held dip net commercial fishery data and standardized CPUE during 1980 - 2014 to estimate the current population dynamic parameters and the acceptable biological catch (ABC) for 2016 fishing year (i.e., July 2016 to June 2017). The assessment indicated that it would be appropriate to maintain current SSB (920,000 mt in the end of 2015

fishing year). Therefore, the ABC estimated for 2016 was 363,000 mt, that is, 92% of ABC for the previous year. Key point noted was the decreasing trend in the stock.

16. Discussions on the Japanese assessment brought out possible issues associated with the survey design, uncertainty associated with the population dynamics estimates using the swept area method, and possible improvement for taking into consideration for future estimation, e.g., exploring model-based estimation approach versus current design-based estimation approach; the differing conclusion on the stock status using different time scales/ranges; possible use of alternative stock assessment models, e.g., production model and age/size structured models); and other factors that might influence the quality of this assessment. FAO suggested the use of all methods might enhance the results.

17. Chinese Taipei provided a paper (NPFC0-2016-SSC-PS01-WP02a) and presentation (NPFC01-2016-SSC-PS01-WP02b Rev 1) on the potential to standardize CPUE in the NW Pacific Ocean. Chinese Taipei's catch represents approximately 38% of the total catches in the NW Pacific Ocean over the past 5 years. Chinese Taipei used a generalized additive model (GAM) to standardize CPUE using catch and effort data, collected from 2001–2014, from the Chinese Taipei's Pacific saury fishery. The variables in the model include year, month, sea water temperature, area, and vessel size. The standardized CPUE showed a moderate increasing trend from 2001 to 2012, and a sharp increase from 2012 to 2014. As the GAM model appeared robust in setting a standard, Chinese Taipei recommended:
    a. incorporating CPUE data from all major Pacific saury fishing fisheries into models,
    b. developing a more inclusive model and/or method for CPUE standardization, and
    c. the continued collection of long term data.

    Discussions revealed the possible factors influencing CPUE standardizing issue and the complexities of CPUE standardization and the agreement with Chinese Taipei on the need for further studies. Possible causes for apparent differences between the Japanese standardized CPUE and Chinese Taipei standardized CPUE were discussed.

18. Russia presented information on stock assessment for Pacific saury in Russian and adjacent waters in the Northwestern Pacific Ocean (NPFC01-2016-SSC-PS01WP04). A notable decrease in annual catches, CPUE values and density distribution index were observed, which indicated recent negative trend in Pacific saury stock. Russia informed on approaches towards standardizations of CPUE data using Generalized Linear Models (GLM) and pointed out notable concordance of standardized CPUE values provided by Russia and Japan. With respect to selecting optimal harvest control rules (HCR), Russia used data limited model (DLM) tool package to assess the total allowable catch (TAC)

under data limited conditions for migrating stocks, and among a variety of models suggested depletion corrected average catch (DCAC_40), which produced minimal risks of overfishing and an estimated mean TAC value for Pacific saury of about 340,000 mt. Calculations of Pacific saury biomass depletion, based upon GLM applied to Japanese biomass assessments, suggested that the average annual decrease in Pacific saury biomass during 2003-2014 was about 250,000 mt. Russia also pointed out that, based upon the existing data on catches, CPUE and estimated biomass, possible change in the observed trends for these values might have happened in 2009-2010. Participants discussed possible issues associated with this approach and agreed on prospective of further exploring the usefulness of the suggested approaches for stock assessment of Pacific saury.

19. The SSC PS01 agreed that it should discuss a two-step stock assessment, that is, provisional assessment toward Scientific Committee in 2017 using available data followed by an in-depth assessment including desirable data to be collected in the future and model development and evaluation.

20. SSC PS01 made a table of available data and parameters (Annex A). SSC PS01 agreed that to expedite and make more effective the process of stock assessment for Pacific saury, Members propose to the SC the establishment of a working group. SSC PS01 collectively set tasking and identified data sets to be used for this recommendation to SC, as further detailed in Agenda Item 7.

Agenda Item 6. Ways to improve reporting and information collection from fisheries

21. In order to improve stock assessment procedures for pelagic fish stocks, the SWG of PrepCon recognized that there is a need to improve reporting and information collection regarding all fisheries (Report of SWG 13). SSC PS01 agreed that the collection of fish size composition was necessary to support stock assessment and other analyses, but the issue of the detail of size data and the format for reporting such data to the Commission needs to be clarified.

Agenda Item 7. Recommendations to the 1st Session of the Scientific Committee

22. SSC PS01 endorsed the following recommendations to the SC for consideration and action:
    a. catch data presented in the annual report be separated into two columns for each Member – one being total catch taken by the Member (including catch in the CA, catch in national waters of the Member and catch in national waters of another Member) and the second column to include that portion taken in the Convention Area (CA). Total catch of Korea will not include catch in Korean national waters.

The fishing days and numbers of vessels by area were also to be split accordingly, if possible;

b. To meet the requirement to complete a stock assessment of Pacific saury in 2017 the SSC PS01 recommended the following action:
    i. establish a technical working group to work intersessionally and through a workshop to develop the Pacific saury stock assessment under the leadership of Mitsuo Sakai, with membership including:
        1. China (Siquan Tian/Yong Chen),
        2. Russia (Vladimir Kulik/ Oleg Katugin),
        3. Korea (Jaebong Lee/Eunjung Kim),
        4. Japan (Satoshi Suyama/Toshihide Kitakado), and
        5. Chinese Taipei (Wen-Bin Huang/Chih-hao Hsieh).
    ii. The Terms of Reference for this working group are attached as Annex B
    iii. The workshop is proposed to be held in December 2016 or January 2017
    iv. Korea has offered to host the workshop
    v. Workshop budget to be supported by NPFC
    vi. Tasking of the workshop includes:
        1. Review report of Pacific saury-stock assessment working group activity
        2. Finalize CPUE standardization
        3. Finalize specification (base cases as well as scenarios for sensitivity analyses) of stock assessment, *inter alia* for (Bayesian) age-aggregated production models
        4. Conduct stock assessment to:
            - estimate population dynamics
            - determine biological reference points (e.g. with respect to maximum sustainable yield [MSY] or depletion level)
            - conduct risk analyses based on different harvest levels
            - specify environmental data to be included.
        5. Discuss how to present the stock assessment results for SC in 2017.
        6. Other issues (e.g. alternative models).
    vii. Data sets to be used
        1. Time series of fishery-dependent biomass indices, standardized CPUE (up to 2015)
        2. Time series of fishery-independent biomass index (up to 2015).
        3. Time series of catch (up to 2015).

Agenda Item 8. Other Matters

23. There were no other matters for discussion.

Agenda Item 9. Next Meeting

24. The timing and venue of the next meeting of the SSC PS is deferred to the SC.

Agenda Item 10. Adoption of the Report

25. The Report of the SSC PS01 was adopted by consensus on 22 April 2016.

Agenda Item 11. Close of Meeting

26. The meeting closed at 15:42 hrs. on 22 April 2016.

27. The Participants thanked the Chair for his leadership and guidance during the meeting.

Annexes

Annex A - NPFC Pacific Saury Data Availability (All Members)
Annex B - Terms of Reference for the Pacific Saury Stock Assessment Working Group

Annex A

NPFC Pacific Saury Data Availability (All Members)

Data/ parameter	China		Chinese Taipei		Korea		Japan		Russia				
Fishery-dependent information													
Catch (monthly/annual)	YES	2012-2015	YES	1977-2015	YES	1985-2015	YES	1950-2015 (m)	YES	1960-2015			
Number of vessel	YES	2012-2015	YES	1977-2015	YES	1985-2015	YES	1980-2015	YES	1960-2015			
Number of vessel by size class	YES	2012-2015	YES	2001-2015	YES	1985-2015	YES	1980-2015	YES	1960-2015			
Daily catch			YES	2001-2015	YES	1985-2015	YES	1980-2015	YES	1970-2015			
Catch/haul (net)			YES	2003-2015	YES	1985-2015	YES	1980-2015	YES	1970-2000	catch/n	1960-	catch/day
Fishing vessel position	YES	2012-2015	YES	2001-2015	YES	1985-2015	YES	1980-2015	YES	1960-2015			
Temperature at fishing sites			YES	2001-2015	YES	1985-2015	YES	1980-2015	YES	1970-2015			
Number of operated days	YES	2012-2015	YES	1994-2015	YES	1985-2015	YES	1980-2015	YES	1970-2015			
Number of operated nets (haul)			YES	2003-2015	YES	2013-2015	YES	1980-2015	YES	1970-2015			
Estimated size composition of catch			YES	2006-2015			YES	1980-2015	YES	1960-2015			
Age length key (fishing season)			YES	2015			YES	2001-2015	YES	2000, 2001,			
Fishery-independent information													
Survey stock biomass index			NO		NO		YES	2003-2015	YES	1980-1990	1990-		
Survey stock abundance index			NO		NO		YES	2003-2015	YES	1980-1990	1990-		
Survey size composition			NO		NO		YES	2003-2015	YES	1980-1990	1990-		
Survey age composition			NO		NO		YES	2003-2015					
Spatially-explict survey			NO		NO		YES	2003-2015	YES	1980-1990	1990-		
Abundance of larvae			NO		NO		YES	2003-	YES	1970-1990			
Biological information													
Maturation rate at age			NO				YES	2013, 2014	YES	?			
Length-weight relationship			YES	2006-2015			YES	1980-2015	YES	1970-2015			
Size at age			NO				YES	2003-2015	YES				
Weight at age			NO				YES	2003-2015	YES				
Age length key			NO				YES	1998-2015	YES				
Assumed natural mortality			NO				YES	1.25					

Annex B

DRAFT TERMS OF REFERENCE FOR THE NPFC PACIFIC SAURY STOCK ASSESSMENT WORKING GROUP

1. To compile and evaluate the fishery-dependent, fishery-independent, and biological data used in the assessment;
2. To develop and evaluate the stock assessment models used to assess the stock;
3. To develop the base-case scenario and scenarios for sensitivity analysis;
4. To conduct stock assessment, including the estimation of F-based and Biomass-based target and limit references, and sensitivity analysis and evaluate the assessment findings/results;
5. To conduct and evaluate the stock projections;
6. To evaluate and discuss uncertainties in the assessment, and their potential consequences;
7. To make the research recommendations for the next assessment;
8. To recommend guidance on key improvements in data and modeling approaches which should be considered when scheduling the next assessment;
9. To complete the draft stock assessment report.

NPFC

1st Meeting of the Scientific Committee

25-27 April 2016

Tokyo, Japan

Meeting Report

1st Meeting of the Scientific Committee

AGENDA

1. Opening of the meeting
2. Election of Chair and vice Chair
3. Nomination of Rapporteur
4. Adoption of Agenda
5. Meeting arrangements
6. Review of recommendations of the Small Scientific Committee meetings
   - 6.1 SSC and recommendations on Vulnerable Marine Ecosystems
   - 6.2 SSC and recommendations on North Pacific Armorhead
   - 6.3 SSC and recommendations on Pacific saury
7. Progress and update on stock assessment
   - 7.1 Bottom fish stocks
   - 7.2 Pelagic fish stocks
8. Refinement of Interim and Voluntary Measures on VMEs and Marine species
9. Discussion on the progress of Scientific Works
   - 9.1 Development of standardized reporting templates (Korea)
   - 9.2 Development of encounter protocols for VMEs (USA)
   - 9.3 List of priority species (Secretariat)
10. Collection of data and information from fisheries
11. Terms of Reference and work plan of the Scientific Committee
12. Cooperation with other organizations
13. Advice and Recommendations to the Commission
14. Other matters
15. Date and Place of next meeting
16. Adoption of the report
17. Close of the meeting

MEETING REPORT

Agenda Item 1. Opening of Meeting

1. The 1st meeting of the Scientific Committee took place in Tokyo, Japan and was attended by Members from Canada, China, Japan, Republic of Korea, the Russian Federation, Chinese Taipei, a party that has not yet ratified the Convention (United States of America) and observers (Vanuatu, NPAFC, and FAO).

2. The meeting was opened by Shigeto Hase, Deputy Director General of the Fisheries Agency of Japan who noted the significant progress made by the Small Scientific Committees for Vulnerable Marine Ecosystems (VME), North Pacific armorhead (NPA) and Pacific saury (PS), and wished the Scientific Committee a successful meeting (Annex A).

Agenda Item 2. Election of Chair and Vice Chair

3. The Executive Secretary proceeded to the selection of the Chair and Vice Chair. Dr. Joji Morishita was selected to Chair the Scientific Committee, and Dr. Janelle Curtis was selected as the Vice Chair.

Agenda Item 3. Nomination of Rapporteur

4. Mr. Peter Flewwelling was nominated as Rapporteur with support provided from Japan.

Agenda Item 4. Adoption of Agenda

5. The provisional agenda was adopted without amendment.

Agenda Item 5. Meeting arrangements

6. The Chair provided information on procedural matters including the meeting schedule, document list, and administrative arrangements.

Agenda Item 6. Review of recommendations of the Small Scientific Committee (SSCs) meetings

Agenda Item 6.1 – Small Scientific Committee on Vulnerable Marine Ecosystems

7. SSC and recommendations on Vulnerable Marine Ecosystems (VME) - Chair of the SSC VME01, Dr. Loh-Lee Low, summarized the results of the meeting. Discussions focused on interim and voluntary measures and encounter protocols resulting in the following recommendations to SC:

a. VME taxa – no change, VME indicators remain as *Alcyonacea, Antipatharia, Gorgonacea, Scleractinia,* with the potential for addition of new taxa if research so indicates.
b. Encounter threshold - no change, the threshold remains at 50 kg per haul resulting in a mandatory move-on rule and a proposal for an immediate, temporary closure of the area until further analysis or a survey could be conducted.
c. Move-on rule – a change from 5 nm to 2 nm noting that the former limit caused significant problems for fishers.
d. Reporting Requirements – no change as there were sufficient reporting data required by onboard observers at this time.
e. Voluntary Measures for NW Pacific Ocean – no change as there were no new data upon which to justify any change at this time.
f. Interim Measures for the NE Pacific Ocean – refers the Measures to the SC for consideration
g. Exploratory Fishery Protocol in the North Pacific Ocean – no change, again as there were no new data upon which to justify any change at this time.

8. SSC VME could not scrutinize the draft Conservation and Management Measure (CMM) (NPFC01-2016-SSC-NPA01-WP03a) due to lack of time, nor did it address the scientific merits of closure of the area to fishing north of 45°N, the prohibition of fishing below 1500m, the closures of C-H seamount and part of the southeastern slope of Koko Seamount in the NW Pacific. SSC VME recommended no change and further discussion on this point at SC. SSC VME recommended the interim measures for NE Pacific Ocean be updated for consideration by SC.

9. It was noted that FAO shared its information on VME and the VME ecosystem database with the SSC VME and encouraged NPFC to actively participate in the exercise. This was again reiterated by the FAO representative attending SC.

10. The SSC VME report was accepted by SC.

Agenda Item 6.2 – Small Scientific Committee on North Pacific Armorhead (NPA)

11. The Chair of SSC NPA, Dr. Taro Ichii, summarized the discussions in the SSC NPA noting that: in 2015, NPA catch was the lowest since 2003; the progress on stock assessment and adaptive management (AM) approach for NPA (Annex C of SSC NPA report); and the challenges to be addressed.

12. SSC NPA was a landmark meeting in that the NPA fishers were fully involved in the discussions and raised their concerns with respect to the AM approach, namely, the facts that: initial catch limit for AM is critical for business planning; a mechanism for timely revision of the catch limit is required to minimize delays in operations; and the need for equitability and acceptance of the AM scheme across all Members was a pre-requisite for acceptance by the fishers from Japan.

13. SSC NPA reviewed the current Interim and Voluntary Measures and provided the recommendations to SC. SC recommends the following to the Commission:
    a. Although NPFC continues to investigate various management strategies, in the interim, SSC NPA recommends it be tasked to develop the Adaptive Management approach for NPA and refine data collection schemes accordingly;
    b. On the proposed CMM on Bottom Fisheries to formalize the interim measures for the Northwestern Pacific, the paragraph on measures be changed as follows:
        i. Paragraph 4 A – Limit Fishing effort in bottom fisheries in the western part of the Convention Area to a level agreed in February 2007 in terms of number of fishing vessels and other parameters which reflect the level of fishing effort, fishing capacity or potential impacts on marine ecosystems.
        ii. Paragraph 4 G - C-H Seamount is closed for conservation of fish stocks. Part of the southeastern slope of Koko Seamount is closed as a precaution for potential VME conservation (Coordinates are noted in SWG 6, Para 5(b)(i)). Fishing in these areas requires exploratory fishery protocol
        iii. Paragraph 4 I – Bottom fisheries closure from November to December. All other clauses under paragraph 4 remain unchanged.

14. China suggested that such changes should not be made to the proposed CMM revised from the interim measures until conclusions based on best scientific information available would be reached by consensus.

15. The report from the SSC NPA was accepted by SC. SC requested the Commission to clarify the ‘agreed number of fishing vessels and other parameters’ referred to in the above paragraph 13(b) (i).

16. SC confirmed that adoption of recommended changes to the CMM is the responsibility of the Commission and SC would only input science-based recommendations on the CMM to the Commission. This applies to the recommendation of both SSCs - VME and NPA.

Agenda Item 6.3 – Small Scientific Committee on Pacific Saury (PS)

17. The Chair of SSC PS, Dr. Toshihide Iwasaki, summarized the results of the meeting noting that the focus was on four key points:
    a. Review of Pacific saury fisheries through Annual Reports;
    b. Progress on stock assessment (NPFC01-2016-SSC-PS01-WP01 & WP03 Rev1 – Japan; NPFC01-2016-SSC-PS01-WP02a & b - Chinese Taipei; and NPFC01-2016-SSC-PS01-WP04 – Russia);
    c. Ways to improve reporting and data collection; and
    d. Recommendations to the SC.

18. SSC PS agreed that size composition data are important for stock assessment and that Stock assessment should be a two-step process: provisional assessment for 2017 and a longer term assessment exercise.

19. The following issues were recommended to SC. SC recommended the following to the Commission:
    a. catch data presented in the annual report be separated into two columns for each Member – one being total catch taken by the Member (including catch in the CA, catch in national waters of the Member and catch in national waters of another Member) and the second column to include that portion taken in the Convention Area (CA). Total catch of Korea will not include catch in Korean national waters. The fishing days and numbers of vessels by area were also to be split accordingly, if possible;
    b. the proposal to form a technical working group to work intersessionally through a workshop to develop a Pacific saury stock assessment for the presentation to the Commission in 2017 and identify the research and data required to develop the next assessment. The composition of the working group, its terms of reference and timing were submitted for approval of SC (Annex D of SSC PS Report) noting that Korea agreed to host the workshop.

20. It was noted that the Convention also tasks the SC to address the management of species that are part of the same ecosystem and that are impacted by the fishing operations. Although this component activity has not yet been fully addressed by the SSCs or SC, it was generally agreed to consider species interactions as a longer term objective for the Pacific saury stock assessment exercise.

21. The report of the SSC PS was accepted with the comments as noted.

Agenda Item 7. Progress and update on stock assessment

Agenda Item 7.1 Bottom Fish Stocks

22. Chair of SSC NPA, Dr. Toro Ichii, summarized the results of the stock assessments and management approaches for Northwestern Pacific Ocean bottom fisheries referring to documents NPFC01-2016-SSC-NPA01-WP01 and WP02 of Japan on adaptive management approaches and stock recruitment respectively.

23. The following recommendations resulted from these assessments:
    a. The assessment by the SSC NPA as noted in Agenda Item 6 was accepted by the SC and noted the necessity of further improvement of the stock assessment.

24. SC noted that although there has been work on stock assessments for alfonsino by Japan in 2009, it was noted that there does not appear to be enough data available to complete stock assessments at this time. SC pointed out the necessity to continue collecting data from fisheries using different fishing gear for future stock assessment of other bottom fish species.

Agenda Item 7.2 Pelagic Fish Stocks

25. The Chair noted the work done by Japan on chub mackerel (NPFC01-2016-SC01WP01(Rev1)) and spotted mackerel (NPFC01-2016-SC01-WP02 (Rev 1).
    a. Japan presented information on the spawning seasons and migration patterns of chub mackerel and noted that 80% of fishing grounds are in the Japanese EEZ. A stock recovery project launched in 2003 and stock has been recovering with annual catches of 270,000 mt in 2014 with an estimated biomass of 1.47 million mt in this same year. Japan noted the importance of limiting fishing effort to the current level.
    b. Japan also presented its stock assessment on spotted mackerel. The spawning grounds and fishing areas were noted as being almost entirely within Japanese EEZ. Annual catch in 2014 was 119,000 mt and the estimated biomass was 791,000 mt.

26. The discussion highlighted the issues associated with current VPA-based stock assessment and the need for further work on the stock assessments for these two species including retrospective analyses and examining the influence of stock structure. Russia and Japan expressed the idea that this work should not be delayed.

27. Japan proposed the establishment of a SSC for Small Pelagic Fish Stocks (NPFC01-2016-SC01-WP03) that was linked to identification of prioritized species for the work of the Commission and SC. Most Members supported the proposal. China tentatively

supported the proposal from Japan for possible future action, but proposed that the SC should focus its efforts on the stock assessment of Pacific saury first, and then consider such future work. Russia proposed an alternative to merge the current SSC PS into a SSC Pelagic Fish Stocks to undertake analyses on all priority pelagic fish stocks with initial focus on Pacific saury and mackerels. Chinese Taipei supported the idea of further scientific research on mackerel.

28. Japan expressed its concern for a timely assessment for chub mackerel due to the rapidly increasing fishing effort directed to this species, and suggested not to increase, but rather to decrease fishing effort in the Convention Area in accordance with Convention Article 3(h). China pointed out that any issues related to management or compliance should not be discussed in SC.

29. SC agreed to hold a small *ad hoc* workshop for the scientific analyses of the chub mackerel stock. There was agreement to progress through a workshop. Japan would present the objective and terms of reference for the workshop prior to the Commission meeting in August with the expected report of the outcomes to be presented to the next SC meeting.

Agenda Item 8. Refinement of Interim and Voluntary Measures on VMEs and Marine species

30. It was noted that due to delays in the work of the Corresponding Group on CMM formed by NPFC Circular 003/2015, the Secretariat had proposed a draft CMM in an attempt to incorporate current interim and voluntary measures into a formal document for consideration by the Commission.

31. There was discussion on the paper submitted by Canada (NPFC01-2016-SC01WP08) to review and compare the interim measures of NE and NW Pacific Ocean with respect to objectives in the Convention text. The intent of this paper was to enable SC to identify which issues it could address and which would need to be addressed by TCC and the Commission.

32. The SC encouraged the CMM Corresponding Group to commence its work as soon as possible. It was suggested that the Corresponding Group addresses:
    a. editorial issues, e.g., change SWG to SC, etc.;
    b. the recommendations from SC to the Commission;
    c. Canada's paper (NPFC01-2016-SC01-WP08), and
    d. Compile a draft CMM for consideration at the 2nd annual session of the Commission.

Agenda Item 9. Discussion on the progress of Scientific Works

Agenda Item 9.1 - Development of standardized reporting templates (Korea)

33. Korea presented the detailed work it had done to develop data forms for the NPFC fisheries as assigned by the Commission. SC recognized that standardized data collection would assist both in the implementation of the CMM as well as progressing the work of the Scientific Committee.

34. SC recognized that the CMM exercise was progressing in the Commission and that the results of that exercise will clarify the instruction to SC and Korea as to:
    a. the objective for the data collection; and
    b. whether it was to be reported by observers or fishers, or both.

35. This clarification from the Commission would facilitate timely development of standard forms for both statistical and scientific data collection.

Agenda Item 9.2 - Development of encounter protocols for VMEs (USA)

36. The USA presented a summary explaining the rationale behind the need for an encounter protocol based on Resolutions from the United Nations in 2006 and thereafter, the areas of interest and the concern that data deficiencies made it difficult to respond to the requirements of the SWG at that time. The USA noted the recent discussion on encounter protocols in SSC VME and the recommendations highlighted earlier under Agenda Item 6. USA proposed that a Small Working Group under the SSC VME be established in order to continue these discussions through correspondence during the intersessional period.

37. SC therefore:
    a. noted the need for continuing work on the tasks for the SSC VME; and
    b. proposed intersessional work by e-mail correspondence under the leadership of Dr. Masashi Kiyota to continue work on the SSC VME issues of VME identification, the list of VME taxa, encounter thresholds and ‘move-on’ distances, and a framework for managing encounters for the NE Pacific Ocean. Participants were requested to provide the names of their representatives to both the Secretariat and Dr. Kiyota by the end of April.

Agenda Item 9.3 - List of priority species

38. The Secretariat presented NPFC01-2016-SC01-WP04 on priority species for the NPFC. SC noted that the list is a tool to establish the common understanding between SC and the Commission regarding priorities for the NPFC. The priority species for SC recommended to the Commission, included:

North Pacific armorhead *Pseudopentaceros wheeleri*,

Splendid alfonsino *Beryx splendens*,

Pacific saury *Cololabis saira*,

Neon flying squid *Ommastrephes bartramii*,

Japanese flying squid *Todarodes pacificus*,

Chub mackerel *Scomber japonicus*,

Spotted mackerel *Scomber australasicus*,

Japanese sardine *Sardinops melanostictus.*

Agenda Item 10. Collection of data and information from fisheries

39. The Chair noted that this issue was extensively discussed and recorded in the previous sections of the current report. SC notes there was a desire to have a similar degree of data collection for all fisheries. SC also notes data and information needs for more sophisticated scientific analysis for the future.

Agenda Item 11. Terms of Reference and work plan of the Scientific Committee

40. Canada presented its paper NPFC01-2016-SC01-WP06 on proposed Terms of Reference for the SC and subsidiary committees. There was general understanding on the importance and the need for peer review of stock assessments and other research products. China raised the concern that lack of explicit reference to the process of peer review in Terms of Reference may affect the credibility and acceptance of the stock assessment results. However, the lack of consensus did not enable this to be included in the Terms of Reference. NPFC01-2016-SC01-WP06 Rev 1 was sent to the Commission for its consideration.

41. The Chair thanked Canada for NPFC01-2016-SC01-WP07 on the proposed 5-year Research Plan and noted that it had been submitted almost two years ago. The current situation has changed, consequently the Chair noted that it might not be appropriate to address this paper at this time. Further, the Chair asked if it was appropriate to place this responsibility on one Member as the responsibility should move to the SC as a whole.

The Chair proposed that he now organize the discussion of this paper, instead of Canada. The Chair requested that he be permitted a short time to revise the document and submit it to the next meeting of the SC. There was consensus for this approach.

Agenda Item 12. Cooperation with other organizations

42. The Secretariat presented a draft paper NPFC01-2016-SC01-WP05 on cooperation with other organizations for discussion. SC noted that there are two levels of cooperation:
    a. Mutual observers to each other's meetings to strengthen scientific information exchange and cooperation;
    b. Higher level and more formal cooperation through a memorandum of understanding whereby for there is cooperation and active exchange of information or cooperative actions between organizations.

    It was suggested that SC limit its cooperation at this time to the more informal observer status at the meetings of each other.

43. It was recognized that inclusion of some organizations in the list of cooperation would not prejudice the positions of Participants regarding the membership or any other character of the organizations.

Agenda Item 13. Advice and Recommendations to the Commission

44. The recommendations from the Scientific Committee are shaded in the body of the report.

Agenda Item 14. Other matters

45. Japan raised the issue of data management policy which could include protection of data ownership, and other issues related to data and publication handling by SC. There was general agreement on the need for a NPFC data management policy. Japan will submit a proposal for a draft document for a data management policy for discussion by the next SC meeting. The Chair encouraged other members to submit any further suggestions and proposals to Japan to assist their preparation of the proposal.

46. The SC was reminded that the deadline of submission of meeting documents should be respected in accordance with the NPFC Rules of Procedure.

47. Canada noted the opportunity for NPFC to participate in, and support the *International Symposium on Drivers of Dynamics of Small Pelagic Fish Resources*, that will be held in Victoria, Canada, from 6-11 March 2017.

Agenda Item 15. Date and Place of next meeting

48. The next Scientific Committee Meeting, along with SSC meetings are recommended to be held in the spring of 2017 after the workshop of the Technical Working Group on Pacific Saury Stock Assessment, and possibly the workshop on chub mackerel. Dates and places of the next meetings will be confirmed by the Secretariat by correspondence.

Agenda Item 16. Adoption of the report

49. The First Scientific Committee Final Report was adopted by consensus on 27 April 2016.

Agenda Item 17. Close of Meeting

50. The SC01 Meeting closed at 13:11 on 27 April 2016.

51. The Participants thanked the Chair for his able leadership and guidance during the meeting.

Annexes

Annex A – Opening Remarks by Deputy Director General Shigeto Hase

Annex A

FISHERIESAGENCY

MINISTRY OF AGRICULTURE FORESTRY ABD FISHERIES, GOVERNMENT OF JAPAN
1-2-1, Kasumigaseki, Chiyoda-ku, Tokyo 100-8907, Japan

OPENING REMARKS
BY
DEPUTY DIRECTOR-GENERAL SHIGETO HASE

Good morning, Colleagues. I am Shigeto HASE, Deputy Director-General of the Fisheries Agency of Japan, representing the host country of these Scientific related meeting,

I would like to send you my warmest welcome to you all to Tokyo and NPFC.

I see that the schedule of the meetings has extended considerably. I heard some of you are staying in Japan more than 2 weeks for all the meetings. I hope therefore, that each of you will find the time to enjoy the spring in Japan through the weekends or on the days you are not participating the meetings.

I wish to thank everyone for their very hard work. I heard there have already been many fruitful discussions and positive outcomes. I also heard there was a good attempt to formalize the current Interim and Voluntary Measures for vulnerable marine ecosystem (VME) and deep-sea fisheries into a formal Conservation and Management Measure (CMM) and this will be further addressed at this meeting. I look forward to the discussions of SC (Scientific Committee) resulting in many positive recommendations for the 2nd Commission meeting and I must emphasize that if we have a formal VME Measure as a CMM, it will be a very important indicator for the international community as to our commitment to the UNGA Resolutions, especially with the UN Bottom Fisheries Review this year. It will send the message that NPFC is now established and functioning satisfactorily.

Another noteworthy event in these sessions was the meeting between scientists, managers and the industry. The efforts to hear direct input from the fishing industry is very meaningful for the transparency and participatory management of North Pacific armorhead, considering this species has distinct character for which it is difficult to develop management schemes.

Thirdly, I heard the Small Scientific Committee on Pacific Saury (SSC-PS) has reached very constructive agreement to establish a Technical Working Group which complete the provisional stock assessment for 2017. I believe this process will help to build the scientific foundation for future management of Pacific saury, including TAC.

For Japan, the North Pacific Ocean is the most important ocean as it cultivates saury and mackerels, which are historically very popular in Japan's food culture. Currently, Japan is concerned that the catch of chub mackerel and other pelagic fish in the North Pacific is rapidly increasing. Thus, NPFC is a very important RFMO for Japan. I sincerely wish that the NPFC adopts and implements the resource management for these stocks as soon as possible using the wisdom and the expertise of the NPFC scientific community. Japan has submitted a proposal to establish SSC-Small Pelagic as a part of its objective to further assist in this exercise.

The results of this SC will be submitted as recommendations to the Commission. As NPFC is in the very early stages of its development, these recommendations will form a very important scientific base for the Commission's future decisions.

I wish the Scientific Committee has a very fruitful discussion and results.

Thank you.

NPFC

1st Meeting of the Technical and Compliance Committee

22-23 August 2016

Tokyo, Japan

Meeting Report

1st Meeting of the Technical and Compliance Committee

AGENDA

Agenda Item 1. Opening of the Meeting

Agenda Item 2. Selection of Chair, Vice Chair and Rapporteur

Agenda Item 3. Admission of Observers

Agenda Item 4. Adoption of Agenda

Agenda Item 5. Progress Report from the Secretariat
- 5.1 Overview of North Pacific Fisheries

Agenda Item 6. Review of MCS related issues from SC

Agenda Item 7. Review of Current MCS-related CMMs
- 7.1 CMM 2015-01 - Vessel Registry
- 7.2 CMM 2015-02 - Pacific saury

Agenda Item 8. Ongoing MCS Issues
- 8.1 Transshipment
- 8.2 High Seas Boarding and Inspection Procedures
- 8.3 Interim and Voluntary Measures for Bottom Fisheries - Annual Reports
- 8.4 Other MCS Issues

Agenda Item 9. Review of new MCS-related CMMs
- 9.1 CMM IUU Fishing - Japan
- 9.2 CMM Bottom Fisheries – SC Corresponding Group

Agenda Item 10. Liaison Regional Fisheries Bodies

Agenda Item 11. Other Matters
- 11.1 TCC Terms of Reference – Canada
- 11.2 TCC Framework - Canada

Agenda Item 12. Next Meeting

Agenda Item 13. Adoption of the Report

Agenda Item 14. Close of the Meeting

MEETING REPORT

Agenda Item 1. Opening of Meeting

1. The 1st meeting of the Technical and Compliance Committee (TCC) took place in Tokyo, Japan during 22nd and 23rd August 2016, and was attended by Members from Canada, China, Japan, the Republic of Korea, the Russian Federation, Chinese Taipei. United States of America, Vanuatu, and NPAFC attended as observers.

Agenda Item 2. Election of Chair, Vice Chair, and Rapporteur

2. The Interim Chair proceeded with the selection of the Chair, Vice Chair, and Rapporteur. Mr. Robert Day (Canada) was elected to Chair TCC, and Mr. Jeongseok Park (Republic of Korea) was elected as the Vice Chair unanimously. Mr. Alexander Meyer was selected as Rapporteur.

Agenda Item 3. Admission of Observers

3. The Chair listed approved observers present, namely the United States, Vanuatu, and NPAFC. The Chair also noted that DSCC had registered as an observer but was not present, and that Ukraine was invited to attend as an observer but was not present. The observers were admitted without objection.

Agenda Item 4. Adoption of Agenda

4. A presentation by Japan on Vessels Sighted in the Convention Area by Japan's Fisheries Enforcement Vessels (paper NPFC-2016-TCC01-IP05) was added under agenda item 5.1 (Overview of North Pacific Fisheries).

5. Presentations by Canada on TCC Terms of Reference and TCC framework (papers NPFC-2016-TCC01-WP02 and NPFC-2016-TCC01-WP03, respectively), were added under agenda item 8 (Ongoing MCS Issues).

6. Information from Russia on fishing vessels sighted by Russia was added under agenda item 5.1 (Overview of North Pacific Fisheries).

7. The revised agenda was adopted.

Agenda Item 5. Progress Report from the Secretariat

5.1 Overview of North Pacific Fisheries.

8. The Secretariat presented an overview of key North Pacific Fisheries, namely, bottom fisheries, squid fisheries, Pacific saury fisheries, and mackerel fisheries, referring to paper NPFC-2016-TCC01-IP03 Overview of Fisheries 2015. The Secretariat also provided considerations for a monitoring, control and surveillance work plan for the NPFC.

9. Japan presented on Vessels Sighted in the Convention Area by Japan's Fisheries Enforcement Vessels, referring to paper NPFC-2016-TCC01-IP05. Japan expressed its concern that almost 200 foreign vessels were sighted just outside of Japan's EEZ and its adverse impact to chub mackerel stock. It further expressed that this rapid increase of the vessels was in contradiction of Article 3h of the NPFC Convention. Russia also expressed its concern with respect to the high concentration of fishing vessels close to the Russian EEZ. The ensuing discussion focused on addressing fishing vessels with falsified or concealed names, and the idea of introducing gear restrictions, such as banning the use of tiger nets in the NPFC Convention Area.

10. Russia informed on fishing activities by vessels sighted by Russia. Following this, the Members discussed establishing a mechanism for sharing information about IUU fishing.

11. The Member concerned in the reports welcomed receipt of the information, and informed Members that an investigation had been taken and clarified the incidents accordingly, pursuant to relevant provisions of the NPFC Convention.

Agenda Item 6. Review of MCS related issues from the Scientific Committee (SC)

12. The Secretariat summarized the MCS related issues arising from SC. The main issue to arise was a proposed CMM on bottom fisheries. It was proposed that more detailed discussion on this matter would be held under agenda item 9.2 (CMM Bottom Fisheries – SC Corresponding Group).

Agenda Item 7. Review of Current MCS-related CMMs

7.1 CMM 15-01 – Vessel Registry

13. The Secretariat presented an update on NPFC Authorized Fishing Vessel Registration, and noted that in the future, Members would be responsible for updating their own vessel registry information. The Secretariat also noted the possibility of amending the NPFC Authorized Fishing Vessel Registration scheme to include the International Maritime Organization (IMO) vessel number as a mandatory data requirement to enable it to merge with the FAO Global Record of Fishing Vessels and other global schemes, as well as to include non-Member carrier vessels under the NPFC scheme. Discussions referred to papers NPFC-2016-TCC01-IP01 from the Secretariat and NPFC-2016-TCC01-WP07 from Chinese Taipei.

14. Japan informed the meeting that almost all of its registered vessels are very small, coastal vessels, which can spontaneously appear in the Convention Area, depending upon the fishery conditions, but normally fish inside their EEZ, and stressed the necessity to take into account this fishing characteristic (vessel size / fishing pattern) when considering the development of new CMMs.

15. A revised CMM was developed under agenda item 9.4.

7.2 CMM 15-02 – Pacific saury

16. The Committee discussed the CMM on Pacific saury. Japan expressed its concern that the number of vessels registered to the NPFC vessel registry was still increasing and requested Members to stop their authorization. The discussion focused on the need to clarify how to interpret and implement the CMM while the stock assessment was being undertaken pursuant to Article 3h of the Convention, and the use of VMS on each vessel.

17. It was recommended that each Member provide a report on how it implements this CMM within its annual report by the end of February every year.

Agenda Item 8. Ongoing MCS Issues

18. The Secretariat provided an overview of ongoing MCS issues, paper NPFC-2016-TCC01-IP04 MCS Requirements of the Convention, highlighting the need to assess the MCS tools specified by the Convention, to further assess MCS tools available for effective monitoring of fishing operations in the Convention Area, and to seek priorities and time lines for implementation.

19. The Committee discussed areas of priority, highlighting methods for Members to review their compliance with CMMs, and IUU-related measures and recognized that the previous presentations set the stage for developing the compliance framework and work plan to input into the Commission work plan.

8.1 Transshipment

20. There was discussion on the paper submitted by the Chair (initially prepared by the United States [NPFC-2016-TCC01-WP04]) on Interim Transshipment Procedures for the NPFC. Based on this discussion the Committee recommended that the Commission adopt the interim procedures, pursuant to the addition of a contact list to be provided by the Secretariat on its website for use by all Members and the Non-Member carriers to allow them to submit the relevant information to the flag Member.

8.2 High Seas Boarding and Inspection Procedures

21. There was discussion on the paper submitted by the Chair prepared by the United States (NPFC-2016-TCC01-WP05) on High Seas Boarding and Inspection Procedures. Significant progress was made but the Committee noted that further direction would be required from the Commission to finalize this proposal, recognizing two key points:
    a. Some Commission Members voiced the opinion that there were fundamental issues that would prevent early adoption of this CMM; and
    b. Recognition that if the Commission did not develop its own CMM for high seas boarding and inspection (HSBI) within three years that Articles 21 and 22 of the UNFSA would automatically apply and become effective as the HSBI CMM for NPFC.

8.3 Interim and Voluntary Measures for Bottom Fisheries – Annual Reports

22. Discussion was deferred to agenda item 9.

8.4 Other MCS Issues

23. The Secretariat list of MCS requirements outlined in the Convention was noted as extensive and requiring further discussion. The Commission was asked to consider providing direction to TCC on priority areas to consider.

24. The Committee discussed a paper submitted by Canada (NPFC-2016-TCC01-WP02) on TCC Terms of Reference. Based on this discussion the Committee recommended that the Commission adopt the TCC Terms of Reference, while also requesting the guidance of the Commission on the outstanding matter of the process for the selection of the Chair and Vice-Chair.

25. The Committee discussed a paper submitted by Canada (NPFC-2016-TCC01-WP03) on a TCC Framework. Based on this discussion the Committee recommended that the Commission consider adoption of the TCC Framework which would be used to help coordinate the work of TCC, under the direction of the Commission.

Agenda Item 9. Review of new MCS-related CMMs

9.1 CMM IUU Fishing – Japan

26. The Committee discussed a proposal submitted by Japan (NPFC-2016-TCC01-WP01) on a CMM to Establish a List of Vessels Presumed to Have Carried out IUU Fishing Activities in the Convention Area of the NPFC. Members identified the importance of addressing IUU issues through the Commission. Based on this discussion, the Committee recommended that

the Commission adopt the CMM, pursuant to the review of the use of the term "Flag State" throughout and report to the 2016 Annual Meeting of the Commission.

9.2 CMM Bottom Fisheries & CMM VMEs – SC Corresponding Group

27. The Committee discussed a paper prepared by the SC Corresponding Group (NPFC-2016-TCC01-WP08) on a CMM for Bottom Fisheries and Protection of VMEs in the Western and Eastern Part of the Convention Area based on the interim measures. Based on this discussion the Committee recommended that the Commission consider adoption of the CMMs on Bottom Fisheries and on VME Protection.

9.3 CMM Vessels without Nationality – Korea

28. The Committee discussed a proposal submitted by Korea (NPFC-2016-TCC01-WP06) to consider a CMM on Vessels without Nationality. Based on this discussion the Committee recommended that the Commission consider adoption of the CMM.

9.4 CMM Proposal to amend CMM 15-01 Vessel Registry – Chinese Taipei

29. The Committee discussed a proposal submitted by Chinese Taipei (NPFC-2016-TCC01-WP07(Rev2)) to create a new CMM including an interim mechanism to allow Members or Cooperating non-Contracting Parities to submit a list of carrier vessels of non-Members which are allowed to conduct transshipments with fishing vessels of Members or Cooperating non-Contracting Parities. Based on this discussion the Committee recommended that the Commission consider adoption of the CMM.

Agenda Item 10. Liaison Regional Fisheries Bodies

30. The Secretariat gave a presentation on plans for creating a list of RFOs/RFMOs with which to establish liaison, and to initiate discussions on the types of liaison that would be appropriate. In the ensuing discussion, it was noted that given the recent establishment of the NPFC, for the time being, priority should be given to the establishment of CMMs and MCS measures, and that the type of liaison should currently be limited to observer attendance.

Agenda Item 11. Other Matters

No other matters were discussed.

Agenda Item 12. Next Meeting

32. Canada proposed the hosting of an intersessional TCC meeting in the spring of 2017 so as to be able to address the various issues faced by the Committee in more technical detail. The

Committee recommended that the Commission consider Canada's proposal and potential timing.

Agenda Item 13. Adoption of the report

33. The First Technical and Compliance Committee Final Report was adopted.

Agenda Item 14. Close of Meeting

34. The TCC01 Meeting closed at 19:49 on 23 August 2016.

ANNEXES

Annex A Framework for the Technical and Compliance Committee

Annex A

TECHNICAL AND COMPLIANCE COMMITTEE FRAMEWORK

Rationale: The Framework is designed to map out the measures that could, with time, come into force in the NPFC and identify areas of focus for the Commission and its subsidiary bodies. In order to shape work for the TCC, and to agree on what modules might need to be developed in the future, Canada proposes that the TCC adopts a framework that would shape the work of TCC over the course of the next 5 years.

This proposed framework is divided into three main sections, including:

1. CMMs for Priority Species;
2. CMMs for Vulnerable Marine Ecosystems (VMEs) or other ecosystem elements; and,
3. CMMs for Science and Monitoring, Control And Surveillance (MCS) measures

The draft framework includes general titles of CMMs which could then be subsequently developed and adopted by the Commission.

PART 1 - CMMs FOR PRIORITY SPECIES

This section includes dedicated CMMs for both species that have been identified as priority species by the Commission, as well as others that could be developed for species that are both the target of directed fisheries managed by the Commission, as well as others that are taken as bycatch (e.g. sharks, seabirds, sea turtles) in NPFC Fisheries:

i. North Pacific armorhead *Pseudopentaceros wheeleri*,
ii. Splendid alfonsino *Beryx splendens*,
iii. Pacific saury *Cololabis saira*, *[CMM in force]*
iv. Neon flying squid *Ommastrephes bartramii*,
v. Japanese flying squid *Todarodes pacificus*,
vi. Chub mackerel *Scomber japonicus*,
vii. Spotted mackerel *Scomber australasicus*,
viii. Japanese sardine *Sardinops melanostictus*.
ix. CMMs for other species (target and non-target)

Each CMM could set out the measures through which fisheries are to be managed (e.g. effort-based, TAC/quota controls, season, gear, etc…) for the species which it covers.

PART 2 - CMMs FOR VMES

As above with species, this section of the framework would include CMMs that have been adopted

by the Commission on the protection of VMEs. The work that is underway on the CMMs for the interim measures for both the Northwest and Northeast Pacific Ocean would be the first of a series of CMMs that could be looked at to populate this section of the framework:

i. CMM for measures to protect VMEs in the Northwest Pacific Ocean *[CMM in drafting]*
ii. CMM for measures to protect VMEs in the Northeast Pacific Ocean *[CMM in drafting]*
iii. CMMs on encounter protocols
iv. CMMs on other measures to protect VMEs (not covered in the above)

These CMMs provide for measures designed to protect VMEs and other ecologically and biologically sensitive areas in the NPFC Convention Area.

PART 3: CMMs FOR SCIENCE/MCS MEASURES

Lastly, this section of the framework includes CMMs designed to set out the governance framework for both science and enforcement-based activities. The NPFC's Scientific and Technical and Compliance Committees respectively would develop and take direction from CMMs included within this section. Some areas for which CMMs could be developed include:

Science

i. Observer programs (science, data collection)
ii. Catch monitoring and reporting
iii. Management of Data
iv. Stock assessments for priority species
v. Science assessments on location, structure of VMEs
vi. Science assessments of impacts on VMEs
vii. Exploratory Fisheries Protocol

Enforcement

i. Vessel Monitoring Systems (VMS)
ii. Vessel Registration Requirements *[CMM in force]*
iii. Observer Programs (compliance)
iv. Boarding and Inspection Scheme
v. Transshipment Scheme
vi. IUU Vessel lists
vii. Non-contracting Parties
viii. Port State Controls, Inspection
ix. Chartering Arrangements
x. Compliance Monitoring Scheme

Other CMMs as deemed appropriate could be developed and included to assist the Commission in both its scientific and compliance/enforcement activities.

NPFC

1st Meeting of the Finance and Administration Special Working Group

24 August 2016

Tokyo, Japan

Meeting Report

1st Meeting of the Finance and Administration

Special Working Group

AGENDA

Agenda Item 1. Opening of the Meeting

Agenda Item 2. Selection of Chair, Vice-Chair and Rapporteur

Agenda Item 3. Adoption of Agenda

Agenda Item 4. Financial Statement

- 4.1 Financial Statement from 2015 and 2016 to date
- 4.2 Contributions outstanding
- 4.3 Capital Reserve Fund
- 4.4 New Membership (if required)

Agenda Item 5. Secretariat's Work Plan; Budget Estimates for 2016-2019

Agenda Item 6. Status of this Working Group

Agenda Item 7. Other matters

- 7.1 Rules and Procedures – review Rule 8, paragraph 8.4 on release of reports of Subsidiary Committee Meetings
- 7.2 Rules of Procedure and Financial Regulations with respect to procedures, benefits and financial obligations of Cooperation Non-Contracting Parties (CCPs) to the Convention – both fishing and non-fishing CCPs
- 7.3 Rules of Procedure – Media Access Policy; NPFC Document Rules; NPFC Information Security Management System; Support to Specialist Experts to the Secretariat

Agenda Item 8. Next meeting

Agenda Item 9. Adoption of the Report

Agenda Item 10. Close of the Meeting

MEETING REPORT

Agenda Item 1. Opening of Meeting

1. The Finance and Administration Special Working Group (SWG Finance and Administration) met in Tokyo, Japan on 24 August 2016 and was attended by Members from Canada, China, Japan, Republic of Korea, the Russian Federation, and Chinese Taipei. The United States of America, Vanuatu, NPAFC, and DSCC, attended as observers.

Agenda Item 2. Election of Chair, Vice Chair, and Rapporteur

2. The Interim Chair proceeded to the selection of the Chair, Vice Chair, and Rapporteur. Mr. Kenji Kagawa (Japan) was selected to Chair the SWG Finance and Administration, and Dr. Siquan Tian (China) was selected as the Vice Chair. Mr. Alexander Meyer was selected as Rapporteur.

Agenda Item 3. Adoption of Agenda

3. The Special Working Group considered the Commission Meeting to be a more appropriate venue for discussing agenda item 4.4 on new membership, and requested that the Commission discuss the matter.

4. The Special Working Group considered the Commission Meeting to be a more appropriate venue for discussing agenda item 7.2 on rules of procedure and financial regulations with respect to procedures, benefits and financial obligations of cooperating non-contracting parties, and requested that the Commission would discuss the matter.

5. The order of agenda items 5.1 and 5.2 was reversed.

6. The revised agenda was adopted.

Agenda Item 4. Financial Statement

4.1 Financial Statement from 2015 and 2016 to date

4.2 Contributions outstanding

4.3 Working Capital Fund

7. The Executive Secretary presented the financial statement from 2015 and 2016 to date, the contributions outstanding, and the working capital fund, referring to the Auditor's Report NPFC-2016-SWG-Fin & Admin01-IP01.

8. Members with contributions outstanding clarified their respective situations, and explained steps they were taking to complete payment of contributions.

4.4 New Membership (if required)

9. Discussion was deferred and the Commission was requested to consider this item.

Agenda Item 5. Secretariat's Work Plan; Budget estimated for 2016-2019 including explanation to address challenges

5.1 Budget Estimated for 2016-2019

10. The Executive Secretary presented the budget estimated for 2016-2019, referring to NPFC-2016-SWG-Fin & Admin-WP03 (Rev 3). The Special Working Group recommended that the Commission adopt the budget for 2016 and 2017. The decision of whether or not to recommend the budgets for 2018 and 2019 to the Commission will be made in the future at an appropriate timing. In addition, the following points were discussed:
    a. The Special Working Group recommended that staff be paid a set amount in Japanese yen to avoid exchange rate issues;
    b. The Special Working Group requested Japan to implement Staff Regulation 5, paragraph 5 of the NPFC Staff Regulations for tax reimbursement of Japanese staff who are subject to national income tax to secure good quality of Japanese staff for the effective operation of the Secretariat. The procedure for the reimbursement should be agreed between Japan and the Secretariat;
    c. Regarding the proposed hiring of a data coordinator and a finance coordinator, the Special Working Group noted that the positions should be categorized as General Service Staff, rather than as Professional Staff;
    d. Regarding the proposed accommodation and education allowances, the Special Working Group requested that the Secretariat provide a more detailed plan and propose relevant new provisions for addition to the NPFC Staff Regulations through correspondence. The accommodation and education allowances would be applied retroactively from August 2016, contingent upon the adoption by the Commission of the abovementioned proposal; and
    e. It was requested that the Annex addressing contributions reflect only two years, as opposed to three, recognizing that these are estimates. As well, some Members expressed

their views that the budget total should remain fixed, notwithstanding the potential for new Members, while others suggested that the budget could increase.

The Special Working Group recommended that the Commission adopt NPFC-2016-SWG-Fin & Admin-WP03 (Rev 3) with corrections specified above and that discussions occur on how future budgets, including 2017, would be developed based on new Membership.

5.2 NPFC Work Plan

11. The Executive Secretary presented the NPFC work plan, referring to NPFC-2016-SWG-Fin & Admin WP02 (Rev 1). The Special Working Group requested that the Secretariat present an annual work plan to accompany its annual budget proposal.

Agenda Item 6. Status of this Special Working Group

12. The Special Working Group discussed its status, referring to NPFC-2016-SWG-Fin & Admin IP02 (Rev 1). The Working Group recommended that the Commission establish a standing Committee for Finance and Administration (FAC), so as to be able to provide regular oversight, and in accordance with standard practice among RFMOs.

13. The Special Working Group proposed that the last sentence of paragraph 4 of the Terms of Reference be revised as follows: "The meeting will be open to Members of the Commission only, unless decided otherwise by Members of the Commission."

Agenda Item 7. Other Matters

7.1 Rules of Procedure – review Rule 8, paragraph 8.4 on release of reports of Subsidiary Committee Meetings

14. The Special Working Group discussed the release of reports of Subsidiary Committee Meetings, referring to Rule 8, paragraph 8.4 of the NPFC Rules of Procedures. It was decided that the rule would be retained without revision.

7.2 Rules of Procedure and Financial Regulations with respect to procedures, benefits and financial obligations of Cooperating Non-Contracting Parties (CNCPs) to the Convention – both fishing and non-fishing CNCPs

15. Discussion was deferred and the Commission was requested to consider this item.

7.3 Rules of Procedure – Media Access Policy; NPFC Document Rules; NPFC Information Security Management System; Use of Monthly Exchange rates; Hosting of Commission Meetings

16. The Secretariat presented the NPFC information security management system (NPFC-2016-SWG-Fin & Admin-WP04 (Rev 1)) and media access policy (NPFC-2016-SWG-Fin & Admin-WP05 (Rev 1)). The Special Working Group requested that the Secretariat revise the information security management system and media access policy according to suggestions submitted by Members through correspondence, while also referring to the systems and policies of other RFMOs.

17. The Secretariat presented the NPFC policy on support to specialist experts to the Secretariat or Commission (NPFC-2016-SWG-Fin & Admin-WP07 (Rev 1)). The Special Working Group requested that the Secretariat revise the paper based on concerns expressed by Members on interns and experts from other RFMOs or Agencies, including interns from Members being considered a priority.

Agenda Item 8. Next Meeting

18. The next Finance and Administration Committee meeting is recommended to be held just prior to the Commission meeting.

Agenda Item 9. Adoption of the report

19. The Finance and Administration Special Working Group Report was adopted.

Agenda Item 10. Close of Meeting

20. The Finance and Administration 01 Meeting closed at 18:38 on 24 August 2016.

ANNEXES

Annex A – 2016-2017 NPFC expenses and Members contributions

Annex A

NPFC expenses in the fiscal years 2016 and 2017

	Year 2016	Year 2017
Items	**Cost(JPY)**	**Cost(JPY)**
1. PERSONNEL COSTS		
1.1-1.6 Staff salary	45,390,406	52,516,212
1.7 Temporary Services	621,800	621,800
1.8 (a) Social Security + Insurance	11,565,480	11,565,480
1.8 (b) Pension Costs		
1.8 (c) Tax Reimbursement	7,920,279	
1.9 Overtime	621,800	621,800
1.10 (a) Staff Allowances - Home leave	0	746,160
1.10 (b) Staff Allowances - Relocation	3,109,000	0
1.10 (c) Staff Allowances - Repatriation	0	0
1.10 (d) Staff Allowances - Accommodation	7,461,600	11,192,400
1.11 Professional Development / Training	994,880	994,880
1.12 Education fee	4,974,400	7,461,600
1.13 Separation Allowances	0	0
2. OTHER SERVICE COSTS		
2.1 Office equipment + Furniture	0	621,800
2.2 Office supplies	870,520	870,520
2.3 Rentals	0	0
2.4 Communications	2,487,200	2,487,200
2.5 Printing	497,440	497,440
2.6 Duty travel	4,974,400	6,218,000
2.7 Auditing	621,800	746,160
2.8 Contractual services	8,705,200	4,974,400
2.9 Database management	8,705,200	9,026,129
2.10 MCS costs		
2.11 Meeting costs & Workshops	6,218,000	6,218,000
2.12 Science Support	12,536,290	12,787,016
2.13 Staff recruitment + hiring	0	248,720
2.14 To Working Capital Fund	4,545,884	2,405,862
2.15 Representation expenses	248,720	248,720
2.16 Miscellaneous	994,880	994,880
TOTAL	**134,065,179**	**134,065,179**

Actual Working Capital Fund from budget by the end of year to carry over to next year	**44,716,124**	**47,121,986**

Table of Member Contributions, revised 2016 (JPY)

Member Rule	a)	b)	c)	Fixed Contribution	**Total**	To be paid by 1 October	%
Canada	6,304,563	3,281	3,744,600		**10,052,444**	4,896,131	7.5
China	6,304,563	15,407,674	565,818		**22,278,055**	–	16.6
Korea	6,304,563	2,848,487	2,085,142		**11,238,192**	4,714,345	8.4
Russia	6,304,563	566,831	949,434		**7,820,828**	7,820,828*	5.8
Chinese Taipei	6,304,563	30,709,575	1,661,523		**38,675,661**	20,300,093	28.8
Japan				44,000,000	**44,000,000**	44,000,000	32.8
Total	31,522,815	49,535,848	9,006,517	44,000,000	**134,065,180**	81,731,397	100

* - does not include outstanding contribution for 2015 (5,100,011 JPY)

Table of Member Contributions, 2017 (JPY)

Member Rule	a)	b)	c)	Japan	**Total**	%
Canada	6,304,563	2,852	3,744,600		**10,052,015**	7.5
China	6,304,563	21,022,731	565,818		**27,893,112**	20.8
Korea	6,304,563	2,029,373	2,085,142		**10,419,078**	7.8
Russia	6,304,563	632,782	949,434		**7,886,779**	5.9
Chinese Taipei	6,304,563	25,848,111	1,661,523		**33,814,197**	25.2
Japan				44,000,000	**44,000,000**	32.8
Total	31,522,815	49,535,849	9,006,517	44,000,000	**134,065,181**	100

NPFC

2nd Commission Meeting

24-26 August 2016

Tokyo, Japan

Meeting Report

2nd Commission Meeting

AGENDA

Agenda Item 1. Opening of the Meeting

1.1 Welcome Address

1.2 Adoption of Agenda

1.3 Meeting arrangements

1.4 Nomination of Rapporteur

Agenda Item 2. Membership of the Commission

Agenda Item 3. Report from the Secretariat

Agenda Item 4. Report of the 1st Scientific Committee meeting

Agenda Item 5. Report of the 1st Technical and Compliance Committee meeting

Agenda Item 6. Report of the Finance and Administration Special Working Group meeting

Agenda Item 7. Refinement of the Interim and Voluntary measures to make formal Conservation and Management Measures (CMM)

Agenda Item 8. Review of CMMs

8.1 CMM 15-01

8.2 CMM 15-02

8.3 New CMMs

Agenda Item 9. Adoption of budget

9.1 Budget for 2016-2017

9.2 Budget for 2018-2019

Agenda Item 10. Cooperation with other organizations

Agenda Item 11. Other matters

Agenda Item 12. Next Meeting

Agenda Item 13. Adoption of the report

Agenda Item 14. Close of the Meeting

MEETING REPORT

Agenda Item 1. Opening of Meeting

1. The 2nd Meeting of the North Pacific Fisheries Commission (NPFC) took place in Tokyo, Japan during 24-26 August 2016 and was attended by Members from Canada, China, Japan, Republic of Korea, the Russian Federation, and Chinese Taipei. The United States of America, Vanuatu, North Pacific Anadromous Fish Commission (NPAFC), and Deep Sea Conservation Coalition (DSCC) attended as observers. The participants list is attached to the report.

1.1 Welcome Address

2. The Director-General of the Fisheries Agency of Japan, Mr. Kazuo Sato, welcomed the participants to the 2nd NPFC Meeting (attached). He commended the progress made by the NPFC since its establishment and hoped for fruitful outcomes from the Meeting that would contribute to the effective and sustainable management of the fishery stocks in the Convention Area.

3. Korea expressed appreciation to the Government of Japan as the host country for the hospitality and thanked the Secretariat for its hard work and welcomed the progress that the NPFC has made.

4. NPAFC offered its continued cooperation to the NPFC and extended an invitation for the NPFC to attend its 25th Annual Meeting, which will be held from May 15 to 19, 2017, in Victoria, British Columbia, Canada.

5. The USA provided an update on its efforts to ratify the Convention.

6. Vanuatu provided an update on its efforts to ratify the Convention and expressed its continued commitment to the spirit and goals of the NPFC.

1.2 Adoption of Agenda

7. A presentation by Japan on the status of the Agreement on the privileges and immunities of the NPFC was added under agenda item 3.

8. A proposal by Japan on holding a small ad-hoc workshop for chub mackerel was added under agenda item 4.

9. The revised agenda was adopted.

1.3 Meeting arrangements

10. The Chair outlined the procedural matters for the holding of the meeting.

1.4 Nomination of Rapporteur

11. Mr. Alexander Meyer was selected as the Rapporteur.

Agenda Item 2. Membership of the Commission

12. Republic of Korea, as the Depositary of the NPFC, provided an update on the status of the Convention. There have been no new Members since the previous NPFC Meeting.

Agenda Item 3. Report from the Secretariat

13. The Executive Secretary summarized the annual activities of the Commission, referring to paper NPFC-2016-Annual Report-Secretariat. The Commission adopted the Annual Report.

14. Japan provided an update on the status of the agreement between the NPFC and the Japanese government regarding the privileges and immunities of the NPFC. Japan explained that the agreement has not entered into force yet as it is still on the waiting list for the approval of the Japanese Diet.

Agenda Item 4. Report of the 1st Scientific Committee meeting

15. The Chair of the Scientific Committee, Dr. Joji Morishita (Japan), summarized the outcomes of the 1st Scientific Committee meeting, referring to paper NPFC01-2016-SC01-Final Report, for discussion by the Commission. Based on the discussion, the Commission adopted the report. In addition, the following key points were discussed:
    a. The Commission requested that Korea present to the Commission data on its catch of Pacific saury in Korea's national waters;
    b. The Commission endorsed the holding of a Pacific saury workshop and a technical working group meeting to develop a Pacific saury stock assessment as proposed in the SC01 Final Report and financial support to cover travel costs for one participant from each Member if it is requested;
    c. The Commission requested that the Technical and Compliance Committee hold discussions on further improvement of the stock assessment for Northwestern Pacific Ocean bottom fisheries as outlined in agenda item 7 of the Final Report; and
    d. The Commission requested that the Scientific Committee and the Technical and Compliance Committee hold further discussions on developing data standards, building

on the reporting template developed by Korea and presented at the 1st Scientific Committee Meeting.

16. Japan presented a proposal for holding a small ad-hoc workshop for chub mackerel, referring to paper NPFC-2016-WP-01. The Commission endorsed the proposal, noting that the scientific issues related to chub mackerel stocks need to be urgently addressed. The meeting of the Technical Working Group on Pacific saury and workshop on chub mackerel will be held back-to-back in Tokyo in February 2017, following the workshop on Pacific saury to be held on December 13-15, 2016 in Busan.

Agenda Item 5. Report of the 1st Technical and Compliance Committee meeting

17. The Chair of the Technical and Compliance Committee, Mr. Robert Day (Canada), summarized the outcomes of the 1st Technical and Compliance Committee meeting, referring to paper NPFC-2016-TCC01-Final Report, for discussion by the Commission. Based on the discussion, the Commission adopted the report. In addition, the following key points were discussed:
    a. A provision shall be added to CMM 2015-02 stipulating that each Member provide information on how it implements the CMM in its annual report;
    b. The Commission noted that priority areas for TCC discussions remain outstanding;
    c. In relation to the Terms of Reference, the selection of the Chair and Vice Chair shall be made by consensus in accordance with the relevant provisions of the Convention and the Rules of Procedure of the Commission.

Agenda Item 6. Report of the Finance and Administration Special Working Group meeting

18. The Chair of the Finance and Administration Special Working Group (SWG Finance and Administration), Mr. Kenji Kagawa (Japan), summarized the outcomes of the SWG Finance and Administration meeting, referring to paper NPFC-2016-Fin & Admin01-Final Report. Based on the discussion, the Commission adopted the report. In addition, the following key points were discussed:
    a. The current two-year budget shall be included as an Annex to the report;
    b. The Commission agreed on the need to provide fixed yen-based salaries for Commission staff, but recognized that further discussion was needed to establish a mechanism for doing so, and therefore requested the Secretariat to prepare documents for holding such discussion in next Commission meeting;
    c. The Commission requested Japan to implement Staff Regulation 5, paragraph 5 of the NPFC Staff Regulations for tax reimbursement of Japanese staff who are subject to national income tax to secure good quality of Japanese staff for the effective operation of

the Secretariat. The procedure for the reimbursement should be agreed between Japan and the Secretariat;

d. The Commission deferred discussions to agenda item 10 on the Terms of Reference, particularly with regard to the selection of the Chair and Vice-Chair, and whether or not to open the meeting to observers; and

e. The Commission decided to discuss the NPFC Document Rules, which was originally scheduled for the Finance and Administration Special Working Group meeting but was deferred, under agenda item 11.

Agenda Item 7. Refinement of the Interim and Voluntary measures to make formal Conservation and Management Measures (CMM)

19. The leader of the Corresponding Group for the VME and Marine Species Interim and Voluntary Measures Refinement Process, Mr. Robert Day (Canada), presented the draft CMMs for Northwestern and Northeastern Pacific Ocean, referring to papers NPFC-2016-TCC01-WP08 (Rev 2a) and NPFC-2016-TCC01-WP08 (Rev 2b). The CMMs were adopted under agenda item 8.3.

Agenda Item 8. Review of CMMs

8.1 CMM 15-01

20. The Chair of the Technical and Compliance Committee presented the proposal for CMM 15-01 on Vessel Registry, referring to paper NPFC-2016-TCC01-WP07 (Rev 3). The Commission adopted CMM 2016-01 to replace CMM 15-01, pursuant to the revision of paragraph b of the Annex, regarding the requirement of the IMO number, from "shall ensure" to "should, to the extent possible, ensure."

8.2 CMM 15-02

21. The Commission discussed CMM 15-02 on Pacific saury. Based on the discussion the Commission adopted the CMM. The following point was also discussed:

a. Concern was expressed over the rapid increase in the number of Pacific saury fishing vessels operating in the Convention Area, and the Commission requested that the Technical and Compliance Committee discuss how this and other CMMs were implemented in future meetings;

b. China suggested that TCC should review each Members' compliance with this CMM. In this regard, China reported that it fully complied with this CMM. China noted that the number of registered vessels did not substantially increase. China also noted that the number of active fishing vessels has decreased since
2014; and

c. The Members confirmed that they will not substantially increase the number of registered vessels.

8.3 New CMMs

22. The Chair of the Technical and Compliance Committee presented the proposed CMM on transshipment, referring to paper NPFC-2016-TCC01-WP04 (Rev 2). The Commission adopted the CMM, pursuant to some minor editorial changes.

23. The Chair of the Technical and Compliance Committee presented the proposed CMM on High Seas Boarding and Inspection Procedures, referring to paper NPFC-2016- TCC01-WP05 (Rev 2). The Commission requested that the Technical and Compliance Committee hold further discussions to address the significant issues that were still outstanding and consider establishment of a Corresponding Group to that end.

24. The Commission discussed the proposed CMM for Bottom Fisheries in the Northwestern Pacific Ocean (NPFC-2016-TCC01-WP08 (Rev 2a)) and CMM for Protection of Vulnerable Marine Ecosystems in the Northeastern Pacific Ocean (NPFC-2016-TCC01-WP08 (Rev. 2b)). Based on the discussion, the Commission adopted the CMMs.

25. The Chair of the Technical and Compliance Committee presented the proposed CMM on Vessels without Nationality, referring to paper NPFC-2016-TCC01-WP06 (Rev 1). The Commission adopted the CMM.

26. The Chair of the Technical and Compliance Committee presented the proposed CMM on IUU Fishing, referring to paper NPFC-2016-TCC01-WP01 (Rev 3). The Commission adopted the CMM. The USA and Russia noted their concern that the term “flag Member” does not match the terminology used in the Convention. The Commission requested that the aforementioned Committee hold further discussions to clarify its definition and usage.

27. Most Members expressed their strong concern that rapid increase of catch of chub mackerel in the Convention Area would have adverse impact on recovery of the stock and requested to take precautionary approach according to Article 3h of the Convention. Japan also presented a proposed CMM for chub mackerel, referring to papers NPFC-2016- TCC01-IP05 and NPFC-2016-WP02 (Rev 1). China expressed its concern that it would be difficult for the Commission to take appropriate measures due to lack of scientific analysis and data on chub mackerel. Based on the discussion, the Commission adopted the CMM. In addition, the following key points were discussed:

a. The Commission noted that care should be taken to ensure that Members who were currently voluntarily refraining from fishing chub mackerel not be prohibited from future opportunities to do so; and
b. The Commission noted that similar to Pacific saury, Members should provide separate data for catches of chub mackerel in areas under national jurisdiction adjacent to the Convention Area and in the Convention Area.

Agenda Item 9. Adoption of budget

9.1 Budget for 2016-2017

9.2 Budget for 2018-2019

28. The Commission discussed the budget for 2016-17 and the budget for 2018-2019. The Commission adopted the budget for 2016-2017. Discussion of the budget for 2018-2019 with a view to its adoption will be held at the next Commission meeting.

Agenda Item 10. Cooperation with other organizations

29. The majority of the discussion was deferred. With respect to the invitation extended by the North Pacific Marine Science Organization (PICES) to NPFC to attend the International Symposium Drivers of Dynamics of Small Pelagic Fish Resources scheduled to be held on March 6 to 11, 2017, in Victoria, Canada, the Commission agreed to have the Secretariat attend and NPFC be a co-sponsor to the amount of 200,000 JPY.

Agenda Item 11. Other matters

30. The Executive Secretary presented a proposal from Ukraine to conduct fishing activities in the NPFC Convention Area, referring to paper NPFC-2016-IP02, seeking the guidance of the Commission on outstanding matters. Based on the guidance of the Commission, the Secretariat presented the proposed next step, which is to send a letter to the Ukraine fishing authority, and presented the proposed content of the abovementioned letter. The Commission endorsed the next step and content of the letter.

31. The Executive Secretary presented paper NPFC-2016-IP03 on clarification of the process for observers seeking the guidance of the Commission on the tenure for NGO observer status. The views of the Members were divided. Furthermore, it was noted that the Commission had only recently been established and, as such, it currently only had a small observer base. Therefore, the discussion was deferred to the next meeting of the Commission, with the Secretariat requested to look into the practices of other RFMOs.

32. The Secretariat presented the NPFC Document Rules, referring to paper NPFC-2016-SWG-Fin & Admin-WP01 (Rev1). The Commission adopted the paper, pursuant to the following revisions:
    a. That a provision be added requiring that two hard copies of meeting documents be made available to Heads of each Delegation at the meeting site; and
    b. That a provision be added requesting the Secretariat to consider development of electronic means (e.g., SharePoint) to make documents available, including during the meetings.

33. The Secretariat proposed the basic concept for the logo of the NPFC. The Commission endorsed the basic concept and requested that the Secretariat finalize the logo with a professional designer, which will then be decided by the Commission through correspondence.

34. The Commission discussed the Terms of Reference for the Scientific Committee. Based on the discussion, the Commission adopted the Terms of Reference, and decided the selection of Chair and Vice-Chair should be made by consensus in accordance with relevant provisions of the Convention and the Rules of Procedure of the Commission, unless the Commission decides otherwise.

35. The Commission discussed paper NPFC-2016-SWG-Fin & Admin-WP08 on Cooperating Non-Contracting Parties (CNCPs). Based on the discussion, the Commission deferred the decision of whether or not to adopt the paper until the next Commission meeting. The following key points were discussed:
    a. Further consideration is needed on whether the Commission shall accord CNCP status on a bi-annual basis or an annual basis;
    b. Further consideration is needed on whether or not CNCPs should be entitled to participate in meetings of the Commission, noting the points by USA that if CNCPs, were asked to commit to pay a contribution, as had been proposed, they would expect to attend meetings;
    c. A provision should be added regarding the provision of necessary information on CMMs by the Secretariat to CNCPs to ensure their compliance; and
    d. It may be worthwhile discussing some of the points in the paper at the Technical and Compliance Committee, prior to discussion at the next Commission meeting.

36. The Commission discussed the Terms of Reference for the Finance and Administration Committee (FAC). Based on the discussion, the Commission adopted the Terms of Reference. In addition, the following key points were discussed:

a. The meeting will be made open to Members of the Commission, CNCPs, and observer States; and
b. The paragraph on the Selection and Term of the Chair and Vice-Chair was revised to be consistent with the equivalent paragraph of the Terms of Reference for the other standing Subsidiary Committees.

Agenda Item 12. Next Meeting

37. The following schedule and venues were recommended:
    a. TCC: In Japan from 10 July through the morning of 12 July 2017;
    b. FAC: In Japan on the afternoon of 12 July 2017 (with an evening session, if necessary);
    c. Commission: In Japan from 13 to 15 July 2017; and
    d. SC and SSCs: In Shanghai, China, in April or May 2017 (the Secretariat will inform participants of the specific timing through correspondence).

Agenda Item 13. Adoption of the report

38. The Final Report was adopted by consensus.

Agenda Item 14. Close of Meeting

39. The meeting closed at 14:42 on 26 August 2016.

ANNEXES

ANNEX A

FISHERIES AGENCY

MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES, GOVERNMENT OF JAPAN

2-1, 1-Chome, Kasumigaseki, Chiyoda-ku, Tokyo 100-8907 Japan TEL: +81-3-3502-8111 EXT: 6747

NPFC Second Commission Meeting

Tokyo, Japan 24-26 August 2016

OPENING REMARKS

BY

DIRECTOR-GENERAL KAZUO SATO

Good afternoon. I am Kazuo Sato, Director-General of the Fisheries Agency of Japan, representing the host country of the 2nd Meeting of the Commission. I am pleased to welcome you all in Tokyo again following the last year's 1st Commission Meeting. I would like to send you my warmest welcome to Tokyo and the NPFC.

After the 1st Meeting of the Commission last year, the Secretariat was established in the Tokyo University of Marine Science and Technology, and the Executive Secretary and all staff have started their work there. I am pleased that full-fledged activities have started to achieve sustainable use of the fisheries resources in the Convention Area, the high seas area of North Pacific Ocean.

It is said that the North Pacific Ocean has the highest productivity in the world, and many fish stocks have been caught by the Members of the Commission there, including bottom fish stocks, such as North Pacific Armorhead, and pelagic fish stocks, such as Pacific saury, mackerels and squids. Strong Commitment by Members of the Commission is essential in order to achieve the sustainable use of the fisheries resources in this rich ocean. Results of this Meeting starting from today will be the significant step toward it.

For Pacific saury, NPFC has already taken the first step. Last year, the Commission adopted the Conservation and Management Measure for Pacific saury, and, in that measure, Members agreed to refrain from rapid expansion of the number of fishing vessels to fish this species. Pacific

saury is one of the important fish species that has been incorporated into the food culture of Japan. Since both the number of the Pacific saury migrating to Japanese coastal waters and the catch amount of this species by the Japanese fishermen were at low level last year, the NPFC draws more and more attention not only by Japanese fishermen, but also consumers and media. In this Commission Meeting, it is important that the Commission affirms each Member has not increased the number of the vessels for Pacific saury and confirms the progress of the Scientific Committee to complete the stock assessment by 2017.

On the other hand, I regret to inform that many fishing vessels which are falsifying their names and are suspected as illegal vessels have been sighted recently by the Japan's fisheries enforcement vessels in the Convention Area. My desire is that the NPFC establishes measures to combat IUU fishing to eliminate the IUU vessels from the Convention Area as soon as possible. As a first step, Japan has submitted a proposal on the establishment of the NPFC IUU vessel list. I ask for Members' support to this proposal.

There is another concern on chub mackerel. Chub mackerel is found and spawns in the Japanese coastal waters, and a part of it migrates into the high seas area to Russian coastal waters. Japan has been implementing domestic TAC scheme for management of the stock, and thanks to the tremendous efforts by Japanese fishermen, the stock assessments in recent years for this species have showed some signs of recovery. I am very much concerned that the rapid expansion of chub mackerel catch in the Convention Area adversely affects the stock recovery and undermines the efforts made by Japanese fishermen. From this concern, Japan has submitted another proposal on the new Conservation and Management Measure for chub mackerel to refrain from expansion of the number of the vessels to fish chub mackerel until the Scientific Committee completes the stock assessment. I again ask for Members' support to this proposal.

Japan led the negotiation on development of the Convention and has provided support to the establishment of NPFC, including having served as the Interim Secretariat as well as contributions by conducting scientific research using research vessels. Japan will make a further support as much as possible, as a Member of the Commission and the host country of the Secretariat, for the prompt and effective fisheries resources management by the NPFC.

I wish that Members cooperate with each other to overcome difficulties and that the NPFC will achieve a significant progress in this Meeting.

Thank you.

ANNEX B

NORTH PACIFIC FISHERIES COMMISSION
SCIENTIFIC COMMITTEE
TERMS OF REFERENCE

Context

Article 7(3b) of the Convention states that the Commission shall "adopt a plan of work and terms of reference for the Scientific Committee, for the Technical and Compliance Committee and, as necessary, for other subsidiary bodies."

Article 10(1) of the Convention states that "the Scientific Committee shall provide scientific advice and recommendations in accordance with the terms of reference for the Committee to be adopted at the first regular meeting of the Commission and as may be amended from time to time."

Purpose

The Scientific Committee should provide a forum for consultation and cooperation among Contracting Parties and Fishing Entities (members) with respect to the evaluation and exchange of scientific information relating to the fisheries of the Convention Area, and to encourage and promote cooperation among the members in scientific research designed to fill gaps in knowledge pertaining to these matters.

Functions

In accordance with Article 10(4) of the Convention, the functions of the Scientific Committee shall be to:

(a) Develop and maintain a research plan that would be presented to the Commission, including specific issues and items to be addressed by the scientific experts or by other organizations or individuals, as appropriate, and identify data needs and coordinate activities that meet those needs;

(b) regularly plan, conduct and review the scientific assessments of the status of fisheries resources in the Convention Area, identify actions required for their conservation and management, and provide advice and recommendations to the Commission;

(c) collect, analyze and disseminate relevant information;

(d) assess the impacts of fishing activities on fisheries resources and species belonging to the same ecosystem or dependent upon or associated with the target stocks;

(e) develop a process to identify vulnerable marine ecosystems, including relevant criteria for doing so, and identify, based on the best scientific information available,

areas or features where these ecosystems are known to occur, or are likely to occur, and the location of bottom fisheries in relation to these areas or features, taking due account of the need to protect confidential information;

(f) identify and advise the Commission on additional indicator species for vulnerable marine ecosystems for which directed fishing shall be prohibited;

(g) establish science-based standards and criteria to determine if bottom fishing activities are likely to produce significant adverse impacts on vulnerable marine ecosystems or marine species in a given area based on international standards such as the FAO International Guidelines and make recommendation for measures to avoid such impacts;

(h) review any assessments, determinations and management measures and make any necessary recommendation in order to attain the objective of this Convention;

(i) develop rules and standards, for adoption by the Commission, for the collection, verification, reporting, and the security of, exchange of, access to and dissemination of data on fisheries resources, species belonging to the same ecosystem, or dependent upon or associated with the target stocks and fishing activities in the Convention Area;

(j) to the extent practicable, provide analysis to the Commission of alternative conservation and management measures that estimates the extent to which each alternative would achieve the objectives of any management strategy adopted or under consideration by the Commission; and

(k) provide such other scientific advice to the Commission as it considers appropriate or as may be required by the Commission.

Consistent with Article 7(3-c), the Commission shall refer to the Scientific Committee any question pertaining to the scientific basis for the decisions the Commission may need to take concerning conserving and managing fisheries resources and species belonging to the same ecosystem or dependent upon or associated with the target stocks and assessing and addressing the impacts of fishing activities on vulnerable marine ecosystems.

In accordance with Article 10(6), the Scientific Committee "shall not duplicate the activities of other scientific organizations and arrangements that cover the Convention Area." Further, consistent with Article 21, the Committee shall seek, with the approval of the Commission, to develop cooperative working relationships with other intergovernmental organizations that can contribute to its work.

Structure

1. Membership

The Scientific Committee shall be composed of Members of the Commission. Members are encouraged to identify a focal point to facilitate the operations of the Committee.

Scientific Committee participants would have a science background. Invitation and participation of non-members in the meetings and other activities of the Committee are subject to relevant provisions in Rule 9 of the Commission's Rules of Procedure.

2. Chair and Vice-Chair

i. Selection and Term

The Chair and Vice-Chair of the SC will be selected by consensus in accordance with relevant provisions of the Convention and the Rules of Procedure of the Commission, unless the Commission decides otherwise.

The Chair's term will begin at his or her first Committee meeting. In the case that the Chair is unable or unwilling to serve a full term, the Vice-Chair will assume the Chair's position for a two-year term. The Vice-Chair would succeed the Chair after the Chair's term expires and a new Vice-Chair would be identified.

ii. Duties of the Chair

- Coordinate the meeting schedule and agenda preparation
- Chair Committee meetings as well as prepare reports of the meetings;
- Foster constructive and active dialogue at Committee meetings;
- Coordinate the development of specific deliverables identified in the Committee's functions, as per Article 10 in the Convention;
- Liaise with the Commission Chair, TCC Chair, and other relevant international organizations as appropriate to enhance the quality of activities;
- Represent or designate a competent person to represent the Committee to participate, as appropriate, in various regional and international meetings and fora; and,
- Invite, as appropriate, non-members to contribute to the Committee's meeting agendas and activities.

3. Meetings

Consistent with Article 10 in the Convention, the Scientific Committee shall meet, unless the Commission otherwise decides, at least once every two years, and prior to the regular meeting of the Commission.

4. Sub-Committees or Working Groups

Consistent with Article 6 in the Convention, the Committee may establish working groups and may seek external advice in accordance with any guidance provided by the Commission.

Agendas and Meeting Conduct

The Scientific Committee will endeavour to develop agendas and conduct its meetings in a manner that is consistent with Rule 5 in the Commission's Rules of Procedure.

Decisions

Decisions will be adopted in a manner that is consistent with Article 8 of the Convention and Rule 2 in the NPFC Rules of Procedure. Consistent with Article 8, as a general rule, the Committee shall strive to make its decisions by consensus.

Language

In accordance with Rule 7 in the Rules of Procedure, English shall be the working language of the Committee. Any other language may be used on condition that persons doing so will provide interpreters.

Records and Reports

In accordance with Article 6(2) in the Convention, after each meeting, the Committee will provide a report on its work to the Commission that includes, where appropriate, advice and recommendations to the Commission.

As per Article 10(3) in the Convention, the Committee shall make every effort to adopt its reports by consensus. If every effort to achieve consensus has failed, the report shall indicate the majority and minority views and may include the differing views of the representatives of the members on all or any part of the report.

These Terms of Reference are subject to approval by the Commission. They may be revised by the Committee based on consensus and subsequent approval by the Commission.

ANNEX C

NORTH PACIFIC FISHERIES COMMISSION
TECHNICAL AND COMPLIANCE COMMITTEE
TERMS OF REFERENCE

Context

Article 7(3b) of the Convention states that the Commission shall "adopt a plan of work and terms of reference for the Scientific Committee, for the Technical and Compliance Committee and, as necessary, for other subsidiary bodies."

Article 11 of the Convention states that the functions of the "Technical and Compliance Committee" shall be to:

(a) Monitor and review compliance with conservation and management measures adopted by the Commission and make recommendations to the Commission as may be necessary; and

(b) Review the implementation of cooperative measures for monitoring, control, surveillance and enforcement adopted by the Commission and make recommendations to the Commission as may be necessary.

Purpose

The Technical and Compliance Committee should provide a forum for consultation and cooperation among Members of the Commission with respect to the evaluation and exchange of compliance information relating to the fisheries of the Convention Area, and to encourage and promote cooperation among the Members.

Functions

In accordance with Article 11(4) of the Convention, when carrying out its functions the Technical and Compliance Committee shall:

(a) Provide a forum for exchange of information concerning the means by which Members of the Commission are implementing the conservation and management measures adopted by the Commission in the Convention Area and complementary measures in adjacent waters as appropriate;

(b) Provide a forum for the exchange of information on enforcement, including enforcement efforts, strategies and plans;

(c) Receive and review reports from each Member of the Commission relating to measures that the Member has taken to monitor, investigate and penalize violations of provisions of this Convention and measures adopted pursuant to this Convention;

(d) Report to the Commission its findings or conclusions on the extent of compliance with conservation and management measures;

(e) Make recommendations to the Commission on matters relating to monitoring, control, surveillance and enforcement;

(f) Develop rules and procedures governing the use of data and other information for monitoring, control and surveillance purposes; and

(g) Consider and/or investigate any other matters as may be referred to it by the Commission.

Structure

1. Membership and Representation

TCC shall be composed of Members of the Commission. Members are encouraged to identify a point of contact to facilitate the operations of the Committee. Chosen focal point Members must have expertise in fisheries management or compliance. Representation and official contacts should be consistent with Rule 1 in the Commission's Rules of Procedure. Invitation and participation of non-members in the meetings and other activities of the Committee are subject to relevant provisions in Rule 9 of the Rules of Procedure.

2. Chair and Vice-Chair

i. Selection and Term

The Chair and Vice-Chair of the TCC will be selected by consensus in accordance with relevant provisions of the Convention and the Rules of Procedure of the Commission, unless the Commission decides otherwise.

ii. Duties of the Chair

- Coordinate the meeting schedule and agenda preparation
- Chair Committee meetings as well as prepare reports of the meetings;
- Foster constructive and active dialogue at Committee meetings;
- Coordinate the development of specific deliverables identified in the Committee's functions, as per Article 11 in the Convention;
- Liaise with the Commission Chair, SC Chair, and other relevant international organizations as appropriate to enhance the quality of activities;
- Represent or designate a competent person to represent the Committee to participate, as appropriate, in various regional and international meetings and fora; and,
- Invite, as appropriate, non-members to contribute to the Committee's meeting agendas and activities.

3. *Meetings*
   Consistent with Article 11 in the Convention, the TC Committee shall meet, unless the Commission otherwise decides, at least once every two years, and prior to the regular meeting of the Commission.

4. *Sub-Committees or Working Groups*
   Consistent with Article 6 in the Convention, the Committee may establish working groups and may seek external advice in accordance with any guidance provided by the Commission.

Agendas and Meeting Conduct

The TC Committee will endeavour to develop agendas and conduct its meetings in a manner that is consistent with Rule 5 in the Commission's Rules of Procedure.

Recommendations

Recommendations of TCC will be adopted in a manner that is consistent with Article 8 of the Convention and Rule 2 in the NPFC Rules of Procedure. Consistent with Article 8, as a general rule, the Committee shall strive to make its recommendations by consensus.

Language

In accordance with Rule 7 in the Rules of Procedure, English shall be the working language of the Committee. Any other language may be used on condition that persons doing so will provide interpreters.

Records and Reports

In accordance with Article 6(2) in the Convention, after each meeting, the Committee will provide a report on its work to the Commission that includes, where appropriate, advice and recommendations to the Commission.

As per Article 11(3) in the Convention, the Committee shall make every effort to adopt its reports by consensus. If every effort to achieve consensus has failed, the report shall indicate the majority and minority views and may include the differing views of the representatives of the Members on all or any part of the report.

These Terms of Reference are subject to approval by the Commission. They may be revised by the Committee based on consensus and subsequent approval by the Commission.

ANNEX D

NORTH PACIFIC FISHERIES COMMISSION
FINANCE AND ADMINISTRATION COMMITTEE
TERMS OF REFERENCE

1. The North Pacific Fisheries Commission (NPFC) established the standing Finance and Administration Committee (FAC) as a subsidiary body pursuant to Article 6 paragraph 1 of the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean at the second Annual Session of the Commission in Tokyo, Japan. The purpose of the FAC is to provide advice and recommendations to the Commission on matters related to the budget, finance and administration of the Commission.

2. Membership of the FAC shall be open to each member of the Commission.

3. The Chair and Vice-Chair of the FAC will be selected by consensus in accordance with relevant provisions of the Convention and the Rules of Procedure of the Commission, unless the Commission decides otherwise.

   The Chair's term will begin at his or her first Committee meeting. In the case that the Chair is unable or unwilling to serve a full term, the Vice-Chair will assume the Chair's position for a two-year term. The Vice-Chair would succeed the Chair after the Chair's term expires and a new Vice-Chair would be identified.

4. The Commission requests the FAC to convene in the day or days prior to the commencement of the Annual Regular Session of the Commission. If necessary, sessions of the FAC may be continued or convened during a regular session of the Commission or inter-sessionally, subject to Article 5 of the Convention and Rule 2 of the NPFC Rules of Procedure. The meeting will be open to Members of the Commission, CNCPs, and observer States unless decided otherwise by the Members of the Commission.

5. The FAC shall make every effort to adopt a summary report of each of its meetings by consensus for transmission to the Commission.

6. The FAC may consider developing its rules of procedure, which must be agreed by the Commission, taking into consideration the rules of procedure of other subsidiary bodies of the Commission. In the meantime a quorum for the FAC shall be 4 Committee members.

ANNEX E
CMM 2016-01

CONSERVATION AND MANAGEMENT MEASURE ON INFORMATION REQUIREMENTS FOR VESSEL REGISTRATION

The North Pacific Fisheries Commission (NPFC),

Recalling Article 4 of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas of 24 November 1993 that stipulates to maintain a record of fishing vessels entitled to fly its flag and authorized to be used for fishing on the high seas, and to take such measures as may be necessary to ensure that all such fishing vessels are entered in that record,

Recognizing Article 7, paragraph 2 (d) of the Convention regarding the establishment of appropriate cooperative mechanisms for effective monitoring, control and surveillance to ensure enforcement of the conservation and management measures adopted by the Commission including mechanisms to prevent, deter and eliminate IUU fishing,

Reaffirming that Article 13, paragraph 1 of the Convention that members of the Commission shall take necessary measures to ensure that fishing vessels entitled to fly its flag operating in the Convention Area comply with the provisions of the Convention and measures adopted pursuant to the Convention and such vessels do not engage in any activities that undermine the effectiveness of such measures and do not conduct unauthorized fishing activities within areas under national jurisdiction of another State adjacent to the Convention Area,

Also reaffirming that Article 13, paragraph 2 of the Convention that no members of the Commission shall allow any fishing vessel entitled to fly its flag to be used for fishing activities in the Convention Area unless it has been authorized to do so by the appropriate authority or authorities of that member of the Convention. Each member of the Commission shall authorize the use of vessels entitled to fly its flag in the Convention Area only where it is able to exercise effectively its responsibilities in respect of those vessels under this Convention, the 1982 Convention and the 1995 Agreement,

Also recognizing that members of the Commission have the need to conduct transshipment with carrier vessels that are flagged to non-members,

Adopts the following conservation and management measures in accordance with Article 7, Article 13, paragraph 8 and Article 15 of the Convention:

For the purpose of the effective implementation of the Convention, each Commission member or non-Contracting Party shall:

NPFC Vessel Registry

1. Maintain a record of fishing vessels entitled to fly its flag and authorized to be used for fishing activities in the Convention Area in accordance with the information requirements in the Annex.

2. Provide annually by the end of February (same with the proposed deadline for Annual Reports) to the Commission, information in the Annex with respect to each fishing vessel entered in the record required to be maintained under the above paragraph and shall promptly notify the Commission of any modifications to this information.

3. Provide to the Commission, as part of the annual report required pursuant to Article 16 of the Convention, the names of the fishing vessels entered in the record that conducted fishing activities during the previous calendar year.

4. Also inform the Commission promptly of:
   (a) any additions to the record; and
   (b) any deletions from the record, specifying which of the following reasons is applicable:
   (i) the voluntary relinquishment of the fishing authorization by the fishing vessel owner or operator;
   (ii) the withdrawal or non-renewal of the fishing authorization issued in respect of the fishing vessel under Article 13 paragraph 2 of the Convention;
   (iii) the fact that the fishing vessel concerned is no longer entitled to fly its flag;
   (iv) the scrapping, decommissioning or loss of the fishing vessel concerned; or
   (v) any other grounds, with a specific explanation provided.

NPFC Interim Register of non-Member[2] Carrier Vessels

5. The Commission hereby establishes an Interim Register of non-members (the "Interim Register"), applicable from 2017 to 2019.

6. Carrier vessels that are included by the Commission on the Interim Register shall be allowed to be used in the Convention Area to receive transshipments of fisheries resources caught in the Convention Area and from fishing vessels flying the flag of Commission members or cooperating non-Contracting Parties.

7. Any Commission member or cooperating non-Contracting Party may at any time submit to the Executive Secretary, in electronic format if possible, a list of any carrier vessels that it wishes to be included on the Interim Register. This List shall include the information requirements in the Annex.

[2] For the purpose of this CMM, non-members mean those states that are not Commission members or cooperating non-Contracting Parties

8. The Commission member or cooperating non-Contracting Parties recommending vessels to be included on the Register shall attest that the vessel or vessels being recommended are not vessels:
   (a) with a history of illegal, unreported or unregulated (IUU) fishing, unless the ownership of the vessel has subsequently changed and the new owner has provided sufficient evidence demonstrating that the previous owner or operator has no legal, beneficial or financial interest in, or control of the vessels, or Commission members or cooperating non-Contracting Parties concerned is satisfied that, having taken into account all relevant facts, the vessel is no longer engaged in or associated with IUU fishing;
   (b) that are currently listed on any of the IUU vessel lists adopted by regional fishery management organizations (RFMOs); or
   (c) that were removed from the Interim Register pursuant to paragraph 15 within one year.

9. It shall be a condition for inclusion on the Interim Register that the owner or manager/operator of the vessel provides a written undertaking, addressed to the Commission, that the owner, manager/operator and master of the carrier vessel will fully comply with all applicable decisions of the Commission, including conservation and management measures. Any reference in Commission decisions to member-flagged vessels shall be construed to include non-member flagged-vessels for the purposes of these written undertakings.

10. It shall be the responsibility of the owner or manager/operator to ensure that any such undertaking is compliant with domestic laws of its flag State.

11. The Secretariat will post on the Commission website a list of all the applicable conservation and management measures and other applicable Commission decisions that the written undertaking must cover. It will also be a condition that the owner, manager/operator or master of the carrier vessel will notify the Secretariat of any changes to the information provided under paragraph 7 within 15 days of the change.

12. Failure by the owner, manager/operator or master of a vessel on the Register to fully comply with applicable decisions of the Commission, including conservation and management measures, shall constitute an appropriate basis for placement of such vessel on the Commission's Draft IUU Vessel List in accordance with the relevant conservation and management measure for establishing the NPFC IUU Vessel list.

13. Within 7 business days of receipt of complete information for a carrier vessel under paragraphs 7 to 9, the Secretariat will include the vessel on the Interim Register and within 7 business days of receipt of any changes to such information, the Secretariat will include the updated information in the Interim Register. For each vessel, the Interim Register will include all the information listed in the Annex, a copy of the written undertaking provided under paragraph 9, and the Commission members or cooperating non-Contracting Parties that requested inclusion of the vessel on the Interim Register.

14. As soon as possible after receipt of complete information under paragraph 7 to 9, the Secretariat shall notify the flag State and provide an opportunity for the flag State to convey its position for the inclusion of its vessel on the Interim Registry.

15. The Commission will periodically monitor the IUU vessel lists maintained by RFMOs. At any time that a vessel on the Interim Register is also on one of those IUU vessel lists, the Secretariat will:
    (a) notify Commission member, cooperating non-Contracting Parties and the owner of the vessel of its finding and that the vessel will be removed from the Interim Register, effective 30 days from the date of the notice; and
    (b) 30 days from the notice given under sub-paragraph (a), remove the vessel from the Register.

16. The Commission shall monitor the performance of the vessels on the Interim Register with respect to the written undertakings submitted under paragraph 9. If at any time a Commission member or cooperating non-Contracting Party finds evidence that the owner, manager/operator or master of a vessel on the Register has failed to fully discharge those undertakings:
    (a) the Commission member or cooperating non-Contracting Party shall immediately submit such evidence to the Secretariat;
    (b) the Secretariat will immediately circulate such evidence to the Commission members or cooperating non-Contracting Parties;
    (c) the Commission shall review the evidence and decide whether or not to remove the vessel from the Interim Register. If the Commission is to next meet between 14 and 60 days after the circulation made under paragraph 15(b), such decision shall be made in the next session of the Commission, otherwise it shall be made in accordance with the Commission Rules of Procedure as they relate to inter-sessional decision-making;
    (d) if the Commission decides to remove a vessel from the Interim Register, the Secretariat will notify the owner of the vessel of the decision within 7 days and remove the vessel from the Register 60 days after the Commission's decision.
    (e) The Executive Secretary shall advise all Commission members or cooperating non–Contracting Parties and the flag State of the completion of action taken under paragraph 16 (d).

17. The Interim Register shall expire 60 days after the Annual Regular Session of the Commission in 2019 unless the Commission decides otherwise at its Commission Meeting in 2019. The TCC will conduct a review in 2018 and 2019 of the non-member flagged fleet including an assessment of potential economic impacts to NPFC target fisheries resources in the Convention Area and unforeseen circumstances that could arise through prohibition of non-members carriers.

General

The Commission shall:

18. Maintain its own record of the vessels based on the information provided to it pursuant to the above paragraphs 1-16 and make the record publicly available.

19. Also provide to any member of the Commission, upon request, information about any vessel entered on the Commission record that is not otherwise publicly available.

20. This CMM shall replace the NPFC CMM 15-01.

Annex

Vessel Information Requirements

a) Name of fishing vessel, registration number, previous names (if known), and port of registry;
b) IMO number (if eligible);
   To allow the necessary time for members of the Commission to obtain an IMO number for eligible vessels that do not already have one, this point of this Annex on IMO number is effective as of 1 January 2018. As of this date, members of the Commission should, to the extent possible, ensure that all their fishing vessels that are registered on the NPFC Record of fishing vessels have IMO numbers issued to them. This point of this Annex on IMO number does not apply to vessel which are not eligible to receive IMO numbers.
c) Name and address of owner or owners;
d) Name and citizenship of master;
e) Previous flag (if any);
f) International Radio Call Sign;
g) Vessel communication types and numbers including, when available, any satellite-based telephony or data services/devices;
h) Side view color photograph of vessel showing full length of vessel and vessel name and markings;
i) Where and when built;
j) Type of vessel, as specified in standard abbreviations under the current FAO International Standard Statistical Classification of Fishery Vessels by Vessel Types (ISSCFV);
k) Normal crew complement;
l) Type of fishing method or methods, as specified in standard abbreviations under the current FAO International Standard Statistical Classification of Fishing Gear (ISSCFG);
m) Length, including type of length and unit of measurement;
n) Depth, including type of depth and unit of measurement;
o) Beam, including type of beam and unit of measurement;
p) Gross register tonnage, or gross tonnage (specify which);
q) Power of main engine or engines, including unit of measurement;
r) The nature of the authorization to fish granted by the flag State, such as type or method of fisheries authorized and main target species;
s) Fish hold capacity, in cubic meters;
t) Freezer type and capacity, including unit of measurement.

ANNEX F
CMM 2016-02

CONSERVATION AND MANAGEMENT MEASURE TO ESTABLISH A LIST OF VESSELS PRESUMED TO HAVE CARRIED OUT ILLEGAL, UNREPORTED AND UNREGULATED FISHING ACTIVITIES IN THE CONVENTION AREA OF THE NORTH PACIFIC FISHERIES COMMISSION

The North Pacific Fisheries Commission (NPFC):

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

Concerned that IUU fishing activities in the Convention Area undermine the effectiveness of the conservation measures adopted by the NPFC;

Further concerned that there is a possibility that vessel owners engaged in such fishing activities may have re-flagged their vessels to avoid compliance with NPFC measures;

Determined to address the challenge of an increase in IUU fishing activities by way of measures to be applied in respect to vessels, without prejudice to further measures adopted in respect of Members, Cooperating Non-Contracting Parties (CNCPs) and non-Contracting Parties under the relevant NPFC instruments;

Considering the action undertaken in other regional fisheries organizations to address this issue;

Conscious of the need to address, as a matter of priority, the issue of vessels conducting IUU fishing activities;

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

Recalling Articles 13, 14, 15 and 17 of the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean (hereinafter called the "Convention") regarding the flag State duties, port State duties, duties of fishing entities and provisions for compliance and enforcement;

Adopts the following conservation and management measure in accordance with Article 7 of the Convention:

Identification of IUU activities

1. At each meeting, the Commission will identify those vessels which have engaged in fishing activities for species covered by the Convention within the Convention Area in a manner which has undermined the effectiveness of the Convention and the NPFC measures in force, and shall establish, and, as necessary, amend in subsequently, a list of such vessels (the IUU Vessel List), in accordance with the procedures and criteria set out in this conservation measure.

2. This identification shall be suitably documented, *inter alia*, on reports from Members/CNCPs relating to NPFC Conservation measures in force, trade information obtained on the basis of relevant trade statistics such as Food and Agriculture Organization of the United Nations (FAO) data, statistical documents and other national or international verifiable statistics, as well as any other information obtained from port States and/or gathered from the fishing grounds that is suitably documented. Information from Members/CNCPs should be provided in the format approved by the Commission.

3. For the purposes of this conservation measure, vessels fishing for species covered by the Convention are presumed to have carried out IUU fishing activities, as described in the IPOA on IUU fishing, in the Convention Area when a Member/CNCP presents suitably documented information that such vessels, *inter alia*:
    a. Harvest species covered by the Convention in the Convention Area and are not on the NPFC record of authorized vessels or
    b. Engage in fishing for fishery resources when the Member or CNCP, under whose flag the vessel is sailing, has exhausted or has no quotas, catch limit or effort allocation, including, if applicable, those received from another Member/CNCP under relevant NPFC conservation measures, or
    c. Do not record or report their catches made in the Convention Area consistent with NPFC measures, or make false reports, or
    d. Take and land undersized fish in contravention of relevant NPFC conservation measures, or
    e. Fish in a closed area or during a closed season in contravention of relevant NPFC conservation measures, or
    f. Use prohibited fishing gear in contravention of relevant NPFC conservation measures, or
    g. Tranship with, participate in joint fishing operations with, support or re-supply vessels included in the IUU Vessel List, or
    h. Are without nationality and harvest species covered by the Convention in the Convention Area, or
    i. Engage in any other fishing activities that undermine the provisions of the Convention or any other NPFC conservation measures.

4. If a Member/CNCP has not taken such measures as may be necessary so that fishing vessels entitled to fly its flag avoid conducting unauthorized fishing activities within areas under national jurisdiction of another State adjacent to the Convention Area in accordance with Article 13, the Member/CNCP, within whose areas under national jurisdiction the unauthorized fishing activities were conducted, may submit a proposal for listing the vessels on the draft IUU List if consultation with the Member/CNCP has not resolved the matter. Relevant procedures set out in paragraph 5 below shall apply for proposals under this paragraph.

Information on alleged IUU fishing activities

5. At least 70 days before the meeting of the Technical and Compliance Committee (TCC), Members/CNCPs shall transmit to the Executive Secretary their list of vessels presumed to be carrying out IUU activities in the Convention Area during the years from the previous meeting to the current year, accompanied by suitably documented information, as provided in para 2, concerning the presumption of this IUU activity.

6. Before or at the same time as transmitting a list of presumed IUU vessels to the Executive Secretary, the Member/CNCP shall notify, either directly or through the Executive Secretary, the relevant Member/CNCP/Non-Contracting Party of a vessel's inclusion on this list and provide a copy of the pertinent suitably documented information. The Member/CNCP/Non-Contracting Party shall promptly acknowledge receipt of the notification. If no acknowledgement is received within 10 days of the date of transmittal, the Executive Secretary, Member/CNCP shall retransmit the notification through an alternative means of communication.

Draft IUU Vessel List

7. The Executive Secretary shall draw up a draft IUU Vessel List incorporating the lists of vessels and suitably documented information received pursuant to para 5, and any other suitably documented information at his disposal, and shall transmit it, together with all the supporting information provided, to all Members/CNCPs, as well as to non-Contracting Parties with vessels on the list, at least 55 days before the TCC's meeting except otherwise decided by the TCC.

8. The Executive Secretary shall request each Member/CNCP/non-Contracting Party with vessels on the draft IUU Vessel List to notify the owner of the vessels of their inclusion in that list, and of the consequences of their inclusion being confirmed in the IUU Vessel List.

9. Upon receipt of the draft IUU Vessel List, Members/CNCPs shall closely monitor the vessels included in that list in order to follow their activities and possible changes of name, flag or registered owner.

10. As appropriate, Members/CNCPs/non-Contracting Parties with vessels on the list should transmit, at least 10 days before the TCC's meeting, their comments to the Executive Secretary, including suitably documented information, showing that the vessels have

fished in a manner consistent with NPFC conservation measures or have fished exclusively for species not covered by the Convention.

11. The Executive Secretary shall re-circulate the draft IUU Vessel List, 7 days in advance of the TCC's meeting, to the Members/CNCPs/non-Contracting Parties concerned, together with all the suitably documented information provided pursuant to paras 5 and 10 above.

12. Members/CNCPs/non-Contracting Parties may at any time submit to the Executive Secretary any additional suitably documented information regarding any vessels on the draft IUU Vessel List. The Executive Secretary shall circulate this additional information to all Members/CNCPs and to the non-Contracting Parties concerned immediately upon receipt of such information.

Provisional and current IUU Vessel List

13. The NPFC's IUU Vessel List adopted at the previous meeting of the Commission, as well as any new suitably documented information regarding this list, including intersessional amendments, shall be transmitted to Members/CNCPs and the non-Contracting Parties concerned in conjunction with the draft IUU Vessel List and materials outlined in para 7.

14. Members/CNCPs/non-Contracting Parties with vessels on the current NPFC IUU Vessel List should transmit at least 30 days before the meeting of the TCC, but may submit at any time, to the Executive Secretary suitably documented information regarding any of the vessels on the current NPFC IUU Vessel List, including, where appropriate, suitably documented information as provided for in paragraph 28. The Executive Secretary shall re-circulate the current NPFC IUU Vessel List two weeks in advance of the meeting of the TCC to the Members/CNCPs and non-Contracting Parties concerned, together with all the information provided pursuant to paragraph 13 and this paragraph.

15. At its meeting, the TCC shall:
    i). following consideration of the draft IUU Vessel List and the suitably documented information circulated under paras 7, 11 and 12, adopt a Provisional IUU Vessel List; and
    ii). following consideration of the current NPFC IUU Vessel List and the suitably documented information circulated under paras 13 and 14, recommend to the Commission which, if any, vessels should be removed from the current NPFC IUU Vessel List.

16. The TCC shall not include a vessel on the Provisional IUU Vessel List if the Member/CNCP/non-Contracting Party, under whose flag the vessel is sailing, demonstrates that:
    a. The vessel fished in a manner consistent with the Convention and NPFC Conservation Measures or have fished exclusively for species not covered by the NPFC Convention, or
    b. Effective action has been taken in response to the IUU fishing activities in question, such as, *inter alia*, prosecution or the imposition of sanctions of adequate severity.

17. The TCC shall not include a vessel on the Provisional IUU Vessel List if the notifying Member/CNCP did not follow the provisions of para 6.

18. The TCC shall recommend removal of a vessel from the current NPFC IUU Vessel List only if the Member/CNCP/Non-Contracting Party, under whose flag the vessel is sailing, submits to the Executive Secretary the information provided in para 28 of this measure.

19. Following the examination referred to in para 15, the TCC shall submit the Provisional IUU Vessel List to the Commission for its consideration, and as appropriate, recommend any proposed changes to the current NPFC IUU Vessel List.

20. The draft IUU Vessel List, Provisional IUU Vessel List, and the NPFC IUU Vessel List shall contain the following details for each vessel:
    (i) name and previous names, if any;
    (ii) flag and previous flags, if any;
    (iii) owner and previous owners, including beneficial owners, if any;
    (iv) operator and previous operators, if any;
    (v) call sign and previous call signs, if any;
    (vi) Lloyds/IMO number, if any;
    (vii) photographs, where available;
    (viii) date first included on the IUU Vessel List;
    (ix) summary of activities which justify inclusion of the vessel on the list, together with references to all relevant documents informing of and evidencing those activities; and
    (x) date and subsequent sightings of the vessels, if any, and any other related activities.

NPFC IUU Vessel List

21. At its meeting the Commission shall review the Provisional IUU Vessel List, taking into account any new suitably documented information related to vessels on the Provisional IUU Vessel List, and any recommendations to amend the current NPFC IUU Vessel List made pursuant to paragraph 19 above, and adopt a new NPFC IUU Vessel List. To the maximum extent possible Members/CNCPs/non-Contracting Parties concerned shall provide any new suitably documented information at least two weeks before the meeting of the Commission.

22. Upon adopting the new NPFC IUU Vessel List, the Commission shall request Members/CNCPs/non-Contracting Parties with vessels on the NPFC IUU Vessel List to:
    a. notify the owner of the vessels of its inclusion on the NPFC IUU Vessel List and the consequences that result from being included in the list, and
    b. take all the necessary measures to eliminate these IUU fishing activities, including, if necessary, the withdrawal of the registration or the fishing licenses of these vessels, and to inform the Commission of the measures taken in this respect.

23. Members/CNCPs shall take all necessary non-discriminatory measures under their applicable legislation, international law and each Members/CNCPs' international obligations, and pursuant to paras 56 and 66 of the IPOA-IUU to:
    a. remove or withdraw vessels on the NPFC IUU Vessel List from the NPFC Vessel Registry;
    b. ensure that fishing vessels, support vessels, mother ships or cargo vessels flying their flag do not participate in any transshipment or joint fishing operations with, support or re-supply vessels on the NPFC IUU Vessel List;
    c. prohibit the entry into their ports of vessels included on the NPFC IUU Vessel List, except in the case of investigation or *force majeure*;
    d. prohibit the chartering of a vessel on the NPFC IUU Vessel List;
    e. refuse to grant their flag to vessels on the NPFC IUU Vessel List, unless the ownership of the vessel has subsequently changed and the new owner has provided sufficient evidence demonstrating that the previous owner or operator has no legal, beneficial or financial interest in, or control of the vessels, or the Member concerned is satisfied that, having taken into account all relevant facts, the vessel is no longer engaged in or associated with IUU fishing activities;
    f. prohibit commercial transactions, imports, landings and/or transshipment of species covered by the Convention from vessels on the IUU Vessel List;
    g. encourage traders, importers, transporters and others involved, to refrain from transactions in, and transshipment of, species covered by the Convention caught by vessels on the NPFC IUU Vessel List;
    h. collect, and exchange with other Members/CNCPs, any appropriate information with the aim of searching for, controlling and preventing false import/export certificates for species covered by the Convention from vessels on the NPFC IUU Vessel List.

24 Members/CNCPs should cooperate with each other and other flag States to strengthen their legal, operational and institutional capacity to take action against their flagged vessels that have engaged in IUU fishing in the Area, including the imposition of adequate sanctions, as an alternative to de-flagging such vessels, thereby rendering such vessels without nationality.

25. The Executive Secretary shall take any measure necessary to ensure publicity of the NPFC IUU Vessel List, in a manner consistent with any applicable confidentiality requirements, including placing it on the NPFC website. Furthermore, the Executive Secretary shall transmit the NPFC IUU Vessel List to the FAO and to other regional fisheries organizations for the purposes of enhancing cooperation between the NPFC and these organizations aimed at preventing, deterring and eliminating IUU fishing.

26. Upon receipt of the final IUU vessel list established by another Regional Fisheries Management Organization (RFMO) and any other information regarding the list including its modification, the Executive Secretary shall circulate it to Members/CNCPs and shall place it on the NPFC website.

27. Without prejudice to the rights of Members/CNCPs and coastal states to take proper action, consistent with international law, including applicable WTO obligations, the Members/CNCPs shall not take any unilateral trade measures or other sanctions against vessels on the draft or Provisional IUU Vessel Lists, pursuant to paras 7 or 15, or that have been removed from the NPFC IUU Vessel List, pursuant to paras 18 and 21, on the grounds that such vessels are involved in IUU fishing activities.

Modification of the NPFC IUU Vessel List

28. Member/CNCPs/non-Contracting Parties with a vessel on the NPFC IUU Vessel List may request the removal of the vessel from the list at any time during the intersessional period by submitting to the Executive Secretary suitably documented information demonstrating that:
    a). it has adopted measures that will seek to ensure that the vessel complies with all NPFC measures; and
    b). it will be able to assume effectively its duties with regards to the monitoring and control of the vessel's fishing activities in the Convention Area; and
    c). it has taken effective action in response to the IUU fishing activities that resulted in the vessel's inclusion in the NPFC IUU Vessel List, including prosecution or the imposition of sanctions of adequate severity; or
    d). the vessel has changed ownership and that the new owner can establish that the previous owner no longer has any legal, financial or real interests in the vessel or exercises control over it, and that the new owner has not participated in IUU fishing activities.

29. The Executive Secretary will transmit the removal request, with all the supporting information, to the Members/CNCPs within 15 days following the receipt of the removal request. Members/CNCPs shall promptly acknowledge receipt of the removal request. If no acknowledgement is received within 10 days of the date of transmittal, the Executive Secretary shall retransmit the removal request and shall use additional means available to ensure the request has been received.

30. Each Commission Member shall examine the removal request and notify the Executive Secretary in writing of its decision, and the rationale therefore, regarding the removal of the vessel within 30 days following the notification by the Executive Secretary. Decisions on the request to remove the vessel shall be made in accordance with Rule 2 of the Rules of Procedure.

31. If Commission Members agree to the removal of the vessel from the NPFC IUU Vessel List within the period stipulated in para 30, the Executive Secretary will inform Members/CNCPs, and non-Contracting Parties concerned, FAO and other regional fisheries management organizations, and will remove the vessel from the NPFC IUU Vessel List, as published on the NPFC website.

32. If Commission Members disagree with the request for the removal of the vessel from the IUU Vessel List, the vessel will be maintained on the NPFC IUU Vessel List and the

Executive Secretary will inform the Members/CNCPs/non-Contracting Parties that made the removal request.

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

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

Review

34. This Conservation and Management Measure shall be subject to review and, as appropriate, revision by the TCC and acceptance by the Commission.

Annex A

NPFC Reporting Form for Illegal Activity

Recalling NPFC CMM 2016 - 02 on *Establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing activities in the Convention Area of North Pacific Fisheries Commission*, attached are details of illegal activity recorded in …….. (Give location of the infraction – lat and long or general area)

1. Details of Vessel

(a) Name of vessel and previous names, if any;

(b) Flag of vessel and previous flags, if any;

(c) Owner and previous owner, including beneficial owners, if any;

(d) Operator of vessel and previous operators, if any;

(e) Call sign of vessel and previous call sign, if any;

(f) Lloyds/IMO number, if any;

(g) Photographs of the vessel, where available;

(h) Date vessel was first included on the IUU List;

(i) Summary of activities which justify inclusion of the vessel on the list, together with references to all relevant documents informing of and evidencing those activities (more detail in section 2)

2. Details of elements contravened

(*Indicate with an "X" the individual elements of CMM contravened, and provide relevant details including date, location, source of information. Additional information can be provided in an attachment, if necessary, and listed under section 3*).

Item	Definition	Indicate
a	Harvest species covered by the Convention in the Convention Area and are not on the NPFC record of authorized vessels	

b	Engage in fishing for fishery resources when the Member/CNCP, under whose flag the vessel is sailing, has exhausted or has no quotas, catch limit or effort allocation, including, if applicable, those received from another Member/CNCP, under relevant NPFC conservation measures	
c	Do not record or report their catches made in the Convention Area consistent with NPFC measures, or make false reports	
d	Take and land undersized fish in contravention of relevant NPFC conservation measures	
e	Fish in a closed area or during a closed season in contravention of relevant NPFC conservation measures	
f	Use prohibited fishing gear in contravention of relevant NPFC conservation measures	
g	Tranship with, participate in joint fishing operations with, support or re-supply vessels included in the IUU vessels list	
h	Are without nationality and harvest species covered by the Convention in the Convention Area	
i	Engage in any other fishing activities that is in contravention of relevant NPFC conservation measures	
j	Are related to paragraph 4 of this conservation and management measures	

3. Associated documents

(*List here the associated documents that are appended e.g. boarding reports, court proceedings, photographs*).

4. Recommended actions

Item	**Recommended Actions**	**Indicate**
A	Notification to NPFC Executive Secretary only. No further action is recommended	
B	Notification of illegal activity to NPFC Executive Secretary. Recommend notification of activity to flag Member/CNCP/non-Contracting Party	
C	Recommended for inclusion on NPFC IUU Vessel List	

Annex B

Information to be included in all NPFC IUU Vessel Lists

(Draft, Provisional and Final)

The Draft IUU Vessel List, as well as the Provisional and Final IUU Vessel Lists shall contain the following details, where available:

(a) Name of vessel and previous names, if any;
(b) Flag of vessel and previous flags, if any;
(c) Owner and previous owners, including beneficial owners, if any;
(d) Operator of vessel and previous operators, if any;
(e) Call sign of vessel and previous call signs, if any;
(f) Lloyds/IMO number, if any;
(g) Photographs of the vessel, where available;
(h) Date vessel was first included on the IUU Vessel List;
(i) Summary of activities which justify inclusion of the vessel on the List, together with references to all relevant documents informing of and evidencing those activities.

ANNEX G
CMM 2016-03

CONSERVATION AND MANAGEMENT MEASURE ON THE INTERIM TRANSSHIPPMENT PROCEDURES FOR THE NORTH PACIFIC FISHERIES COMMISSION

The North Pacific Fisheries Commission (NPFC),

Noting that Article 7, *Functions of the Commission,* of the *Convention on the Conservation and Management of the High Seas Fisheries Resources of the North Pacific Ocean* states that the Commission 'shall adopt measures to ensure effective monitoring, control and surveillance, as well as compliance with and enforcement of the provisions of this Convention';

And further noting, that Paragraph 2 (a) further states that the Commission shall:

'establish procedures for the regulation and monitoring of transshipment of fisheries resources and products of fisheries resources taken in the Convention Area, including notification to the Commission of the location and quantity of any transshipment';

Adopts the following interim conservation and management measure on transshipment procedures for the North Pacific Fisheries Commission:

1. Establish the elements and procedures for the regulation and monitoring of transshipment of fisheries resources or products of fisheries resources taken through bottom fishing (as an initial step), but not including research fishing, in the Convention Area. For the purposes of these procedures, research fishing means fishing activities that are part of a research project approved by the Scientific Committee
2. Procedures for the Monitoring and Regulation of Transshipment of Fisheries Resources and Products of Fisheries Resources Taken in the Convention Area
    a. The same transshipment reporting procedures will apply to all vessels transshipping fisheries resources and products of fisheries resources that were harvested in the Convention Area, regardless of where the transshipment occurs.
    b. As specified under Article 13, Paragraph 8 of the Convention, the NPFC shall maintain a list of fishing vessels that are authorized to participate in fisheries in the Convention Area, and vessels will be added or removed from the list as necessary. Because transshipping is considered "fishing" under the Convention, vessels not on the list are not authorized to transship fisheries resources and products of fisheries resources in the Convention Area.
    c. The Commission pursuant to the applicable CMM establishing the NPFC vessel registry further establishes an Interim Register of non-Member Carrier Vessels (the "Interim Register") applicable from 2017 to 2019.
3. **Transshipment Monitoring Measures**
    a. For transshipments in the Convention Area, offloading and receiving vessels flying the flag of a Member of the Commission (known as the "Member") must provide advance notice to that Member. The advance notice must contain identification information for the offloading and receiving vessels, information on the product being transshipped, and information on the location of the transshipment.

b. Within 15 days after a transshipment has occurred, the **offloading** vessel must provide its flag member with a declaration of the transshipment that includes identification information for the offloading and receiving vessels and information on the product transshipped, including bottom fisheries:
   i) Date and time of commencement of transshipment.
   ii) Date and time of completion of transshipment.
   iii) Position at commencement of transshipment (name of port, or if at sea, latitude and longitude to nearest 1/10th of a degree).
   iv) Position at completion of transshipment (name of port, or if at sea, latitude and longitude to nearest 1/10th of a degree).
   v) Description of product type by species (e.g. whole, frozen fish in 20 kg cartons).
   vi) Number of cartons, net weight (kg) of product, by species.
   vii) Total net weight of product transshipped (kg).
   viii) Hold numbers in receiving vessel in which product is stowed.
   ix) If at sea, next destination port of receiving vessel.
   x) If at sea, next port arrival date estimate.
   xi) Port(s) and estimate of date(s) transshipped product is expected to be landed.

c. Within 15 days after a transshipment has occurred, the **receiving** vessel, except when flying the same flag as the offloading vessel, must provide the flag member of the offloading vessel with a declaration of the transshipment that includes identification information about the offloading and receiving vessels and information on the product that was transshipped, including:
   i) Date and time of commencement of transshipment.
   ii) Date and time of completion of transshipment.
   iii) Position at commencement of transshipment (name of port, or if at sea, latitude and longitude to nearest 1/10th of a degree).
   iv) Position at completion of transshipment (name of port, or if at sea, latitude and longitude to nearest 1/10th of a degree).
   v) Description of product type by species (e.g. whole, frozen fish in 20 kg cartons).
   vi) Number of cartons, net weight (kg) of product, by species.
   vii) Total net weight of product transshipped (kg).
   viii) Hold numbers in receiving vessel in which product is stowed.
   ix) Port(s) and estimate of date(s) transshipped product is expected to be landed.
   x) Actual port(s) of landing.

4. Member Reports

Each Member and Cooperating Non-Contracting Party will provide a summary of the data collected in each year's transshipment declarations to the NPFC. The Scientific Committee and the Technical and Compliance Committee will recommend the specific data fields required to be included in the summary. The summary will be provided as an attachment to the Annual Report.

ANNEX H
CMM 2016-04

CONSERVATION AND MANAGEMENT MEASURE ON VESSELS WITHOUT NATIONALITY

The North Pacific Fisheries Commission (NPFC),

Recognising that vessels without nationality operate without governance and oversight;

Concerned that fishing in the NPFC Area of Application (the Area) by vessels without nationality undermines the objective of the Convention and the work of the Commission;

Noting Article 92 and 94 of the United Nation Convention on the Law of the Sea (UNCLOS) relating to the status of ships and the duties of flag States;

Recalling that the FAO Council has adopted an International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing (IUU fishing) and has recommended that States adopt measures consistent with international law in relation to fishing vessels without nationality involved in IUU fishing on the high seas;

Adopts the following conservation and management measure in accordance with Article 7 of the Convention:

1. A vessel without nationality is a vessel that, under international law, is not entitled to fly the flag of any State or, as referred to in Article 92 of UNCLOS, sails under the flag of two or more States, using them according to convenience.

2. Any fishing activities by a fishing vessel without nationality on the high seas of the Area shall be deemed to undermine the Convention and Commission conservation and management measures and shall constitute a serious violation in accordance with Article 17 of the Convention. These activities are deemed to be IUU fishing and therefore its information shall be provided by the Secretariat to the TCC according to para 5 of this CMM and shall constitute an appropriate basis for placement of such vessel on the Commissions Draft IUU List in accordance with the relevant CMM for establishing NPFC IUU Vessel List.

3. Members and Cooperating Non-Contracting Parties (CNCPs) are encouraged to take effective action in accordance with international law, including, where appropriate, enforcement action, against vessels without nationality that are engaging, or have engaged, in fishing activities in the Area, and to prohibit the landing and transshipment of fish and fish products, and access to port services, by such vessels, except where such access is essential to the investigation, safety or health of the crew or the safety of the vessel.

4. Members and CNCPs are encouraged to adopt necessary measures, including, where relevant, domestic legislation, to allow them to take the effective action referred to in

paragraph 3 to prevent and deter vessels without nationality from engaging in fishing activities in the Area.

5. Members and CNCPs are encouraged to share information about vessels suspected to be without nationality to assist in clarifying the status of such vessels, and about the activities of vessels without nationality to enable them to make informed decisions about action to prevent and deter such vessels from engaging in fishing activities in the Area. Any sightings of fishing vessels that are suspected of, or confirmed as being, without nationality that may be fishing in the high seas of the Area shall be reported to the Secretariat as soon as possible by the appropriate authorities of the member or CNCP whose vessel or aircraft made the sighting. The Secretariat will circulate such information to all members and CNCPs as soon as practicable, and will provide a report to the next meeting of the Technical and Compliance Committee of all such information provided.

6. For the effectiveness of this measure, the Commission shall cooperate with relevant regional organizations, especially with those regional fisheries management organizations with responsibility for fisheries in marine areas near or adjacent to the Convention Area.

ANNEX I
CMM 2016-05

CONSERVATION AND MANAGEMENT MEASURE FOR BOTTOM FISHERIES AND PROTECTION OF VULNERABLE MARINE ECOSYSTEMS IN THE NORTHWESTERN PACIFIC OCEAN

The North Pacific Fisheries Commission (NPFC),

Strongly supporting protection of vulnerable marine ecosystems (VMEs) and sustainable management of fish stocks based on the best scientific information available;

Recalling the United Nations General Assembly Resolutions (UNGA) on Sustainable Fisheries, particularly paragraphs 66 to 71 of the UNGA59/25 in 2004, paragraphs 69 to 74 of UNGA60/31 in 2005, and paragraphs 69 and 80 to 91 of UNGA61/105 in 2006;

Noting, in particular, paragraphs 66 and 69 of UNGA59/25 that call upon States to take action urgently to address the issue of bottom trawl fisheries on VMEs and to cooperate in the establishment of new regional fisheries management organizations or arrangements;

Recognizing further that fishing activities, including bottom fisheries, are an important contributor to the global food supply and that this must be taken into account when seeking to achieve sustainable fisheries and to protect VMEs;

Recognizing the importance of collecting scientific data to assess the impacts of these fisheries on marine species and VMEs;

Concerned about possible adverse impacts of unregulated expansion of bottom fisheries on marine species and VMEs in the western part of the Convention Area;

Adopts the following Conservation and Management Measure:

1. Scope

   A. Coverage

   These Measures are to be applied to all bottom fishing activities throughout the high seas areas of the Northwestern Pacific Ocean, defined, for the purposes of this document, as those occurring in the Convention Area as set out in Article 4 of the Convention text to the west of the line of 175 degrees W longitude (here in after called “the western part of the Convention Area”) including all such areas and marine species other than those species already covered by existing international fisheries management instruments, including bilateral agreements and Regional Fisheries Management Organizations or Arrangements.

   B. Management target

   Bottom fisheries conducted by vessels operating in the western part of the Convention Area.

2. General purpose

Sustainable management of fish stocks and protection of VMEs in the western part of the Convention Area.

The objective of these Measures is to ensure the long-term conservation and sustainable use of the fisheries resources in the Convention Area while protecting the marine ecosystems of the North Pacific Ocean in which these resources occur. These measures shall set out to prevent significant adverse impacts on VMEs in the Convention Area of the North Pacific Ocean, acknowledging the complex dependency of fishing resources and species belonging to the same ecosystem within VMEs.

The Commission shall re-evaluate, and as appropriate, revise, the definition based on further consideration of the work done through FAO and by NPFC.

3. Principles

The implementation of this CMM shall:

- be based on the best scientific information available,
- be in accordance with existing international laws and agreements including UNCLOS and other relevant international instruments,
- establish appropriate and effective conservation and management measures,
- be in accordance with the precautionary approach, and
- incorporate an ecosystem approach to fisheries management.

4. Measures

Members of the Commission shall take the following measures in order to achieve sustainable management of fish stocks and protection of VMEs in the western part of the Convention Area:

A. Limit fishing effort in bottom fisheries on the western part of the Convention Area to the level agreed in February 2007 in terms of the number of fishing vessels and other parameters which reflect the level of fishing effort, fishing capacity or potential impacts on marine ecosystems.

B. Not allow bottom fisheries to expand into the western part of the Convention Area where no such fishing is currently occurring, in particular, by limiting such bottom fisheries to seamounts located south of 45 degrees North Latitude and refrain from bottom fisheries in other areas of the western part of the Convention Area covered by these measures and also not allow bottom fisheries to conduct fishing operation in areas deeper than 1,500m.

C. Notwithstanding subparagraphs A and B above, exceptions to these restrictions may be provided in cases where it can be shown that any fishing activity beyond such limits or in any new areas would not have significant adverse impacts (SAIs) on marine species or any VME. Such fishing activity is subject to an exploratory fishery protocol (Annex 1).

D. Any determinations pursuant to subparagraph C that any proposed fishing activity will not have SAIs on marine species or any VME are to be in accordance with the Science-

based Standards and Criteria (Annex 2), which are consistent with the FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas.

E. Any determinations, by any flag state or pursuant to any subsequent arrangement for the management of the bottom fisheries in the areas covered by these measures, that fishing activity would not have SAIs on marine species or any VMEs, shall be made publicly available through agreed means.

F. Prohibit its vessels from engaging in directed fishing on the following orders: Alcyonacea, Antipatharia, Gorgonacea, and Scleractinia as well as any other indicator species for VMEs as may be identified from time to time by the SC and approved by the Commission.

G. Further, considering accumulated information regarding fishing activities in the western part of the Convention Area, in areas where, in the course of fishing operations, cold water corals more than 50Kg are encountered in one gear retrieval, Members of the Commission shall require vessels flying their flag to cease bottom fishing activities in that location. In such cases, the vessel shall not resume fishing activities until it has relocated a sufficient distance, which shall be no less than 2 nautical miles, so that additional encounters with VMEs are unlikely. All such encounters, including the location and the species in question, shall be reported to the Secretariat, who shall notify the other Members of the Commission so that appropriate measures can be adopted in respect of the relevant site. It is agreed that the cold water corals include: Alcyonacea, Antipatharia, Gorgonacea, and Scleractinia.

H. C-H seamount and Southeastern part of Koko seamount are closed precautionary for potential VME conservation. Fishing in these areas requires exploratory fishery protocol (Annex 1).

I. Ensure that the distance between the footrope of the gill net and sea floor is greater than 70 cm.

J. Apply a bottom fisheries closure from November to December

K. Limit annual catch of North Pacific armorhead to 15,000 tons for Japan

5. Contingent Action

Members of the Commission shall submit to the SC their assessments of the impacts of fishing activity on marine species or any VMEs, including the proposed management measures to prevent such impact. Such submissions shall include all relevant data and information in support of any such assessment. Procedures for such reviews including procedures for the provision of advice and recommendations from the SC to the submitting Member are attached (Annex 3). Members will only authorize bottom fishing activity pursuant to para 4 (C).

6. Scientific Information

To facilitate the scientific work associated with the implementation of these measures, each Member of the Commission shall undertake:

A. Collection of Information for purposes of defining the footprint

In implementing paragraphs 4A and 4B, the Members of the Commission shall provide for each year, the number of vessels by gear type, size of vessels (tons), number of fishing days or days on the fishing grounds, total catch by species, and areas fished (names of seamounts) to the Secretariat. The Secretariat shall circulate the information received to the other Members consistent with the approved Interim Data Handling and Data Sharing Protocol. To support assessments of the fisheries and refinement of conservation and management measures, Members of the Commission are to provide update information on an annual basis.

B. Collection of Information

(i) Collection of scientific information from each bottom fishing vessel operating in the western part of the Convention Area.

a. Catch and effort data

b. Related information such as time, location, depth, temperature, etc.

(ii) As appropriate the collection of information from research vessels operating in the western part of the Convention Area.

a. Physical, chemical, biological, oceanographic, meteorological, etc.

b. Ecosystem surveys.

(iii) Collection of Observer Data

Duly designated observers from the flag member shall collect information from bottom fishing vessels operating in the western part of the Convention Area. Observers shall collect data in accordance with Annex 5. Each Member of the Commission shall submit the reports to the Secretariat in accordance with Annex 4. The Secretariat shall compile this information on an annual basis and make it available to the Members of the Commission.

7. Control of bottom fishing vessels

To strengthen its control over bottom fishing vessels flying its flag, each Member of the Commission shall ensure that all such vessels operating in the western part of the Convention Area be equipped with an operational vessel monitoring system.

8. Observers

All vessels authorized to bottom fishing in the western part of the Convention Area shall carry an observer on board.

Annex 1

EXPLORATORY FISHERY PROTOCOL IN THE NORTH PACIFIC OCEAN

1. From 1 January 2009, all bottom fishing activities in new fishing areas and areas where fishing is prohibited in a precautionary manner or with bottom gear not previously used in the existing fishing areas, are to be considered as "exploratory fisheries" and to be conducted in accordance with this protocol.

2. Precautionary conservation and management measures, including catch and effort controls, are essential during the exploratory phase of deep sea fisheries. Implementation of a precautionary approach to sustainable exploitation of deep sea fisheries shall include the following measures:
   i. precautionary effort limits, particularly where reliable assessments of sustainable exploitation rates of target and main by-catch species are not available;
   ii. precautionary measures, including precautionary spatial catch limits where appropriate, to prevent serial depletion of low-productivity stocks;
   iii. regular review of appropriate indices of stock status and revision downwards of the limits listed above when significant declines are detected;
   iv. measures to prevent significant adverse impacts on vulnerable marine ecosystems; and
   v. comprehensive monitoring of all fishing effort, capture of all species and interactions with VMEs.

3. When a member of the Commission would like to conduct exploratory fisheries, it is to follow the following procedure:
   (1) Prior to the commencement of fishing, the member of the Commission is to circulate the information and assessment in Appendix 1.1 to the members of the Scientific Committee (SC) for review and to all members of the Commission for information, together with the impact assessment. Such information is to be provided to the other members at least 30 days in advance of the meeting at which the information shall be reviewed.

   (2) The assessment in (1) above is to be conducted in accordance with the procedure set forth in "Science-based Standards and Criteria for Identification of VMEs and Assessment of Significant Adverse Impacts on VMEs and Marine Species (Annex 2)", with the understanding that particular care shall be taken in the evaluation of risks of the significant adverse impact on vulnerable marine ecosystems (VMEs), in line with the precautionary approach.

   (3) The SC is to review the information and the assessment submitted in (1) above in accordance with "SC Assessment Review Procedures for Bottom Fishing Activities (Annex 3)."

   (4) The exploratory fisheries are to be permitted only where the assessment concludes that they would not have significant adverse impacts (SAIs) on marine species or any VMEs and on the basis of comments and recommendations of SC. Any determinations, by any Member of the Commission or the SC, that the exploratory fishing activities would not

have SAIs on marine species or any VMEs, shall be made publicly available through the NPFC website.

4. The member of the Commission is to ensure that all vessels flying its flag conducting exploratory fisheries are equipped with a satellite monitoring device and have an observer on board at all times.

5. Within 3 months of the end of the exploratory fishing activities or within 12 months of the commencement of fishing, whichever occurs first, the member of the Commission is to provide a report of the results of such activities to the members of the SC and all members of the Commission. If the SC meets prior to the end of this 12 month period, the member of the Commission is to provide an interim report 30 days in advance of the SC meeting. The information to be included in the report is specified in Appendix 1.2.

6. The SC is to review the report in 5 above, and decide whether the exploratory fishing activities had SAIs on marine species or any VME. The SC then is to send its recommendations to the Commission on whether the exploratory fisheries can continue and whether additional management measures shall be required if they are to continue. The Commission is to strive to adopt conservation and management measures to prevent SAIs on marine species or any VMEs. If the Commission is not able to reach consensus on any such measures, each fishing member of the Commission is to adopt measures to avoid any SAIs on VMEs.

7. Members of the Commission shall only authorize continuation of exploratory fishing activity, or commencement of commercial fishing activity, under this protocol on the basis of comments and recommendations of the SC.

Appendix 1.1

Information to be provided before exploratory fisheries start

1. A harvesting plan
   - Name of vessel
   - Flag member of vessel
   - Description of area to be fished (location and depth)
   - Fishing dates
   - Anticipated effort
   - Target species
   - Bottom fishing gear-type used
   - Area and effort restrictions to ensure that fisheries occur on a gradual basis in a limited geographical area.

2. A mitigation plan
   - Measures to prevent SAIs to VMEs that may be encountered during the fishery

3. A catch monitoring plan
- Recording/reporting of all species brought onboard to the lowest possible taxonomic level
- 100% satellite monitoring
- 100% observer coverage

4. A data collection plan
- Data is to be collected in accordance with “Type and Format of Scientific Observer Data to be Collected” (Annex 5)

Appendix 1.2

Information to be included in the report

- Name of vessel
- Flag member of vessel
- Description of area fished (location and depth)
- Fishing dates
- Total effort
- Bottom fishing gear-type used
- List of VME encountered (the amount of VME indicator species for each encounter specifying the location: longitude and latitude)
- Mitigation measures taken in response to the encounter of VME
- List of all organisms brought onboard
- List of VMEs indicator species brought onboard by location: longitude and latitude

SCIENCE-BASED STANDARDS AND CRITERIA FOR IDENTIFICATION OF VMES AND ASSESSMENT OF SIGNIFICANT ADVERSE IMPACTS ON VMES AND MARINE SPECIES

1. Introduction

Members of the Commission have hereby established science-based standards and criteria to guide their implementation of United Nations General Assembly (UNGA) Resolution 61/105 and the measures adopted by Members in respect of bottom fishing activities in the North Pacific Ocean (NPO). In this regard, these science-based standards and criteria are to be applied to identify vulnerable marine ecosystems (VMEs) and assess significant adverse impacts (SAIs) of bottom fishing activities on such VMEs or marine species and to promote the long-term sustainability of deep sea fisheries in the Convention Area. The science-based standards and criteria are consistent with the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, taking into account the work of other RFMOs implementing management of deep-sea bottom fisheries in accordance with UNGA Resolution 61/105. The standards and criteria are to be modified from time to time as more data are collected through research activities and monitoring of fishing operations.

2. Purpose

(1) The purpose of the standards and criteria is to provide guidelines for each member of the Commission in identifying VMEs and assessing SAIs of individual bottom fishing activities[3] on VMEs or marine species in the Convention Area. Each member of the Commission, using the best information available, is to decide which species or areas are to be categorized as VMEs, identify areas where VMEs are known or likely to occur, and assess whether individual bottom fishing activities would have SAIs on such VMEs or marine species. The results of these tasks are to be submitted to and reviewed by the Scientific Committee with a view to reaching a common understanding among the members of the Commission.

(2) For the purpose of applying the standards and criteria, the bottom fisheries are defined as follows:

a The fisheries are conducted in the Convention Area;

b The total catch (everything brought up by the fishing gear) includes species that can only sustain low exploitation rates; and

c The fishing gear is likely to contact the seafloor during the normal course of fishing operations

3. Definition of VMEs

(1) Although Paragraph 83 of UNGA Resolution 61/105 refers to seamounts, hydrothermal vents and cold water corals as examples of VMEs, there is no definitive list of specific species or areas that are to be regarded as VMEs.

(2) Vulnerability is related to the likelihood that a population, community or habitat will experience

[3] "individual bottom fishing activities" means fishing activities by each fishing gear. For example, if ten fishing vessels operate bottom trawl fishing in a certain area, the impacts of the fishing activities of these vessels on the ecosystem are to be assessed as a whole rather than on a vessel-by-vessel basis. It should be noted that if the total number or capacity of the vessels using the same fishing gear has increased, the impacts of the fishing activities are to be assessed again.

substantial alteration by fishing activities and how much time will be required for its recovery from such alteration. The most vulnerable ecosystems are those that are both easily disturbed and are very slow to recover, or may never recover. The vulnerabilities of populations, communities and habitats are to be assessed relative to specific threats. Some features, particularly ones that are physically fragile or inherently rare may be vulnerable to most forms of disturbance, but the vulnerability of some populations, communities and habitats may vary greatly depending on the type of fishing gear used or the kind of disturbance experienced. The risks to a marine ecosystem are determined by its vulnerability, the probability of a threat occurring and the mitigation means applied to the threat. Accordingly, the FAO Guidelines only provide examples of potential vulnerable species groups, communities and habitats as well as features that potentially support them (Annex 2.1).

(3) A marine ecosystem is to be classified as vulnerable based on its characteristics. The following list of characteristics is used as criteria in the identification of VMEs.

a Uniqueness or rarity - an area or ecosystem that is unique or that contains rare species whose loss could not be compensated for by other similar areas. These include:

i Habitats that contain endemic species;

ii Habitats of rare, threatened or endangered species that occur in discrete areas;

iii Nurseries or discrete feeding, breeding, or spawning areas

b Functional significance of the habitat – discrete areas or habitats that are necessary for the survival, function, spawning/reproduction or recovery of fish stocks, particular life-history stages (e.g. nursery grounds or rearing areas), or of rare, threatened or endangered marine species.

c Fragility – an ecosystem that is highly susceptible to degradation by anthropogenic activities

d Life-history traits of component species that make recovery difficult – ecosystems that are characterized by populations or assemblages of species with one or more of the following characteristics:

i Slow growth rates

ii Late age of maturity

iii Low or unpredictable recruitment

iv Long-lived

e Structural complexity – an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features. In these ecosystems, ecological processes are usually highly dependent on these structured systems. Further, such ecosystems often have high diversity, which is dependent on the structuring organisms.

(4) Management response may vary, depending on the size of the ecological unit in the Convention Area. Therefore, the spatial extent of the ecological unit is to be decided first. That is, whether the ecological unit is the entire Area, or the current fishing ground, namely, the Emperor Seamount and Northern Hawaiian Ridge area (hereinafter called "the ES-NHR area"), or a group of the seamounts within the ES-NHR area, or each seamount in the ES-NHR area, is to be decided using the above criteria.

4. Identification of potential VMEs

(1) Fished seamounts

(a) Identification of fished seamounts

It is reported that four types of fishing gear are currently used by the members of the Commission in the ES-NHR area, namely, bottom trawl, bottom gillnet, bottom longline and pot. A fifth type of fishing gear (coral drag) was used in the ES-NHR area from the mid-1960s to the late 1980s and is possibly still used by non-members of the Commission. These types of fishing gear are usually used on the top or slope of seamounts, which could be considered VMEs. It is therefore necessary to identify the footprint of the bottom fisheries (fished seamounts) based on the available fishing record. The following seamounts have been identified as fished seamounts: Suiko, Showa, Youmei, Nintoku, Jingu, Ojin, Northern Koko, Koko, Kinmei, Yuryaku, Kammu, Colahan, and C-H. Since the use of most of these gears in the ES-NHR area dates back to the late 1960s and 1970s, it is important to establish, to the extent practicable, a time series of where and when these gears have been used in order to assess potential long-term effects on any existing VMEs.

Fishing effort may not be evenly distributed on each seamount since fish aggregation may occur only at certain points of the seamount and some parts of the seamount may be physically unsuitable for certain fishing gears. Thus, it is important to know actual fished areas within the same seamount so as to know the gravity of the impact of fishing activities on the entire seamount.

Due consideration is to be given to the protection of commercial confidentiality when identifying actual fishing grounds.

(b) Assessment on whether a specific seamount that has been fished is a VME

After identifying the fished seamounts or fished areas of seamounts, it is necessary to assess whether each fished seamount is a VME or contains VMEs in accordance with the criteria in 3 above, individually or in combination using the best available scientific and technical information as well as Annex 2.1. A variety of data would be required to conduct such assessment, including pictures of seamounts taken by an ROV camera or drop camera, biological samples collected through research activities and observer programs, and detailed bathymetry map. Where site-specific information is lacking, other information that is relevant to inferring the likely presence of VMEs is to be used.

(2) New fishing areas

Any place other than the fished seamounts above is to be regarded as a new fishing area. If a member of the Commission is considering fishing in a new fishing area, such a fishing area is to be subject to, in addition to these standards and criteria, an exploratory fishery protocol (Annex 1).

5. Assessment of SAIs on VMEs or marine species

(1) Significant adverse impacts are those that compromise ecosystem integrity (i.e., ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types. Impacts are to be evaluated individually, in combination and cumulatively.

(2) When determining the scale and significance of an impact, the following six factors are to be considered:

(a) The intensity or severity of the impact at the specific site being affected;
(b) The spatial extent of the impact relative to the availability of the habitat type affected;
(c) The sensitivity/vulnerability of the ecosystem to the impact;
(d) The ability of an ecosystem to recover from harm, and the rate of such recovery;
(e) The extent to which ecosystem functions may be altered by the impact; and
(f) The timing and duration of the impact relative to the period in which a species needs the habitat during one or more life-history stages.

(3) Temporary impacts are those that are limited in duration and that allow the particular ecosystem to recover over an acceptable timeframe. Such timeframes are to be decided on a case-by-case basis and be on the order of 5-20 years, taking into account the specific features of the populations and ecosystems.

(4) In determining whether an impact is temporary, both the duration and the frequency with which an impact is repeated is to be considered. If the interval between the expected disturbances of a habitat is shorter than the recovery time, the impact is to be considered more than temporary.

(5) Each member of the Commission is to conduct assessments to establish if bottom fishing activities are likely to produce SAIs in a given seamount or other VMEs. Such an impact assessment is to address, *inter alia*::

(a) Type of fishing conducted or contemplated, including vessel and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing;
(b) Best available scientific and technical information on the current state of fishery resources, and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;
(c) Identification, description and mapping of VMEs known or likely to occur in the fishing area;

(d) The data and methods used to identify, describe and assess the impacts of the activity, identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment

(e) Identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low-productivity fishery resources in the fishing area;

(f) Risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be SAIs, particularly impacts on VMEs and low-productivity fishery resources (Risk assessments are to take into account, as appropriate, differing conditions prevailing in areas where fisheries are well established and in areas where fisheries have not taken place or only occur occasionally);

(g) The proposed mitigation and management measures to be used to prevent SAIs on VMEs and ensure long-term conservation and sustainable utilization of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations.

(6) Impact assessments are to consider, as appropriate, the information referred to in these Standards and Criteria, as well as relevant information from similar or related fisheries, species and ecosystems.

(7) Where an assessment concludes that the area does not contain VMEs or that significant adverse impacts on VMEs or marine species are not likely, such assessments are to be repeated when there have been significant changes to the fishery or other activities in the area, or when natural processes are thought to have undergone significant changes.

6. Proposed conservation and management measures to prevent SAIs

As a result of the assessment in 5 above, if it is considered that individual fishing activities are causing or likely to cause SAIs on VMEs or marine species, the member of the Commission is to adopt appropriate conservation and management measures to prevent such SAIs. The member of the Commission is to clearly indicate how such impacts are expected to be prevented or mitigated by the measures.

7. Precautionary approach

If after assessing all available scientific and technical information, the presence of VMEs or the likelihood that individual bottom fishing activities would cause SAIs on VMEs or marine species cannot be adequately determined, members of the Commission are only to authorize individual bottom fishing activities to proceed in accordance with:

(a) Precautionary, conservation and management measures to prevent SAIs;

(b) Measures to address unexpected encounters with VMEs in the course of fishing operations;

(c) Measures, including ongoing scientific research, monitoring and data collection, to reduce the uncertainty; and

(d) Measures to ensure long-term sustainability of deep sea fisheries.

8. Template for assessment report

Annex 2.2 is a template for individual member of the Commission to formulate reports on identification of VMEs and impact assessment.

Annex 2.1

EXAMPLES OF POTENTIAL VULNERABLE SPECIES GROUPS, COMMUNITIES AND HABITATS AS WELL AS FEATURES THAT POTENTIALLY SUPPORT THEM

The following examples of species groups, communities, habitats and features often display characteristics consistent with possible VMEs. Merely detecting the presence of an element itself is not sufficient to identify a VME. That identification is to be made on a case-by-case basis through application of relevant provisions of the Standards and Criteria, particularly Sections 3, 4 and 5.

Examples of species groups, communities and habitat forming species that are documented or considered sensitive and potentially vulnerable to deep-sea fisheries in the high-seas, and which may contribute to forming VMEs:	
a.	certain coldwater corals, e.g., reef builders and coral forest including: stony corals (scleractinia), alcyonaceans and gorgonians (octocorallia), black corals (antipatharia), and hydrocorals (stylasteridae),
b.	Some types of sponge dominated communities,
c.	communities composed of dense emergent fauna where large sessile protozoans (xenophyophores) and invertebrates (e.g., hydroids and bryozoans) form an important structural component of habitat, and
d.	seep and vent communities comprised of invertebrate and microbial species found nowhere else (i.e., endemic).

Examples of topographical, hydrophysical or geological features, including fragile geological structures, that potentially support the species groups or communities, referred to above:	
a.	submerged edges and slopes (e.g., corals and sponges),
b.	summits and flanks of seamounts, guyots, banks, knolls, and hills (e.g., corals, sponges, xenophyphores),
c.	canyons and trenches (e.g., burrowed clay outcrops, corals),
d.	hydrothermal vents (e.g., microbial communities and endemic invertebrates), and
e.	cold seeps (e.g., mud volcanoes, microbes, hard substrates for sessile invertebrates).

ANNEX 2.2

TEMPLATE FOR REPORTS ON IDENTIFICATION OF VMES AND ASSESSMENT OF IMPACTS CAUSED BY INDIVIDUAL FISHING ACTIVITIES ON VMES OR MARINE SPECIES

1. Name of the member of the Commission
2. Name of the fishery (e.g., bottom trawl, bottom gillnet, bottom longline, pot)
3. Status of the fishery (existing fishery or exploratory fishery)
4. Target species
5. Bycatch species
6. Recent level of fishing effort (every year at least since 2002)
   (1) Number of fishing vessels
   (2) Tonnage of each fishing vessel
   (3) Number of fishing days or days on the fishing ground
   (4) Fishing effort (total operating hours for trawl, # of hooks per day for long-line, # of pots per day for pot, total length of net per day for gillnet)
   (5) Total catch by species
   (6) Names of seamounts fished or to be fished
7. Fishing period
8. Analysis of status of fishery resources
   (1) Data and methods used for analysis
   (2) Results of analysis
   (3) Identification of uncertainties in data and methods, and measures to overcome such uncertainties
9. Analysis of status of bycatch species resources
   (1) Data and methods used for analysis
   (2) Results of analysis
   (3) Identification of uncertainties in data and methods, and measures to overcome such uncertainties
10. Analysis of existence of VMEs in the fishing ground
   (1) Data and methods used for analysis
   (2) Results of analysis
   (3) Identification of uncertainties in data and methods, and measures to overcome such uncertainties
11. Impact assessment of fishing activities on VMEs or marine species including cumulative impacts, and identification of SAIs on VMEs or marine species, as detailed in Section 5 above, Assessment of SAIs on VMEs or marine species
12. Other points to be addressed
13. Conclusion (whether to continue or start fishing with what measures, or stop fishing)

Annex 3

SCIENTIFIC COMMITTEE ASSESSMENT REVIEW PROCEDURES FOR BOTTOM FISHING ACTIVITIES

1. The Scientific Committee (SC) is to review identifications of vulnerable marine ecosystems (VMEs) and assessments of significant adverse impact on VMEs, including proposed management measures intended to prevent such impacts submitted by individual Members.

2. Members of the Commission shall submit their identifications and assessments to members of the SC at least 21 days prior to the SC meeting at which the review is to take place. Such submissions shall include all relevant data and information in support of such determinations.

3. The SC will review the data and information in each assessment in accordance with the Science-based Standards and Criteria for Identification of VMEs and Assessment of Significant Adverse Impacts on VMEs and Marine Species (Annex 2), previous decisions of the Commission, and the FAO Technical Guidelines for the Management of Deep Sea Fisheries in the High Seas, paying special attention to the assessment process and criteria specified in paragraphs 47-49 of the Guidelines.

4. In conducting the review above, the SC will give particular attention to whether the deep-sea bottom fishing activity would have a significant adverse impact on VMEs and marine species and, if so, whether the proposed management measures would prevent such impacts.

5. Based on the above review, the SC will provide advice and recommendations to the submitting Members on the extent to which the assessments and related determinations are consistent with the procedures and criteria established in the documents identified above; and whether additional management measures will be required to prevent SAIs on VMEs.

6. Such recommendations will be reflected in the report of the SC meeting at which the assessments are considered.

Annex 4

FORMAT OF NATIONAL REPORT SECTIONS ON DEVELOPMENT AND IMPLEMENTATION OF SCIENTIFIC OBSERVER PROGRAMMES

Report Components

Annual Observer Programme implementation reports should form a component of annual National Reports submitted by members to the Scientific Committee. These reports should provide a brief overview of observer programmes conducted in the NPFC Convention Area. Observer programme reports should include the following sections:

A. Observer Training

An overview of observer training conducted, including:

- Overview of training programme provided to scientific observers.
- Number of observers trained.

B. Scientific Observer Programme Design and Coverage

Details of the design of the observer programme, including:

- Which fleets, fleet components or fishery components were covered by the programme.
- How vessels were selected to carry observers within the above fleets or components.
- How was observer coverage stratified: by fleets, fisheries components, vessel types, vessel sizes, vessel ages, fishing areas and seasons.

Details of observer coverage of the above fleets, including:

- Components, areas, seasons and proportion of total catches of target species, specifying units used to determine coverage.
- Total number of observer employment days, and number of actual days deployed on observation work.

C. Observer Data Collected

List of observer data collected against the agreed range of data set out in Annex 5, including:

- Effort Data: Amount of effort observed (vessel days, net panels, hooks, etc), by area and season and % observed out of total by area and seasons
- Catch Data: Amount of catch observed of target and by-catch species, by area and season, and % observed out of total estimated catch by species, area and seasons
- Length Frequency Data: Number of fish measured per species, by area and season.
- Biological Data: Type and quantity of other biological data or samples (otoliths, sex, maturity, etc) collected per species.
- The size of length-frequency and biological sub-samples relative to unobserved quantities.

D. Tag Return Monitoring

 Number of tags returns observed, by fish size class and area.

E. Problems Experienced

 Summary of problems encountered by observers and observer managers that could affect the NPFC Observer Programme Standards and/or each member's national observer programme developed under the NPFC standards.

Annex 5

NPFC BOTTOM FISHERIES
OBSERVER PROGRAMME STANDARDS: SCIENTIFIC COMPONENT

TYPE AND FORMAT OF SCIENTIFIC OBSERVER DATA TO BE COLLECTED

A. Vessel & Observer Data to be collected for Each Trip

1. Vessel and observer details are to be recorded only once for each observed trip.

2. The following vessel data are to be collected for each observed trip:
   a) Current vessel flag.
   b) Name of vessel.
   c) Name of the Captain.
   d) Name of the Fishing Master.
   e) Registration number.
   f) International radio call sign (if any).
   g) Lloyd's / IMO number (if allocated).
   h) Previous Names (if known).
   i) Port of registry.
   j) Previous flag (if any).
   k) Type of vessel.
   l) Type of fishing method(s).
   m) Length (m).
   n) Beam (m).
   o) Gross register tonnage (international tonnage).
   p) Power of main engine(s) (kilowatts).
   q) Hold capacity (cubic metres).
   r) Record of the equipment on board which may affect fishing power factors (navigational equipment, radar, sonar systems, weather fax or satellite weather receiver, sea-surface temperature image receiver, Doppler current monitor, radio direction finder).
   s) Total number of crew (all staff, excluding observers).

3. The following observer data are to be collected for each observed trip:
   a) Observer's name.
   b) Observer's organisation.
   c) Date observer embarked (UTC date).
   d) Port of embarkation.
   e) Date observer disembarked (UTC date).
   f) Port of disembarkation.

B. Catch & Effort Data to be collected for Trawl Fishing Activity

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

2. The following data are to be collected for each observed trawl tow:
   a) Tow start date (UTC).
   b) Tow start time (UTC).
   c) Tow end date (UTC).
   d) Tow end time (UTC).
   e) Tow start position (Lat/Lon, 1 minute resolution).
   f) Tow end position (Lat/Lon, 1 minute resolution).
   g) Type of trawl, bottom or mid-water.
   h) Type of trawl, single, double or triple.
   i) Height of net opening (m).
   j) Width of net opening (m).
   k) Mesh size of the cod-end net (stretched mesh, mm) and mesh type (diamond, square, etc).
   l) Gear depth (of footrope) at start of fishing (m).
   m) Bottom (seabed) depth at start of fishing (m).
   n) Gear depth (of footrope) at end of fishing (m).
   o) Bottom (seabed) depth at end of fishing (m).
   p) Status of the trawl operation (no damage, lightly damaged*, heavily damaged*, other (specify)). *Degree may be evaluated by time for repairing (<=1hr or >1hr)
   q) Duration of estimated period of seabed contact (minute)
   r) Intended target species.
   s) Catch of all species retained on board, split by species, in weight (to the nearest kg).
   t) Estimate of the amount (weight or volume) of all living marine resources discarded, split by species.
   u) Record of the numbers by species of all marine mammals, seabirds or reptiles caught.
   v) Record of sensitive benthic species in the trawl catch, particularly vulnerable or habitat-forming species such as sponges, sea-fans or corals.

C. Catch & Effort Data to be collected for Bottom Gillnet Fishing Activity

1. Data are to be collected on an un-aggregated (set by set) basis for all observed bottom gillnet sets.

2. The following data are to be collected for each observed bottom gillnet set:
   a) Set start date (UTC).
   b) Set start time (UTC).
   c) Set end date (UTC).
   d) Set end time (UTC).
   e) Set start position (Lat/Lon, 1 minute resolution).
   f) Set end position (Lat/Lon, 1 minute resolution).
   g) Net panel (“tan”) length (m).

h) Net panel ("tan") height (m).
i) Net mesh size (stretched mesh, mm) and mesh type (diamond, square, etc)
j) Bottom depth at start of setting (m).
k) Bottom depth at end of setting (m).
l) Number of net panels for the set.
m) Number of net panels retrieved.
n) Number of net panels actually observed during the haul.
o) Actually observed catch of all species retained on board, split by species, in weight (to the nearest kg).
p) An estimation of the amount (numbers or weight) of marine resources discarded, split by species, during the actual observation.
q) Record of the actually observed numbers by species of all marine mammals, seabirds or reptiles caught.
r) Intended target species.
s) Catch of all species retained on board, split by species, in weight (to the nearest kg).
t) Estimate of the amount (weight or volume) of all marine resources discarded* and dropped-off, split by species. * Including those retained for scientific samples.
u) Record of the numbers by species of all marine mammals, seabirds or reptiles caught (including those discarded and dropped-off).

D. Catch & Effort Data to be collected for Bottom Long Line Fishing Activity

1. Data are to be collected on an un-aggregated (set by set) basis for all observed longline sets.

2. The following fields of data are to be collected for each set:
   a) Set start date (UTC).
   b) Set start time (UTC).
   c) Set end date (UTC).
   d) Set end time (UTC).
   e) Set start position (Lat/Lon, 1 minute resolution).
   f) Set end position (Lat/Lon, 1 minute resolution).
   g) Total length of longline set (m).
   h) Number of hooks for the set.
   i) Bottom (seabed) depth at start of set.
   j) Bottom (seabed) depth at end of set.
   k) Number of hooks actually observed during the haul.
   l) Intended target species.
   m) Actually observed catch of all species retained on board, split by species, in weight (to the nearest kg).
   n) An estimation of the amount (numbers or weight) of marine resources discarded* or dropped-off, split by species, during the actual observation. * Including those retained for scientific samples.
   o) Record of the actually observed numbers by species of all marine mammals, seabirds or reptiles caught (including those discarded and dropped-off).

E. Length-Frequency Data to Be Collected

1. Representative and randomly distributed length-frequency data (to the nearest mm, with record of the type of length measurement taken) are to be collected for representative samples of the target species and other main by-catch species. Total weight of length-frequency samples should be recorded, and observers may be required to also determine sex of measured fish to generate length-frequency data stratified by sex. The length-frequency data may be used as potential indicators of ecosystem changes (for sample, see: Gislason, H. et al. (2000. ICES J Mar Sci 57: 468-475) Yamane et al. (2005. ICES J Mar Sci, 62: 374-379), and Shin, Y-J. et al. (2005. ICES J Mar Sci, 62: 384-396)).

2. The numbers of fish to be measured for each species and distribution of samples across area and month strata should be determined, to ensure that samples are properly representative of species distributions and size ranges.

F. Biological sampling to be conducted (optional for gillnet and long line fisheries)

1. The following biological data are to be collected for representative samples of the main target species and, time permitting, for other main by-catch species contributing to the catch: a) Species
   b) Length (to the nearest mm), with record of the type of length measurement used.
   c) Length and depth in case of North Pacific armorhead.
   d) Sex (male, female, immature, unsexed)
   e) Maturity stage (immature, mature, ripe, ripe-running, spent)

2. Representative stratified samples of otoliths are to be collected from the main target species and, time permitting, from other main by-catch species regularly occurring in catches. All otoliths to be collected are to be labelled with the information listed in 1 above, as well as the date, vessel name, observer name and catch position.

3. Where specific trophic relationship projects are being conducted, observers may be requested to also collect stomach samples from certain species. Any such samples collected are also to be labelled with the information listed in 1 above, as well as the date, vessel name, observer name and catch position.

4. Observers may also be required to collect tissue samples as part of specific genetic research programmes implemented by the SC.

5. Observers are to be briefed and provided with written length-frequency and biological sampling protocols and priorities for the above sampling specific to each observer trip.

G. Data to be collected on Incidental Captures of Protected Species

1. Flag members operating observer programs are to develop, in cooperation with the SC, lists and identification guides of protected species or species of concern (seabirds, marine mammals or marine reptiles) to be monitored by observers.

2. The following data are to be collected for all protected species caught in fishing operations:
   a) Species (identified as far as possible, or accompanied by photographs if identification is difficult).
   b) Count of the number caught per tow or set.
   c) Life status (vigorous, alive, lethargic, dead) upon release.
   d) Whole specimens (where possible) for onshore identification. Where this is not possible, observers may be required to collect sub-samples of identifying parts, as specified in biological sampling protocols.

H. Detection of Fishing in Association with Vulnerable Marine Ecosystems

1. The SC is to develop a guideline, species list and identification guide for benthic species (e.g. sponges, sea fans, corals) whose presence in a catch will indicate that fishing occurred in association with a vulnerable marine ecosystem (VME). All observers on vessels are to be provided with copies of this guideline, species list and ID guide.

2. For each observed fishing operation, the following data are to be collected for all species caught, which appear on the list of vulnerable benthic species:
   a) Species (identified as far as possible, or accompanied by a photograph where identification is difficult).
   b) An estimate of the quantity (weight (kg) or volume (m^3)) of each listed benthic species caught in the fishing operation.
   c) An overall estimate of the total quantity (weight (kg) or volume (m^3)) of all invertebrate benthic species caught in the fishing operation.
   d) Where possible, and particularly for new or scarce benthic species which do not appear in ID guides, whole samples should be collected and suitable preserved for identification on shore.

I. Data to be collected for all Tag Recoveries

1. The following data are to be collected for all recovered fish, seabird, mammal or reptile tags:
   a) Observer name.
   b) Vessel name.
   c) Vessel call sign.
   d) Vessel flag.
   e) Collect, label (with all details below) and store the actual tags for later return to the tagging agency.
   f) Species from which tag recovered.
   g) Tag colour and type (spaghetti, archival).
   h) Tag numbers (The tag number is to be provided for all tags when multiple tags were attached to one fish. If only one tag was recorded, a statement is required that specifies whether or not the other tag was missing)
   i) Date and time of capture (UTC).
   j) Location of capture (Lat/Lon, to the nearest 1 minute)

k) Animal length / size (to the nearest cm) with description of what measurement was taken (such as total length, fork length, etc).
l) Sex (F=female, M=male, I=indeterminate, D=not examined)
m) Whether the tags were found during a period of fishing that was being observed (Y/N)
n) Reward information (e.g. name and address where to send reward)

(It is recognised that some of the data recorded here duplicates data that already exists in the previous categories of information. This is necessary because tag recovery information may be sent separately to other observer data.)

J. Hierarchies for Observer Data Collection

1. Trip-specific or programme-specific observer task priorities may be developed in response to specific research programme requirements, in which case such priorities should be followed by observers.

2. In the absence of trip- or programme-specific priorities, the following generalised priorities should be followed by observers:

   a) Fishing Operation Information
      - All vessel and tow / set / effort information.

   b) Monitoring of Catches
      - Record time, proportion of catch (e.g. proportion of trawl landing) or effort (e.g. number of hooks), and total numbers of each species caught.
      - Record numbers or proportions of each species retained or discarded.

   c) Biological Sampling
      - Length-frequency data for target species.
      - Length-frequency data for main by-catch species.
      - Identification and counts of protected species.
      - Basic biological data (sex, maturity) for target species.
      - Check for presence of tags.
      - Otoliths (and stomach samples, if being collected) for target species.
      - Basic biological data for by-catch species.
      - Biological samples of by-catch species (if being collected)
      - Photos

3. The monitoring of catches and biological sampling procedures should be prioritised among species groups as follows:

Species	**Priority (1 highest)**
Primary target species (such as North Pacific armorhead and splendid alfonsin)	1
Other species typically within top 10 in the fishery (such as mirror dory, and oreos)	2

Protected species	3
All other species	4

The allocation of observer effort among these activities will depend on the type of operation and setting. The size of sub-samples relative to unobserved quantities (e.g. number of hooks/panels examined for species composition relative to the number of hooks/panels retrieved) should be explicitly recorded under the guidance of member country observer programmes.

K. Coding Specifications to be used for Recording Observer Data

1. Unless otherwise specified for specific data types, observer data are to be collected in accordance with the same coding specifications as specified in this Annex.

2. Coordinated Universal Time (UTC) is to be used to describe times.

3. Degrees and minutes are to be used to describe locations.

4. The following coding schemes are to be used:
   a) Species are to be described using the FAO 3 letter species codes.
   b) Fishing methods are to be described using the International Standard Classification of Fishing Gear (ISSCFG - 29 July 1980) codes.
   c) Types of fishing vessel are to be described using the International Standard Classification of Fishery Vessels (ISSCFV) codes.

5. 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.

ANNEX J
CMM 2016-06

CONSERVATION AND MANAGEMENT MEASURE FOR BOTTOM FISHERIES AND PROTECTION OF VULNERABLE MARINE ECOSYSTEMS IN THE NORTHEASTERN PACIFIC OCEAN

The North Pacific Fisheries Commission (NPFC):

Seeking to ensure the long term conservation and sustainable use of the fishery resources of the Northeast Pacific Ocean and, in so doing, protect the vulnerable marine ecosystems that occur there, in accordance with the Sustainable Fisheries Resolutions adopted by the United Nations General Assembly (UNGA) including, in particular, paragraphs 66 to 71 of the UNGA59/25 in 2004, paragraphs 69 to 74 of UNGA60/31 in 2005, paragraphs 69 and 80 to 91 of UNGA61/105 in 2006, and paragraphs 113 to 124 of UNGA64/72 in 2009;

Recalling that paragraph 85 of UNGA 61/105 calls upon participants in negotiations to establish regional fisheries management organizations or arrangements with the competence to regulate bottom fisheries to adopt permanent measures in respect of the area of application of the instruments under negotiation;

Noting that North Pacific Fisheries Commission has previously adopted interim measures for the Northeast Pacific Ocean;

Conscious of the need to adopt permanent measures for the Northeast Pacific Ocean to ensure that this area is not left as the only major area of the Pacific Ocean where no such measures are in place;

Hereby adopt the following Conservation and Management Measure (CMM) for bottom fisheries of the Northeast Pacific Ocean while working to develop and implement other permanent management arrangements to govern these and other fisheries in the North Pacific Ocean.

Scope

1. These Measures are to be applied to all bottom fishing activities throughout the high seas areas of the Northeastern Pacific Ocean, defined, for the purposes of this document, as those occurring in the Convention Area as set out in Article 4 of the Convention text to the east of the line of 175 degrees W longitude (here in after called “the eastern part of the Convention Area”) including all such areas and marine species other than those species already covered by existing international fisheries management instruments, including bilateral agreements and Regional Fisheries Management Organizations or Arrangements.

For the purpose of these Measures, the term vulnerable marine ecosystems is to be

interpreted and applied in a manner consistent with the International Guidelines on the Management of Deep Sea Fisheries on the High Seas adopted by the FAO on 29 August 2008 (see Annex 2 for further details).

2. The implementation of these Measures shall:
   (a) be based on the best scientific information available in accordance with existing international laws and agreements including UNCLOS and other relevant international instruments,
   (b) establish appropriate and effective conservation and management measures,
   (c) be in accordance with the precautionary approach, and
   (d) incorporate an ecosystem approach to fisheries management. Actions by Members of the Commission

3. Members of the Commission will take the following actions in respect of vessels operating under its Flag or authority in the area covered by these Measures:

   (a) Conduct the assessments called for in paragraph 83(a) of UNGA Resolution 61/105, in a manner consistent with the FAO Guidelines and the Standards and Criteria included in Annex 2;
   (b) Submit to the SC their assessments conducted pursuant to subparagraph (a) of this paragraph, including all relevant data and information in support of any such assessment, and receive advice and recommendations from the SC, in accordance with the procedures in Annex 2;
   (c) Taking into account all advice and recommendations received from the SC, determine whether the fishing activity or operations of the vessel in question are likely to have a significant adverse impact on any vulnerable marine ecosystem;
   (d) If it is determined that the fishing activity or operations of the vessel or vessels in question would have a significant adverse impact on vulnerable marine ecosystems, adopt conservation and management measures to prevent such impacts on the basis of advice and recommendations of the SC, which are subject to adoption by the Commission;
   (e) Ensure that if any vessels are already engaged in bottom fishing, that such assessments have been carried out in accordance with paragraph 119(a)/UNGA RES 2009, the determination called for in subparagraph (c) of this paragraph has been rendered and, where appropriate, managements measures have been implemented in accordance with the advice and recommendations of the SC, which are subject to adoption by the Commission;
   (f) Further ensure that they will only authorize fishing activities on the basis of such assessments and any comments and recommendations from the SC;
   (g) Prohibit its vessels from engaging in directed fishing on the following orders: Alcyonacea, Antipatharia, Gorgonacea, and Scleractinia as well as any other indicator species for vulnerable marine ecosystems as may be identified from time to time by the SC and approved by the Commission;
   (h) In respect of areas where vulnerable marine ecosystems are known to occur or are likely to occur, based on the best available scientific information, ensure that bottom fishing activities do not proceed unless conservation and

management measures have been established to prevent significant adverse impacts on vulnerable marine ecosystems;

(i) Limit fishing effort in bottom fisheries on the Eastern part of the Convention Area to the level of a historical average (baseline to be determined through consensus in the SC) in terms of the number of fishing vessels and other parameters which reflect the level of fishing effort, fishing capacity or potential impacts on marine ecosystems dependent on new SC advice;

(j) Further, considering accumulated information regarding fishing activities in the Eastern part of the Convention Area, in areas where, in the course of fishing operations, cold water corals or other indicator species as identified by the SC that exceed 50Kg are encountered in one gear retrieval, Members of the Commission shall require vessels flying their flag to cease bottom fishing activities in that location. In such cases, the vessel shall not resume fishing activities until it has relocated a sufficient distance, which shall be no less than 2 nautical miles, so that additional encounters with VMEs are unlikely. All such encounters, including the location and the species in question, shall be reported to the Secretariat, who shall notify the other Members of the Commission so that appropriate measures can be adopted in respect of the relevant site. It is agreed that the cold water corals include: Alcyonacea, Antipatharia, Gorgonacea, and Scleractinia, as well as any other indicator species for vulnerable marine ecosystems as may be identified from time to time by the SC and approved by the Commission.

4. All assessments and determinations by any Member as to whether fishing activity would have significant adverse impacts on vulnerable marine ecosystems, as well as measures adopted in order to prevent such impacts, will be made publicly available through agreed means.

Control of Bottom Fishing Vessels

5. Members will exercise full and effective control over each of their bottom fishing vessels operating in the high seas of the Northeastern Pacific Ocean, including by means of fishing licenses, authorizations or permits, and maintenance of a record of these vessels as outlined in the Convention and applicable CMM.

6. New and exploratory fishing will be subject to the exploratory fishery protocol included as Annex 1.

Scientific Committee (SC)

7. Scientific Committee will provide scientific support for the implementation of these CMMs.

Scientific Information

8. The Members shall provide all available information as required by the Commission for any current or historical fishing activity by their flag vessels, including the number of vessels by gear type, size of vessels (tons), number of fishing days or days on the fishing grounds, total catch by species, and areas fished (names or coordinates of

seamounts) to the NPFC Secretariat as soon as possible and no later than one month prior to SC meeting. The Secretariat will make such information available to SC.

9. Scientific research activities for stock assessment purposes are to be conducted in accordance with a research plan that has been provided to SC prior to the commencement of such activities.

Annex 1

EXPLORATORY FISHERY PROTOCOL IN THE NORTH PACIFIC OCEAN

1. From 1 January 2009, all bottom fishing activities in new fishing areas and areas where fishing is prohibited in a precautionary manner or with bottom gear not previously used in the existing fishing areas, are to be considered as "exploratory fisheries" and to be conducted in accordance with this protocol.

2. Precautionary conservation and management measures, including catch and effort controls, are essential during the exploratory phase of deep sea fisheries. Implementation of a precautionary approach to sustainable exploitation of deep sea fisheries shall include the following measures:

i. precautionary effort limits, particularly where reliable assessments of sustainable exploitation rates of target and main by-catch species are not available;
ii. precautionary measures, including precautionary spatial catch limits where appropriate, to prevent serial depletion of low-productivity stocks;
iii. regular review of appropriate indices of stock status and revision downwards of the limits listed above when significant declines are detected;
iv. measures to prevent significant adverse impacts on vulnerable marine ecosystems; and
v. comprehensive monitoring of all fishing effort, capture of all species and interactions with VMEs.

3. When a member of the Commission would like to conduct exploratory fisheries, it is to follow the following procedure:

(1) Prior to the commencement of fishing, the member of the Commission is to circulate the information and assessment in Appendix 1.1 to the members of the Scientific Committee (SC) for review and to all members of the Commission for information, together with the impact assessment. Such information is to be provided to the other members at least 30 days in advance of the meeting at which the information shall be reviewed.

(2) The assessment in (1) above is to be conducted in accordance with the procedure set forth in "Science-based Standards and Criteria for Identification of VMEs and Assessment of Significant Adverse Impacts on VMEs and Marine Species (Annex 2)", with the understanding that particular care shall be taken in the evaluation of risks of the significant adverse impact on vulnerable marine ecosystems (VMEs), in line with the precautionary approach.

(3) The SC is to review the information and the assessment submitted in (1) above in accordance with "SC Assessment Review Procedures for Bottom Fishing Activities (Annex 3)."

(4) The exploratory fisheries are to be permitted only where the assessment concludes that they would not have significant adverse impacts (SAIs) on marine species or any VMEs and on the basis of comments and recommendations of SC. Any determinations, by any Member of the Commission or the SC, that the exploratory fishing activities would not have SAIs on marine species or any VMEs, shall be made publicly available through the NPFC website.

4. The member of the Commission is to ensure that all vessels flying its flag conducting exploratory fisheries are equipped with a satellite monitoring device and have an observer on board at all times.

5. Within 3 months of the end of the exploratory fishing activities or within 12 months of the commencement of fishing, whichever occurs first, the member of the Commission is to provide a report of the results of such activities to the members of the SC and all members of the Commission. If the SC meets prior to the end of this 12 month period, the member of the Commission is to provide an interim report 30 days in advance of the SC meeting. The information to be included in the report is specified in Appendix 1.2.

6. The SC is to review the report in 5 above, and decide whether the exploratory fishing activities had SAIs on marine species or any VME. The SC then is to send its recommendations to the Commission on whether the exploratory fisheries can continue and whether additional management measures shall be required if they are to continue. The Commission is to strive to adopt conservation and management measures to prevent SAIs on marine species or any VMEs. If the Commission is not able to reach consensus on any such measures, each fishing member of the Commission is to adopt measures to avoid any SAIs on VMEs.

7. Members of the Commission shall only authorize continuation of exploratory fishing activity, or commencement of commercial fishing activity, under this protocol on the basis of comments and recommendations of the SC.

Appendix 1.1

Information to be provided before exploratory fisheries start

1. A harvesting plan
- Name of vessel
- Flag member of vessel
- Description of area to be fished (location and depth)
- Fishing dates
- Anticipated effort
- Target species
- Bottom fishing gear-type used

- Area and effort restrictions to ensure that fisheries occur on a gradual basis in a limited geographical area.

2. A mitigation plan
- Measures to prevent SAIs to VMEs that may be encountered during the fishery

3. A catch monitoring plan
- Recording/reporting of all species brought onboard to the lowest possible taxonomic level
- 100% satellite monitoring
- 100% observer coverage

4. A data collection plan
- Data is to be collected in accordance with "Type and Format of Scientific Observer Data to be Collected" (Annex 5)

Appendix 1.2

Information to be included in the report

- Name of vessel
- Flag member of vessel
- Description of area fished (location and depth)
- Fishing dates
- Total effort
- Bottom fishing gear-type used
- List of VME encountered (the amount of VME indicator species for each encounter specifying the location: longitude and latitude)
- Mitigation measures taken in response to the encounter of VME
- List of all organisms brought onboard
- List of VMEs indicator species brought onboard by location: longitude and latitude

SCIENCE-BASED STANDARDS AND CRITERIA FOR IDENTIFICATION OF VMES AND ASSESSMENT OF SIGNIFICANT ADVERSE IMPACTS ON VMES AND MARINE SPECIES

1. Introduction

Members of the Commission have hereby established science-based standards and criteria to guide their implementation of United Nations General Assembly (UNGA) Resolution 61/105 and the measures adopted by Members in respect of bottom fishing activities in the North Pacific Ocean (NPO). In this regard, these science-based standards and criteria are to be applied to identify vulnerable marine ecosystems (VMEs) and assess significant adverse impacts (SAIs) of bottom fishing activities on such VMEs or marine species and to promote the long-term sustainability of deep sea fisheries in the Convention Area. The science-based standards and criteria are consistent with the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, taking into account the work of other RFMOs implementing management of deep-sea bottom fisheries in accordance with UNGA Resolution 61/105. The standards and criteria are to be modified from time to time as more data are collected through research activities and monitoring of fishing operations.

2. Purpose

(1) The purpose of the standards and criteria is to provide guidelines for each member of the Commission in identifying VMEs and assessing SAIs of individual bottom fishing activities[4] on VMEs or marine species in the Convention Area. Each member of the Commission, using the best information available, is to decide which species or areas are to be categorized as VMEs, identify areas where VMEs are known or likely to occur, and assess whether individual bottom fishing activities would have SAIs on such VMEs or marine species. The results of these tasks are to be submitted to and reviewed by the Scientific Committee with a view to reaching a common understanding among the members of the Commission.

(2) For the purpose of applying the standards and criteria, the bottom fisheries are defined as follows:
   a. The fisheries are conducted in the Convention Area;
   b. The total catch (everything brought up by the fishing gear) includes species that can only sustain low exploitation rates; and
   c. The fishing gear is likely to contact the seafloor during the normal course of fishing operations

3. Definition of VMEs

(1) Although Paragraph 83 of UNGA Resolution 61/105 refers to seamounts, hydrothermal vents and cold water corals as examples of VMEs, there is no definitive list of specific species or areas that are to be regarded as VMEs.

[4] "individual bottom fishing activities" means fishing activities by each fishing gear. For example, if ten fishing vessels operate bottom trawl fishing in a certain area, the impacts of the fishing activities of these vessels on the ecosystem are to be assessed as a whole rather than on a vessel-by-vessel basis. It should be noted that if the total number or capacity of the vessels using the same fishing gear has increased, the impacts of the fishing activities are to be assessed again.

(2) Although Paragraph 83 of UNGA Resolution 61/105 refers to seamounts, hydrothermal vents and cold water corals as examples of VMEs, there is no definitive list of specific species or areas that are to be regarded as VMEs.

(3) Vulnerability is related to the likelihood that a population, community or habitat will experience substantial alteration by fishing activities and how much time will be required for its recovery from such alteration. The most vulnerable ecosystems are those that are both easily disturbed and are very slow to recover, or may never recover. The vulnerabilities of populations, communities and habitats are to be assessed relative to specific threats. Some features, particularly ones that are physically fragile or inherently rare may be vulnerable to most forms of disturbance, but the vulnerability of some populations, communities and habitats may vary greatly depending on the type of fishing gear used or the kind of disturbance experienced. The risks to a marine ecosystem are determined by its vulnerability, the probability of a threat occurring and the mitigation means applied to the threat. Accordingly, the FAO Guidelines only provide examples of potential vulnerable species groups, communities and habitats as well as features that potentially support them (Annex 2.1).

(4) A marine ecosystem is to be classified as vulnerable based on its characteristics. The following list of characteristics is used as criteria in the identification of VMEs.

(a) Uniqueness or rarity - an area or ecosystem that is unique or that contains rare species whose loss could not be compensated for by other similar areas. These include:
  (i) Habitats that contain endemic species;
  (ii) Habitats of rare, threatened or endangered species that occur in discrete areas;
  (iii) Nurseries or discrete feeding, breeding, or spawning areas
(b) Functional significance of the habitat – discrete areas or habitats that are necessary for the survival, function, spawning/reproduction or recovery of fish stocks, particular life-history stages (e.g. nursery grounds or rearing areas), or of rare, threatened or endangered marine species.
(c) Fragility – an ecosystem that is highly susceptible to degradation by anthropogenic activities
(d) Life-history traits of component species that make recovery difficult – ecosystems that are characterized by populations or assemblages of species with one or more of the following characteristics:
  (i) Slow growth rates
  (ii) Late age of maturity
  (iii) Low or unpredictable recruitment
  (iv) Long-lived
(e) Structural complexity – an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features. In these ecosystems, ecological processes are usually highly dependent on these structured systems. Further, such ecosystems often have high diversity, which is dependent on the structuring organisms.

(5) Management response may vary, depending on the size of the ecological unit in the Convention Area. Therefore, the spatial extent of the ecological unit is to be decided first. That is, whether the ecological unit is the entire Area, or the current fishing ground, namely, the Emperor Seamount and Northern Hawaiian Ridge area (hereinafter called "the ES-NHR area"), or a group of the seamounts within the ES-NHR area, or each seamount in the ES-NHR area, is to be decided using the above criteria.

4. Identification of potential VMEs

(1) Fished seamounts

(a) Identification of fished seamounts

It is reported that four types of fishing gear are currently used by the members of the Commission in the ES-NHR area, namely, bottom trawl, bottom gillnet, bottom longline and pot. A fifth type of fishing gear (coral drag) was used in the ES-NHR area from the mid-1960s to the late 1980s and is possibly still used by non-members of the Commission. These types of fishing gear are usually used on the top or slope of seamounts, which could be considered VMEs. It is therefore necessary to identify the footprint of the bottom fisheries (fished seamounts) based on the available fishing record.

The following seamounts have been identified as fished seamounts: Suiko, Showa, Youmei, Nintoku, Jingu, Ojin, Northern Koko, Koko, Kinmei, Yuryaku, Kammu, Colahan, and C-H. Since the use of most of these gears in the ES-NHR area dates back to the late 1960s and 1970s, it is important to establish, to the extent practicable, a time series of where and when these gears have been used in order to assess potential long-term effects on any existing VMEs.

Fishing effort may not be evenly distributed on each seamount since fish aggregation may occur only at certain points of the seamount and some parts of the seamount may be physically unsuitable for certain fishing gears. Thus, it is important to know actual fished areas within the same seamount so as to know the gravity of the impact of fishing activities on the entire seamount.

Due consideration is to be given to the protection of commercial confidentiality when identifying actual fishing grounds.

(b) Assessment on whether a specific seamount that has been fished is a VME

After identifying the fished seamounts or fished areas of seamounts, it is necessary to assess whether each fished seamount is a VME or contains VMEs in accordance with the criteria in 3 above, individually or in combination using the best available scientific and technical information as well as Annex 2.1. A variety of data would be required to conduct such assessment, including pictures of seamounts taken by an ROV camera or drop camera, biological samples collected through research activities and observer programs, and detailed bathymetry map. Where site-specific information is lacking, other information that is relevant to inferring the likely presence of VMEs is to be used.

(2) New fishing areas

Any place other than the fished seamounts above is to be regarded as a new fishing area. If a member of the Commission is considering fishing in a new fishing area, such a fishing area is to be subject to, in addition to these standards and criteria, an exploratory fishery protocol (Annex 1).

5. Assessment of SAIs on VMEs or marine species

(1) Significant adverse impacts are those that compromise ecosystem integrity (i.e., ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types. Impacts are to be evaluated individually, in combination and cumulatively.

(2) When determining the scale and significance of an impact, the following six factors are to be considered:

(a) The intensity or severity of the impact at the specific site being affected;
(b) The spatial extent of the impact relative to the availability of the habitat type affected;
(c) The sensitivity/vulnerability of the ecosystem to the impact;
(d) The ability of an ecosystem to recover from harm, and the rate of such recovery;
(e) The extent to which ecosystem functions may be altered by the impact; and
(f) The timing and duration of the impact relative to the period in which a species needs the habitat during one or more life-history stages.

(3) Temporary impacts are those that are limited in duration and that allow the particular ecosystem to recover over an acceptable timeframe. Such timeframes are to be decided on a case-by-case basis and be on the order of 5-20 years, taking into account the specific features of the populations and ecosystems.

(4) In determining whether an impact is temporary, both the duration and the frequency with which an impact is repeated is to be considered. If the interval between the expected disturbances of a habitat is shorter than the recovery time, the impact is to be considered more than temporary.

(5) Each member of the Commission is to conduct assessments to establish if bottom fishing activities are likely to produce SAIs in a given seamount or other VMEs. Such an impact assessment is to address, *inter alia*::

(a) Type of fishing conducted or contemplated, including vessel and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing;

(b) Best available scientific and technical information on the current state of fishery resources, and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;
(c) Identification, description and mapping of VMEs known or likely to occur in the fishing area;
(d) The data and methods used to identify, describe and assess the impacts of the activity, identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment
(e) Identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low-productivity fishery resources in the fishing area;
(f) Risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be SAIs, particularly impacts on VMEs and low-productivity fishery resources (Risk assessments are to take into account, as appropriate, differing conditions prevailing in areas where fisheries are well established and in areas where fisheries have not taken place or only occur occasionally);
(g) The proposed mitigation and management measures to be used to prevent SAIs on VMEs and ensure long-term conservation and sustainable utilization of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations.

(6) Impact assessments are to consider, as appropriate, the information referred to in these Standards and Criteria, as well as relevant information from similar or related fisheries, species and ecosystems.

(7) Where an assessment concludes that the area does not contain VMEs or that significant adverse impacts on VMEs or marine species are not likely, such assessments are to be repeated when there have been significant changes to the fishery or other activities in the area, or when natural processes are thought to have undergone significant changes.

6. Proposed conservation and management measures to prevent SAIs

As a result of the assessment in 5 above, if it is considered that individual fishing activities are causing or likely to cause SAIs on VMEs or marine species, the member of the Commission is to adopt appropriate conservation and management measures to prevent such SAIs. The member of the Commission is to clearly indicate how such impacts are expected to be prevented or mitigated by the measures.

7. Precautionary approach

If after assessing all available scientific and technical information, the presence of VMEs or the likelihood that individual bottom fishing activities would cause SAIs on VMEs or marine species cannot be adequately determined, members of the Commission are only to authorize individual bottom fishing activities to proceed in accordance with:
(a) Precautionary, conservation and management measures to prevent SAIs;
(b) Measures to address unexpected encounters with VMEs in the course of fishing operations;
(c) Measures, including ongoing scientific research, monitoring and data collection, to reduce the uncertainty; and
(d) Measures to ensure long-term sustainability of deep sea fisheries.

8. Template for assessment report

Annex 2.2 is a template for individual member of the Commission to formulate reports on identification of VMEs and impact assessment.

Annex 2.1

EXAMPLES OF POTENTIAL VULNERABLE SPECIES GROUPS, COMMUNITIES AND HABITATS AS WELL AS FEATURES THAT POTENTIALLY SUPPORT THEM

The following examples of species groups, communities, habitats and features often display characteristics consistent with possible VMEs. Merely detecting the presence of an element itself is not sufficient to identify a VME. That identification is to be made on a case-by-case basis through application of relevant provisions of the Standards and Criteria, particularly Sections 3, 4 and 5.

Examples of species groups, communities and habitat forming species that are documented or considered sensitive and potentially vulnerable to deep-sea fisheries in the high-seas, and which may contribute to forming VMEs:	
a.	certain coldwater corals, e.g., reef builders and coral forest including: stony corals (scleractinia), alcyonaceans and gorgonians (octocorallia), black corals (antipatharia), and hydrocorals (stylasteridae),
b.	Some types of sponge dominated communities,
c.	communities composed of dense emergent fauna where large sessile protozoans (xenophyophores) and invertebrates (e.g., hydroids and bryozoans) form an important structural component of habitat, and
d.	seep and vent communities comprised of invertebrate and microbial species found nowhere else (i.e., endemic).

Examples of topographical, hydrophysical or geological features, including fragile geological structures, that potentially support the species groups or communities, referred to above:	
a.	submerged edges and slopes (e.g., corals and sponges),
b.	summits and flanks of seamounts, guyots, banks, knolls, and hills (e.g., corals, sponges, xenophyphores),
c.	canyons and trenches (e.g., burrowed clay outcrops, corals),
d.	hydrothermal vents (e.g., microbial communities and endemic invertebrates), and
e.	cold seeps (e.g., mud volcanoes, microbes, hard substrates for sessile invertebrates).

Annex 2.2

TEMPLATE FOR REPORTS ON IDENTIFICATION OF VMES AND ASSESSMENT OF IMPACTS CAUSED BY INDIVIDUAL FISHING ACTIVITIES ON VMES OR MARINE SPECIES

1. Name of the member of the Commission
2. Name of the fishery (e.g., bottom trawl, bottom gillnet, bottom longline, pot)
3. Status of the fishery (existing fishery or exploratory fishery)
4. Target species
5. Bycatch species
6. Recent level of fishing effort (every year at least since 2002)
   (1) Number of fishing vessels
   (2) Tonnage of each fishing vessel
   (3) Number of fishing days or days on the fishing ground

(4) Fishing effort (total operating hours for trawl, # of hooks per day for long-line, # of pots per day for pot, total length of net per day for gillnet)
(5) Total catch by species
(6) Names of seamounts fished or to be fished

7. Fishing period
8. Analysis of status of fishery resources
   (1) Data and methods used for analysis
   (2) Results of analysis
   (3) Identification of uncertainties in data and methods, and measures to overcome such uncertainties
9. Analysis of status of bycatch species resources
   (1) Data and methods used for analysis
   (2) Results of analysis
   (3) Identification of uncertainties in data and methods, and measures to overcome such uncertainties
10. Analysis of existence of VMEs in the fishing ground
   (1) Data and methods used for analysis
   (2) Results of analysis
   (3) Identification of uncertainties in data and methods, and measures to overcome such uncertainties
11. Impact assessment of fishing activities on VMEs or marine species including cumulative impacts, and identification of SAIs on VMEs or marine species, as detailed in Section 5 above, Assessment of SAIs on VMEs or marine species
12. Other points to be addressed
13. Conclusion (whether to continue or start fishing with what measures, or stop fishing)

Annex 3

SCIENTIFIC COMMITTEE ASSESSMENT REVIEW PROCEDURES FOR BOTTOM FISHING ACTIVITIES

1. The Scientific Committee (SC) is to review identifications of vulnerable marine ecosystems (VMEs) and assessments of significant adverse impact on VMEs, including proposed management measures intended to prevent such impacts submitted by individual Members.

2. Members of the Commission shall submit their identifications and assessments to members of the SC at least 21 days prior to the SC meeting at which the review is to take place. Such submissions shall include all relevant data and information in support of such determinations.

3. The SC will review the data and information in each assessment in accordance with the Science-based Standards and Criteria for Identification of VMEs and Assessment of Significant Adverse Impacts on VMEs and Marine Species (Annex 2), previous decisions of the Commission, and the FAO Technical Guidelines for the Management of Deep Sea Fisheries in the High Seas, paying special attention to the assessment process and criteria specified in paragraphs 47-49 of the Guidelines.

4. In conducting the review above, the SC will give particular attention to whether the deep-sea bottom fishing activity would have a significant adverse impact on VMEs and marine species and, if so, whether the proposed management measures would prevent such impacts.

5. Based on the above review, the SC will provide advice and recommendations to the submitting Members on the extent to which the assessments and related determinations are consistent with the procedures and criteria established in the documents identified above; and whether additional management measures will be required to prevent SAIs on VMEs.

6. Such recommendations will be reflected in the report of the SC meeting at which the assessments are considered.

Annex 4

FORMAT OF NATIONAL REPORT SECTIONS ON DEVELOPMENT AND IMPLEMENTATION OF SCIENTIFIC OBSERVER PROGRAMMES

Report Components

Annual Observer Programme implementation reports should form a component of annual National Reports submitted by members to the Scientific Committee. These reports should provide a brief overview of observer programmes conducted in the NPFC Convention Area. Observer programme reports should include the following sections:

A. Observer Training

An overview of observer training conducted, including:

- Overview of training programme provided to scientific observers.
- Number of observers trained.

B. Scientific Observer Programme Design and Coverage

Details of the design of the observer programme, including:

- Which fleets, fleet components or fishery components were covered by the programme.
- How vessels were selected to carry observers within the above fleets or components.
- How was observer coverage stratified: by fleets, fisheries components, vessel types, vessel sizes, vessel ages, fishing areas and seasons.

Details of observer coverage of the above fleets, including:

- Components, areas, seasons and proportion of total catches of target species, specifying units used to determine coverage.
- Total number of observer employment days, and number of actual days deployed on observation work.

C. Observer Data Collected

List of observer data collected against the agreed range of data set out in Annex 5, including:

- Effort Data: Amount of effort observed (vessel days, net panels, hooks, etc), by area and season and % observed out of total by area and seasons
- Catch Data: Amount of catch observed of target and by-catch species, by area and season, and % observed out of total estimated catch by species, area and seasons
- Length Frequency Data: Number of fish measured per species, by area and season.
- Biological Data: Type and quantity of other biological data or samples (otoliths, sex, maturity, etc) collected per species.
- The size of length-frequency and biological sub-samples relative to unobserved quantities.

D. Tag Return Monitoring

 Number of tags returns observed, by fish size class and area.

E. Problems Experienced

 Summary of problems encountered by observers and observer managers that could affect the NPFC Observer Programme Standards and/or each member's national observer programme developed under the NPFC standards.

Annex 5

NPFC BOTTOM FISHERIES
OBSERVER PROGRAMME STANDARDS: SCIENTIFIC COMPONENT
TYPE AND FORMAT OF SCIENTIFIC OBSERVER DATA TO BE COLLECTED

A. Vessel & Observer Data to be collected for Each Trip

1. Vessel and observer details are to be recorded only once for each observed trip.

2. The following vessel data are to be collected for each observed trip:
   a) Current vessel flag.
   b) Name of vessel.
   c) Name of the Captain.
   d) Name of the Fishing Master.
   e) Registration number.
   f) International radio call sign (if any).
   g) Lloyd's / IMO number (if allocated).
   h) Previous Names (if known).
   i) Port of registry.
   j) Previous flag (if any).
   k) Type of vessel.
   l) Type of fishing method(s).
   m) Length (m).
   n) Beam (m).
   o) Gross register tonnage (international tonnage).
   p) Power of main engine(s) (kilowatts).
   q) Hold capacity (cubic metres).
   r) Record of the equipment on board which may affect fishing power factors (navigational equipment, radar, sonar systems, weather fax or satellite weather receiver, sea-surface temperature image receiver, Doppler current monitor, radio direction finder).
   s) Total number of crew (all staff, excluding observers).

3. The following observer data are to be collected for each observed trip:
   a) Observer's name.
   b) Observer's organisation.

c) Date observer embarked (UTC date).
d) Port of embarkation.
e) Date observer disembarked (UTC date).
f) Port of disembarkation.

B. Catch & Effort Data to be collected for Trawl Fishing Activity

Data are to be collected on an un-aggregated (tow by tow) basis for all observed trawls.

1. The following data are to be collected for each observed trawl tow:
   a) Tow start date (UTC).
   b) Tow start time (UTC).
   c) Tow end date (UTC).
   d) Tow end time (UTC).
   e) Tow start position (Lat/Lon, 1 minute resolution).
   f) Tow end position (Lat/Lon, 1 minute resolution).
   g) Type of trawl, bottom or mid-water.
   h) Type of trawl, single, double or triple.
   i) Height of net opening (m).
   j) Width of net opening (m).
   k) Mesh size of the cod-end net (stretched mesh, mm) and mesh type (diamond, square, etc).
   l) Gear depth (of footrope) at start of fishing (m).
   m) Bottom (seabed) depth at start of fishing (m).
   n) Gear depth (of footrope) at end of fishing (m).
   o) Bottom (seabed) depth at end of fishing (m).
   p) Status of the trawl operation (no damage, lightly damaged*, heavily damaged*, other (specify)). *Degree may be evaluated by time for repairing (<=1hr or >1hr)
   q) Duration of estimated period of seabed contact (minute)
   r) Intended target species.
   s) Catch of all species retained on board, split by species, in weight (to the nearest kg).
   t) Estimate of the amount (weight or volume) of all living marine resources discarded, split by species.
   u) Record of the numbers by species of all marine mammals, seabirds or reptiles caught.
   v) Record of sensitive benthic species in the trawl catch, particularly vulnerable or habitat-forming species such as sponges, sea-fans or corals.

C. Catch & Effort Data to be collected for Bottom Gillnet Fishing Activity

1. Data are to be collected on an un-aggregated (set by set) basis for all observed bottom gillnet sets.

2. The following data are to be collected for each observed bottom gillnet set:

a) Set start date (UTC).
b) Set start time (UTC).
c) Set end date (UTC).
d) Set end time (UTC).
e) Set start position (Lat/Lon, 1 minute resolution).
f) Set end position (Lat/Lon, 1 minute resolution).
g) Net panel ("tan") length (m).
h) Net panel ("tan") height (m).
i) Net mesh size (stretched mesh, mm) and mesh type (diamond, square, etc)
j) Bottom depth at start of setting (m).
k) Bottom depth at end of setting (m).
l) Number of net panels for the set.
m) Number of net panels retrieved.
n) Number of net panels actually observed during the haul.
o) Actually observed catch of all species retained on board, split by species, in weight (to the nearest kg).
p) An estimation of the amount (numbers or weight) of marine resources discarded, split by species, during the actual observation.
q) Record of the actually observed numbers by species of all marine mammals, seabirds or reptiles caught.
r) Intended target species.
s) Catch of all species retained on board, split by species, in weight (to the nearest kg).
t) Estimate of the amount (weight or volume) of all marine resources discarded* and dropped-off, split by species. * Including those retained for scientific samples.
u) Record of the numbers by species of all marine mammals, seabirds or reptiles caught (including those discarded and dropped-off).

D. Catch & Effort Data to be collected for Bottom Long Line Fishing Activity

1. Data are to be collected on an un-aggregated (set by set) basis for all observed longline sets.

2. The following fields of data are to be collected for each set:
   a) Set start date (UTC).
   b) Set start time (UTC).
   c) Set end date (UTC).
   d) Set end time (UTC).
   e) Set start position (Lat/Lon, 1 minute resolution).
   f) Set end position (Lat/Lon, 1 minute resolution).
   g) Total length of longline set (m).
   h) Number of hooks for the set.
   i) Bottom (seabed) depth at start of set.
   j) Bottom (seabed) depth at end of set.
   k) Number of hooks actually observed during the haul.
   l) Intended target species.
   m) Actually observed catch of all species retained on board, split by species, in weight (to the nearest kg).
   n) An estimation of the amount (numbers or weight) of marine resources discarded* or dropped-off, split by species, during the actual observation. * Including those retained for scientific samples.
   o) Record of the actually observed numbers by species of all marine mammals, seabirds or reptiles caught (including those discarded and dropped-off).

E. Length-Frequency Data to Be Collected

1. Representative and randomly distributed length-frequency data (to the nearest mm, with record of the type of length measurement taken) are to be collected for representative samples of the target species and other main by-catch species. Total weight of length-frequency samples should be recorded, and observers may be required to also determine sex of measured fish to generate length-frequency data stratified by sex. The length-frequency data may be used as potential indicators of ecosystem changes (for seample, see: Gislason, H. et al. (2000. ICES J Mar Sci 57:
   468-475) Yamane et al. (2005. ICES J Mar Sci, 62: 374-379), and Shin, Y-J. et al. (2005. ICES J Mar Sci, 62: 384-396)).

2. The numbers of fish to be measured for each species and distribution of samples across area and month strata should be determined, to ensure that samples are properly representative of species distributions and size ranges.

F. Biological sampling to be conducted (optional for gillnet and long line fisheries)

1. The following biological data are to be collected for representative samples of the main target species and, time permitting, for other main by-catch species contributing to the catch:
   a) Species
   b) Length (to the nearest mm), with record of the type of length measurement used.
   c) Length and depth in case of North Pacific armorhead.
   d) Sex (male, female, immature, unsexed)
   e) Maturity stage (immature, mature, ripe, ripe-running, spent)

2. Representative stratified samples of otoliths are to be collected from the main target species and, time permitting, from other main by-catch species regularly occurring in catches. All otoliths to be collected are to be labelled with the information listed in 1 above, as well as the date, vessel name, observer name and catch position.

3. Where specific trophic relationship projects are being conducted, observers may be requested to also collect stomach samples from certain species. Any such samples collected are also to be labelled with the information listed in 1 above, as well as the date, vessel name, observer name and catch position.

4. Observers may also be required to collect tissue samples as part of specific genetic research programmes implemented by the SC.

5. Observers are to be briefed and provided with written length-frequency and biological sampling protocols and priorities for the above sampling specific to each observer trip.

G. Data to be collected on Incidental Captures of Protected Species

1. Flag members operating observer programs are to develop, in cooperation with the SC, lists and identification guides of protected species or species of concern seabirds, marine mammals or marine reptiles) to be monitored by observers.

2. The following data are to be collected for all protected species caught in fishing operations:
   a) Species (identified as far as possible, or accompanied by photographs if identification is difficult).
   b) Count of the number caught per tow or set.

c) Life status (vigorous, alive, lethargic, dead) upon release.
d) Whole specimens (where possible) for onshore identification. Where this is not possible, observers may be required to collect sub-samples of identifying parts, as specified in biological sampling protocols.

H. Detection of Fishing in Association with Vulnerable Marine Ecosystems

1. The SC is to develop a guideline, species list and identification guide for benthic species (e.g. sponges, sea fans, corals) whose presence in a catch will indicate that fishing occurred in association with a vulnerable marine ecosystem (VME). All observers on vessels are to be provided with copies of this guideline, species list and ID guide.

2. For each observed fishing operation, the following data are to be collected for all species caught, which appear on the list of vulnerable benthic species:
   a) Species (identified as far as possible, or accompanied by a photograph where identification is difficult).
   b) An estimate of the quantity (weight (kg) or volume (m^3)) of each listed benthic species caught in the fishing operation.
   c) An overall estimate of the total quantity (weight (kg) or volume (m^3)) of all invertebrate benthic species caught in the fishing operation.
   d) Where possible, and particularly for new or scarce benthic species which do not appear in ID guides, whole samples should be collected and suitable preserved for identification on shore.

I. Data to be collected for all Tag Recoveries

1. The following data are to be collected for all recovered fish, seabird, mammal or reptile tags:
   a) Observer name.
   b) Vessel name.
   c) Vessel call sign.
   d) Vessel flag.
   e) Collect, label (with all details below) and store the actual tags for later return to the tagging agency.
   f) Species from which tag recovered.
   g) Tag colour and type (spaghetti, archival).

h) Tag numbers (The tag number is to be provided for all tags when multiple tags were attached to one fish. If only one tag was recorded, a statement is required that specifies whether or not the other tag was missing)
i) Date and time of capture (UTC).
j) Location of capture (Lat/Lon, to the nearest 1 minute)
k) Animal length / size (to the nearest cm) with description of what measurement was taken (such as total length, fork length, etc).
l) Sex (F=female, M=male, I=indeterminate, D=not examined)
m) Whether the tags were found during a period of fishing that was being observed (Y/N)
n) Reward information (e.g. name and address where to send reward)

(It is recognised that some of the data recorded here duplicates data that already exists in the previous categories of information. This is necessary because tag recovery information may be sent separately to other observer data.)

J. Hierarchies for Observer Data Collection

1. Trip-specific or programme-specific observer task priorities may be developed in response to specific research programme requirements, in which case such priorities should be followed by observers.

2. In the absence of trip- or programme-specific priorities, the following generalised priorities should be followed by observers:

a) Fishing Operation Information
   - All vessel and tow / set / effort information.

b) Monitoring of Catches
   - Record time, proportion of catch (e.g. proportion of trawl landing) or effort (e.g. number of hooks), and total numbers of each species caught.
   - Record numbers or proportions of each species retained or discarded.

c) Biological Sampling
   - Length-frequency data for target species.
   - Length-frequency data for main by-catch species.
   - Identification and counts of protected species.
   - Basic biological data (sex, maturity) for target species.

- Check for presence of tags.
- Otoliths (and stomach samples, if being collected) for target species.
- Basic biological data for by-catch species.
- Biological samples of by-catch species (if being collected)
- Photos

3. The monitoring of catches and biological sampling procedures should be prioritised among species groups as follows:

Species	Priority (1 highest)
Primary target species (such as North Pacific armorhead and splendid alfonsin)	1
Other species typically within top 10 in the fishery (such as mirror dory, and oreos)	2
Protected species	3
All other species	4

The allocation of observer effort among these activities will depend on the type of operation and setting. The size of sub-samples relative to unobserved quantities (e.g. number of hooks/panels examined for species composition relative to the number of hooks/panels retrieved) should be explicitly recorded under the guidance of member country observer programmes.

K. Coding Specifications to be used for Recording Observer Data

1. Unless otherwise specified for specific data types, observer data are to be collected in accordance with the same coding specifications as specified in this Annex.

2. Coordinated Universal Time (UTC) is to be used to describe times.

3. Degrees and minutes are to be used to describe locations.

4. The following coding schemes are to be used:
   a) Species are to be described using the FAO 3 letter species codes.
   b) Fishing methods are to be described using the International Standard Classification of Fishing Gear (ISSCFG - 29 July 1980) codes.

c) Types of fishing vessel are to be described using the International Standard Classification of Fishery Vessels (ISSCFV) codes.

5. 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.

ANNEX K

CMM 2016-07

CONSERVATIONS AND MANAGEMENT MEASURE FOR CHUB MACKEREL

The North Pacific Fisheries Commission (NPFC),

Recognizing the Commission has agreed to undertake a small *ad hoc* workshop for the scientific analysis of chub mackerel stock and its outcomes will be presented to the Scientific Committee (SC) for further discussion in the NPFC;

Reaffirms the General Principles provided in Article 3 of the Convention;

Adopts the following conservation and management measure in accordance with Article 7 of the Convention:

1. Members of the Commission and Cooperating non-Contracting Parties (CNCP) are encouraged to refrain from expansion, in the Convention area, of the number of fishing vessels entitled to fly their flags and authorized to fish for chub mackerel from the historical existing level until the stock assessment by the SC has been completed.

2. Members of the Commission participating in chub mackerel fisheries in areas under national jurisdiction adjacent to the Convention area are requested to take compatible measures in paragraph 1.

3. Members of the Commission and CNCP shall ensure that fishing vessels flying their flag operating in the Convention Area to fish chub mackerel are to be equipped with an operational vessel monitoring system that is activated at all times.

4. The Commission shall draw the attention of any non-Contracting Party to the Convention to any activity undertaken by its nationals or fishing vessels entitled to fly its flag that have participated in fishing activities for chub mackerel in the Convention Area in accordance with Article 20, paragraph 2 and shall request the non-Contracting Party to take necessary actions in accordance with Article 20, paragraph 3 of the Convention.

5. Members of the Commission and CNCPs shall provide their data on chub mackerel separated by the Convention Area and the areas under national jurisdiction adjacent to the Convention Area in accordance with the data requirements adopted by the Commission in the Annual Report by the end of February, 2017. The Commission shall review such information at the annual meeting of 2017.

6. The SC will complete the stock assessment of chub mackerel as soon as practicable, even if such assessment is provisional, and provide advice and recommendations to the Commission in accordance with Article 10, paragraph 4(b) of the Convention.

7. This management measure shall expire and be replaced by the measure to be adopted by the Commission based on the advice and recommendations from the Scientific Committee.

First Anniversary of the North Pacific Fisheries Commission