



North Pacific Fisheries Commission

NPFC

Compendium of Active Conservation and Management Measures for the North Pacific Fisheries Commission

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29 November 2019



North Pacific Fisheries Commission

COMPENDIUM OF ACTIVE CONSERVATION AND MANAGEMENT MEASURES FOR THE NORTH PACIFIC FISHERIES COMMISSION

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EXPLANATORY NOTE

The intent of this compendium is to create a quick reference to all active Conservation and Management Measures of the Commission. Many RFMOs have such documents to provide rapid historical information on active and superseded CMMs.

It is proposed that in future, CMMs would be written in the format noted below, eg. Times Roman 12pt; justified; Title including Year, CMM number and Title as Heading 1 style - [NPFC 2019-01 – INFORMATION REQUIREMENTS FOR VESSEL REGISTRATION]. The date each CMM came into force is included under the CMM number. The last two digits of the number remain with the CMM as it is amended, only the year of amendment changes. The common format and numbering system facilitate updating this reference and also the table of contents to assist you as a ready reference in future.

We trust that this publication, updated annually when new conservation and management measures come into force, will be of assistance to Members of the Commission, patrol aircraft and vessels, and inspectors.



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North Pacific Fisheries Commission



North Pacific Fisheries Commission

Fifth Annual NPFC Session

18 July 2019

Tokyo, Japan

Active CMMs



North Pacific Fisheries Commission

CMM 2019-01

(Entered into force 29 November 2019)

**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 or Cooperating non-Contracting Parties 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 or Cooperating non-Contracting Parties 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 Commission or Cooperating non-Contracting Parties. Each member of the Commission, or Cooperating non-Contracting Parties, 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 or Cooperating non-Contracting Parties have the need to conduct transshipment with carrier vessels that are flagged to Commission members, Cooperating non-Contracting Parties and non-members,

Noting the decision by the IMO Assembly in its 30th session to expand eligibility for IMO numbers to fishing vessels less than 100 gross tons down to a size limit of 12 meters in length overall authorized to operate outside waters under national jurisdiction of the flag State to assist in identifying and tracking fishing vessels and to tackle illegal, unreported and unregulated fishing,

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

NPFC Vessel Registry

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

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. Update pertinent information required from paragraph 1 in the NPFC Vessel Registry established under Article 13, paragraph 10 of the Convention, noting that vessel submissions which do not include the initial data elements as indicated in the Annex will not be accepted by the database.
3. Promptly update the NPFC Vessel Registry with:
 - (a) any additions to the record; e.g., new vessel authorizations;
 - (b) any modifications to this information with dates of such modifications; and
 - (c) 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.
4. 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.

Vessel Marking

5. Each Commission Member and Cooperating non Contracting Party shall ensure that every fishing vessel authorized to fly its flag bear markings that are readily identified in accordance with the *FAO Standard Specifications for the Marking and Identification of Fishing Vessels*, and recognize that non-compliance with these standards shall be considered a serious violation according to Article 17, paragraph 5 of the NPFC Convention and Article 21 Paragraph 11(f) of the United Nations Fish Stocks Agreement.

NPFC Interim Register of non-Member¹ Carrier Vessels

6. The Commission hereby establishes an Interim Register of non-members (the “Interim Register”), applicable from 2017 to 2019.
7. Commission Members or Cooperating non-Contracting Parties may use non-member Carrier vessels that are included by the Commission on the Interim Register 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.
8. Any Commission member or Cooperating non-Contracting Party may at any time enter, in electronic format if possible, the details of any non-member carrier vessels that it wishes to be included on the Interim Register including the information requirements in the Annex and the written undertaking of the owner, operator and Master noted in paragraph 10.

¹ For the purpose of this CMM, non-Members mean those states that are not Commission members or Cooperating non-Contracting Parties

9. The Commission member or Cooperating non-Contracting Parties entering vessels identified in paragraph 8 on the Interim 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);
 - (c) that were removed from the Interim Register pursuant to paragraph 16 within one year.
10. 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.
11. It is the responsibility of the owner or manager/operator to ensure that any such undertaking is compliant with domestic laws of its flag State.
12. The Secretariat shall 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 shall be a condition for inclusion on the Interim Register that the owner, manager/operator or master of the carrier vessel, through the Commission member or Cooperating non-Contracting Parties so authorizing the vessel to be on the Interim Register, promptly enter any changes to the information provided under paragraph 8.
13. 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.
14. The Commission member or Cooperating non-Contracting Parties listing the non-member carrier vessel on the Interim Register shall also be responsible for providing the information of that vessel in accordance with these conservation and management measures.
15. As soon as possible after entry of complete information under paragraphs 8 and 10 by a Commission member or Cooperating non-Contracting Parties for a non-member carrier vessel on the Interim Register, the Member or CNCP 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.
16. The Commission shall, on a regular basis, 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 shall:
 - (a) notify the 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.
17. The Commission shall monitor the performance of the vessels on the Interim Register with respect to the written undertakings submitted under paragraph 10. 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 16(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 17 (d).
18. The Interim Register has been extended and shall expire on 31 August 2020 unless the Commission decides otherwise at its Commission Meeting in 2020. The Interim Register shall only be used by non-Members who are not CNCPs

General

19. Commission members and Cooperating non-Contracting Parties shall ensure they have maintained the NPFC Vessel Registry and the Interim Register of the vessels based on the information provided to it pursuant to the above paragraphs 1-17 and make the record publicly available as appropriate and subject to any legal confidentiality regulations of the individual Commission member and Cooperating non-Contracting Party.
20. Each Commission member and Cooperating non-Contracting Party entering vessels on the NPFC Vessel Registry or the Interim Register shall enter the required data for its vessels or vessels listed on the Interim Registry immediately after it has so authorized the vessel to conduct fishing activities and shall not authorize the vessel to conduct such fishing activities in the NPFC Convention Area until the vessel has been accepted by the database.
21. The Commission shall also provide to any member of the Commission or Cooperating non-Contracting Parties, upon request, information about any vessel entered on the Commission record that is not otherwise publicly available, as appropriate.
22. This CMM shall replace the NPFC CMM 2018-01.

Vessel Information Requirements

The following are the data information to be provided to the Commission for the vessel registry.

- (a) Name of fishing vessel*;
 - (b) Previous name(s) of fishing vessel (where applicable);
 - (c) Registration number*;
 - (d) Previous registration number(s) (where applicable);
 - (e) Port of Registry;
 - (f) Previous port(s) of registry (where applicable);
 - (g) IMO number *;
- To allow the necessary time for members of the Commission or Cooperating non-Contracting Parties 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 2020. 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 vessels which are not eligible to receive IMO numbers.
- (h) Name and address of owner or owners*;
 - (i) Name* and citizenship of master;
 - (j) Previous flag (if any);
 - (k) International Radio Call Sign (IRCS)* (where applicable);
 - (l) Maritime Mobile Service Identity (MMSI) (where applicable);
 - (m) Vessel communication types and numbers including, when available, any satellite-based telephony or data services/devices;
 - (n) Full length side views color photographs of the vessel showing full length of vessel and vessel name and markings*. Provision of additional photographs showing bow and stern view are encouraged;
 - (o) Where*(Country/Member) and when built (Year);
 - (p) Type of vessel*, as specified in standard abbreviations under the current FAO International Standard Statistical Classification of Fishery Vessels by Vessel Types (ISSCFV);
 - (q) Normal crew complement;
 - (r) Type of fishing method or methods, as specified in standard abbreviations under the current FAO International Standard Statistical Classification of Fishing Gear (ISSCFG);
 - (s) Length*, including type of length* and unit of measurement*;
 - (t) Depth, including type of depth and unit of measurement;
 - (u) Beam*, including type of beam* and unit of measurement*;
 - (v) Gross register tonnage*, or gross tonnage* (specify which);
 - (w) Power of main engine or engines, including unit of measurement;
 - (x) The nature of the authorization to fish granted by the flag State, such as type or method of fisheries authorized and main target species and Authorized Periods*;
 - (y) Fish hold capacity, in cubic meters;
 - (z) Freezer type and capacity, including unit of measurement.

*Asterisk denotes initial data elements.

Initial data elements are required to start fishing activities.



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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 (CNCs) 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. Transship 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 6 below shall apply for proposals under this paragraph.
5. If a Member/CNCP has information that a vessel is presumed to be carrying out IUU activities in the Convention Area during the years from the previous meeting to the current year, the Member/CNCP with such information is encouraged to provide that information as soon as possible to, and consult with, any Member/CNCP or non-Contracting Party that may have a vessel presumed to be carrying out IUU activities for clarification before providing that information to the Executive Secretary under the provisions of paragraph 6.



Information on alleged IUU fishing activities

6. 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.
7. 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

8. The Executive Secretary shall draw up a draft IUU Vessel List incorporating the lists of vessels and suitably documented information received pursuant to para 6, 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.
9. 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.
10. 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.
11. 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.
12. 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 6 and 11 above.
13. 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



14. 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 8.
15. 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 29. 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 14 and this paragraph.
16. At its meeting, the TCC shall:
 - a. following consideration of the draft IUU Vessel List and the suitably documented information circulated under paras 8, 12 and 13, adopt a Provisional IUU Vessel List; and
 - b. following consideration of the current NPFC IUU Vessel List and the suitably documented information circulated under paras 14 and 15, recommend to the Commission which, if any, vessels should be removed from the current NPFC IUU Vessel List.
17. 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.
18. 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 7.
19. 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 29 of this measure.
20. Following the examination referred to in para 16, 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.
21. The draft IUU Vessel List, Provisional IUU Vessel List, and the NPFC IUU Vessel List shall contain the following details for each vessel:
 - a. name and previous names, if any;
 - b. flag and previous flags, if any;
 - c. owner and previous owners, including beneficial owners, if any;
 - d. operator and previous operators, if any;
 - e. call sign and previous call signs, if any;
 - f. Lloyds/IMO number, if any;
 - g. photographs, where available;
 - h. date first included on the IUU Vessel List;



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- i. CMM and paragraph noting violation;
- j. 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
- k. the date(s) and subsequent sightings of the vessels, if any, and any other related activities.

NPFC IUU Vessel List

22. 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 20 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.
23. 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.
24. 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.
25. 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.

26. 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.
27. 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.
28. 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 8 or 16, or that have been removed from the NPFC IUU Vessel List, pursuant to paras 19 and 22, on the grounds that such vessels are involved in IUU fishing activities.

Modification of the NPFC IUU Vessel List

29. 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.
30. 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.
31. 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.



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32. If Commission Members agree to the removal of the vessel from the NPFC IUU Vessel List within the period stipulated in para 31, 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.
33. 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.
34. 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

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



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

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. CMM and paragraph noting violation;
- j. 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);
- k. the date(s) and subsequent sightings of the vessels, if any, and any other related activities.

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 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	
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	Transship 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 measure	

Associated documents

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

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	



**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. CMM and paragraph noting violation;
- j. 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;
- k. the date(s) and subsequent sightings of the vessels, if any, and any other related activities.



**CONSERVATION AND MANAGEMENT MEASURE ON THE
INTERIM TRANSHIPMENT 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.



CMM 2016-04
(Entered into force 16 January 2017)

**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 (CNCs) 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 CNCs 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 CNCs 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



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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.



**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



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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:

- (a) be based on the best scientific information available,
- (b) be in accordance with existing international laws and agreements including UNCLOS and other relevant international instruments,
- (c) establish appropriate and effective conservation and management measures,
- (d) be in accordance with the precautionary approach, and
- (e) 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 Deepsea 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 taxa: *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 as soon as possible, 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, specifically for the latter seamount, the area South of 34 degrees 57 minutes North, East of the 400m isobaths, East of 171 degrees 54 minutes East, North of 34 degrees 50 minutes North, 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.
- L. Development of new fishing activity for the North Pacific armorhead and splendid alfonsino in the Convention Area by Members without documented historical catch for North Pacific armorhead and splendid alfonsino in the Convention Area shall be determined in accordance with relevant provisions, including but not limited to Article 3, paragraph (h) and Article 7, subparagraphs 1(g) and (h) of the Convention.
- M. In years when strong recruitment of North Pacific armorhead is not detected (Annex 6), the Commission encourages Japan to limit the annual catch of North Pacific armorhead by vessels flying its flag to 500 tons, and encourages Korea to limit the annual catch of North Pacific armorhead by vessels flying its flag to 200 tons. The Commission encourages that catch overages for any given year be subtracted from the applicable annual catch limit in the following year, and that catch underages during any given year not be added to the applicable annual catch limit during the following year.
- N. Notwithstanding subparagraph K, when a strong recruitment of North Pacific armorhead is detected through the monitoring surveys as specified in Annex 6, the Commission encourages that Japan limit the annual catch of North Pacific armorhead by vessels flying its flag to 10,000 tons, and that Korea limit the annual catch of North Pacific armorhead



by vessels flying its flag to 2,000 tons. The Commission encourages that catch overages for any given year be subtracted from the applicable annual catch limit in the following year, and that catch underages during any given year not be added to the applicable annual catch limit during the following year. During a year when high recruitment is detected, bottom fishing with trawl gear shall be prohibited in specific areas in the Emperor seamounts where half of the catch occurred in 2010 and 2012 (Annex 6). Determination of a strong recruitment year and of the specific areas where bottom fishing with trawl gear is prohibited shall be communicated to all Members and Cooperating Non-Contracting parties following the procedure specified in Annex 6.

- O. Catch in the monitoring surveys shall not be included in the catch limits specified in paragraphs M and N but shall be reported to the Secretariat.
- P. Fishing activity for the North Pacific armorhead and splendid alfonsino in the Convention Area by Members with documented historical catch for North Pacific armorhead and splendid alfonsino in the Convention Area is not precluded.
- Q. Members shall require vessels flying their flags to use trawl nets with mesh size greater than or equal to 130mm of stretched mesh with 5kg tension in the codend when conducting fishing activities for North Pacific armorhead or splendid alfonsino.
- R. Task the Scientific Committee with reviewing the appropriate methods for establishing catch limits, and the adequacy and practicability of the adaptive management plan described in subparagraphs K, L, M, N, O, P, Q and Annex 6 from time to time and recommending revisions and actions, if necessary.

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.



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- (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.



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:
 - (i) 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.
 - (ii) The assessment in (i) 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.
 - (iii) The SC is to review the information and the assessment submitted in (i) above in accordance with “SC Assessment Review Procedures for Bottom Fishing Activities (Annex 3).”
 - (iv) 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)



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- 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 the 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 activities² 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 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

² "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.

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 ESNHR 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 CH. 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 cold-water 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 (xenophyphores) 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 and 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).



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.

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. Detection of Fishing in Association with Vulnerable Marine Ecosystems

- Information about VME encounters (species and quantity in accordance with Annex 5, H, 2).

E. Tag Return Monitoring

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



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F. 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.

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 observer data are to be collected for each observed trip:
 - (a) NPFC vessel ID.
 - (b) Observer's name.
 - (c) Observer's organisation.
 - (d) Date observer embarked (UTC date).
 - (e) Port of embarkation.
 - (f) Date observer disembarked (UTC date).
 - (g) 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.



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 or traps for the set.
 - (i) Bottom (seabed) depth at start of set.
 - (j) Bottom (seabed) depth at end of set.
 - (k) Number of hooks or traps 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).



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- (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 example, 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, indeterminate, not examined)
 - (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 (m³)) of each listed benthic species caught in the fishing operation.
 - (c) An overall estimate of the total quantity (weight (kg) or volume (m³)) 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 alfonsino)	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 or, if species do not have a FAO code, using scientific names.



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- (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.

Implementation of the Adaptive Management for North Pacific armorhead (in 2019 and 2020)

1. Monitoring survey for the detection of strong recruitment of North Pacific armorhead

(1) Location of monitoring surveys

Monitoring surveys for the detection of strong recruitment of North Pacific armorhead will be conducted by trawl fishing vessels in the pre-determined two (2) monitoring blocks of Koko (South eastern) and Kammu (North western) seamounts.

Monitoring blocks

Survey Gear	Seamount	Latitude	Longitude	Fig. No.	Remarks
Trawl	Koko (South eastern)	34°51' N -35°04' N	171°49' E -172°00' E	Fig. 1	Except for the closed area set in paragraph 4.H, CMM 2019-05
Trawl	Kammu (North western)	32°10' N -32°21' N	172°44' E -172°57' E	Fig. 2	

Fig. 1

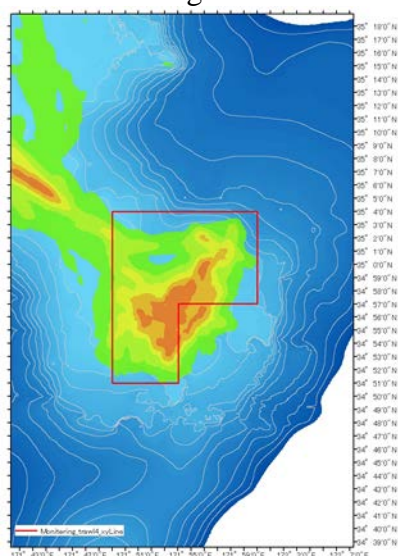
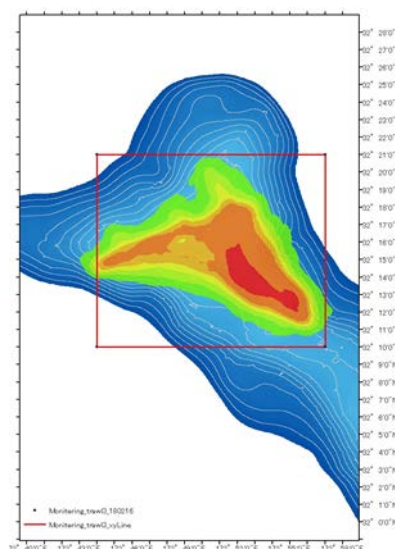


Fig. 2



(2) Schedule for monitoring surveys

Monitoring surveys will be conducted from March 1st to June 30th each year, with at least a one-week interval between monitoring surveys in the same monitoring block. The base schedule for monitoring surveys is shown in the table below. In total, sixteen (16) monitoring surveys will be conducted each year. The base schedule may be revised during the year subject to prior notification to the Executive Secretary.



Schedule for the Monitoring survey			
		Monitoring block in Koko (South eastern)	Monitoring block in Kammu (North western)
March	First half	○	○
	Latter half	○	○
April	First half	○	○
	Latter half	○	○
May	First half	○	○
	Latter half	○	○
June	First half	○	○
	Latter half	○	○

(3) Data to be collected during monitoring surveys

For each monitoring survey, a trawl net will be towed for one hour. A scientific observer onboard the trawl fishing vessel will calculate nominal-CPUE (kg/hour) of North Pacific armorhead. The scientific observer will also calculate fat index* (FI) of randomly sampled 100 individuals of North Pacific armorhead by measuring fork length (FL) and body height (BH) of each individual.

(*fat index (FI) = body height (BH) / fork length (FL))

(4) Prior notifications and survey results

At least three (3) days before each survey, a prior notification with monitoring date/time, location and trawl fishing vessel name will be provided by the flag state of the trawl fishing vessel to the Executive Secretary.

No later than three (3) days after each survey, the survey result including date/time, location, catch, nominal-CPUE (kg/hour) and percentage of fish with fat index (FI)>0.3 will be provided by the flag state to the Executive Secretary.

The Executive Secretary will circulate these prior notifications and survey results to all Members of the Commission without delay.

2. Areas where bottom fishing with trawl gear is prohibited when high recruitment is detected

(1) Criteria for a high recruitment

It is considered that high recruitment has occurred if the following criteria are met in four (4) consecutive monitoring surveys in each of the two (2) monitoring blocks.

- Nominal CPUE > 10t/h
- Individuals of fat index (FI)> 0.3 account for 80% or more

(2) Areas where bottom fishing with trawl gear is prohibited

Bottom fishing with trawl gear shall be prohibited in the following two (2) seamount areas (*) during the year when high recruitment is detected. In such a case, all monitoring surveys scheduled during the year will be cancelled.

- Northern part of Kammu seamount (north of 32°10.0' N)



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- Yuryaku seamount

(*) The catch of North Pacific armorhead in the above two seamounts accounts for a half of the total catch in the entire Emperor Seamounts area based on the catch records in 2010 and 2012.

(3) Notification by the Secretariat

When the criteria for high recruitment are met as defined in 2(1) above, the Executive Secretary will notify all Members of the Commission of the fact with a defined date/time from which bottom fishing with trawl gear is prohibited in the areas as defined in 2(2) above until the end of the year.



**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 Northeastern 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 Northeastern Pacific Ocean;

Conscious of the need to adopt permanent measures for the Northeastern 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 Northeastern 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,



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- c. be in accordance with the precautionary approach, and
- d. incorporate an ecosystem approach to fisheries management.

3. Actions by Members of the Commission

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 3;
- 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 based on information to be provided by Members) 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 as soon as possible, who shall notify the other Members of the Commission so that appropriate measures can be



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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, areas fished (names or coordinates of seamounts), and information from scientific observer programmes (see Annexes 4 and 5) 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.



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)



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 the 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 activities³ 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

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.

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).

(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. For example, whether the ecological unit is a group of seamounts, or an individual seamount in the Convention 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 two types of fishing gear are currently used by members of the Commission in the NE area, namely long-line hook and long-line trap. The footprint of the bottom fisheries (fished seamounts) is identified based on the available fishing record. The



following seamounts have been identified as fished seamounts at some point in the past: Brown Bear, Cobb, Warwick, Eickelberg, Pathfinder, Miller, Murray, Cowie, Surveyor, Pratt, and Durgin. 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 (xenophyphores) 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).



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.

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. Detection of Fishing in Association with Vulnerable Marine Ecosystems

- Information about VME encounters (species and quantity in accordance with Annex 5, H, 2).

E. Tag Return Monitoring

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



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F. 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.



**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 observer data are to be collected for each observed trip:
 - a) NPFC vessel ID
 - b) Observer's name.
 - c) Observer's organisation.
 - d) Date observer embarked (UTC date).
 - e) Port of embarkation.
 - f) Date observer disembarked (UTC date).
 - g) 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.



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 or traps for the set.
 - i) Bottom (seabed) depth at start of set.
 - j) Bottom (seabed) depth at end of set.
 - k) Number of hooks or traps actually observed during the haul.
 - l) Intended target species.



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- 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 example, 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, indeterminate, not examined)
 - 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 (m³)) of each listed benthic species caught in the fishing operation.
 - c) An overall estimate of the total quantity (weight (kg) or volume (m³)) 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 alfonsino)	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 or, if species do not have a FAO code, using scientific names.
 - 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.



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**CONSERVATION AND MANAGEMENT MEASURE
FOR CHUB MACKEREL**

The North Pacific Fisheries Commission (NPFC),

Recognizing that outcomes of the small ad hoc workshop for the scientific analysis of chub mackerel stock were presented to the Scientific Committee (SC) in April 2017 and the SC recommended to establish the Technical Working Group on Chub Mackerel Stock Assessment (TWG CMSA);

Noting that CMM 2016-07 states 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;

Reaffirming the General Principles provided in Article 3 of the Convention, in particular, paragraph (h) stipulating that any expansion of fishing effort does not proceed without prior assessment of the impacts of those fishing activities on the long-term sustainability of fisheries resources;

Noting paragraph 1(a) of Article 7 of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 December 1995 (hereinafter, “1995 Agreement”), stipulating that the relevant coastal States and the States whose nationals fish for straddling fish stocks in the adjacent high seas area shall seek to agree upon the measures necessary for the conservation of these stocks in the adjacent high seas area;

Recognizing paragraph 2(a) of Article 7 of the 1995 Agreement stipulating that the conservation and management measures adopted and applied in accordance with article 61 of the United Nations Convention on the Law of the Sea in respect of the same stocks by coastal States within areas under national jurisdiction and ensure that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures;

Reaffirming paragraph (i) of Article 3 of the Convention, stipulating in accordance with Article 7 of the 1995 Agreement, that conservation and management measures established for straddling fish stocks on the high seas and those adopted for areas under national jurisdiction are compatible in order to ensure conservation and management of these fisheries resources in their entirety;

Recalling that concern was expressed on an adverse impact on the stock of chub mackerel given the rapid increase in vessels that appear to be fishing for chub mackerel in the Convention Area, as articulated in paragraphs 9 and 10 of Report of the 1st Meeting of the Technical and Compliance Committee;

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 (CNCs) with substantial harvest of chub mackerel in the Convention Area shall 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



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completed.

2. Members of the Commission and CNCPs without substantial harvest of chub mackerel in the Convention Area 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.
3. 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. Such Members⁴ may divert part of their catch limit for areas under their jurisdiction to their own catch of chub mackerel in the Convention Area by vessels entitled to fly their flags and authorized to fish for chub mackerel, provided that: (i) the Member has established a catch limit for chub mackerel in its jurisdiction; (ii) the Member has notified the Commission of the catch limit; and (iii) the total catch of the Member in the Convention Area and the areas under their jurisdiction adjacent to the Convention Area will not exceed the Member's total catch limit for its jurisdiction.
4. Development of new fishing activity for the chub mackerel fishery in the Convention Area by Members of the Commission without documented historical catch for chub mackerel in the Convention Area shall be determined in accordance with relevant provisions, including but not limited to, as appropriate, Article 3, paragraph (h) and Article 7, subparagraphs 1(g) and (h) of the Convention.
5. Members of the Commission and CNCPs 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.
6. 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, every year. The Commission shall review such information at the annual meeting of every year.
7. Members of the Commission and CNCPs shall cooperate to take necessary measures including sharing information, in order to accurately understand the situation and eliminate IUU fishing for chub mackerel.
8. The SC and its subsidiary Technical Working Group on Chub Mackerel Stock Assessment (TWG CMSA) will complete the stock assessment of chub mackerel as soon as possible in accordance with the terms of reference agreed at the TWG CMSA meeting in December 2017, 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.
9. After chub mackerel stock assessment has been completed, the provisions in Paragraph 1 shall be reviewed by the Commission and those provisions shall not be a precedent to hinder those Members who are not harvesting substantial amounts of chub mackerel in the Convention Area to develop their own chub mackerel fisheries in the Convention Area noting the Commission shall regularly review chub mackerel harvests in the Convention Area by all Members.

⁴ Paragraph 3 applies to Russia and Japan.



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10. 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.

11. This CMM is an amendment of the NPFC CMM 2018-07.



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CONSERVATION AND MANAGEMENT MEASURE FOR PACIFIC SAURY

The North Pacific Fisheries Commission (NPFC),

Reaffirming the General Principles, Article 3 of the Convention, in particular, paragraph (b) stipulating that measures are adopted, based on the best scientific information available, to ensure that fisheries resources are maintained at or restored to levels capable of producing maximum sustainable yield, and paragraph (f) stipulating that preventing or eliminating overfishing and excess fishing capacity and ensuring that levels of fishing effort or harvest levels are based on the best scientific information available and do not exceed those commensurate with the sustainable use of the fisheries resources;

Recognizing that Small Scientific Committee (SSC) on Pacific Saury and the Scientific Committee (SC) in 2019 provided consensus stock assessment results, including Maximum Sustainable Yield (MSY) and relevant reference quantities, and recommended that “the Commission: (h) Consider further management measures for avoiding an increasing trend in the exploitation rate of Pacific saury to sustain biomass”;

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

[EFFORT MANAGEMENT]

1. Members of the Commission, not described under Paragraph 2, and that are currently fishing for Pacific saury shall refrain from expansion, in the Convention Area, of the number of fishing vessels entitled to fly their flags and authorized to fish for Pacific saury from the historical existing level.
2. Members fishing for Pacific saury in areas of their jurisdiction that are adjacent to the Convention Area shall refrain from rapid expansion, in the Convention Area, of the number of fishing vessels entitled to fly their flags and authorized to fish for Pacific saury from the historical existing level.⁵
3. Members of the Commission participating in Pacific saury fisheries in areas under national jurisdiction adjacent to the Convention Area are, in accordance with relevant provisions of Article 3 of the Convention, requested to take compatible measures in paragraph 2.

[CATCH MANAGEMENT]

4. Members of the Commission agree, having regard to the advice of the Scientific Committee, that the catches of Pacific saury in 2020 in the entire area (the Convention Area and the areas under their jurisdiction adjacent to the Convention Area) should not exceed 556,250 metric tons⁶.
5. In 2020 the total allowable catch (TAC) of Pacific saury in the Convention Area shall be limited to 330,000 metric tons.
6. Members of the Commission shall consider allocation of the TAC in the Convention Area among

⁵ Paragraph 2 applies to Russia and Japan

⁶ 556,250 metric tons is estimated based on Table 1 of Executive Summary of TWG PSSA 04-Final Report; 2,225,000(2018 biomass) *0.25(Fmsy)



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Members at the Commission meeting in 2020.

7. As a provisional measure until the Commission decides allocation of the TAC, each Member of the Commission shall ensure that the total catch of Pacific saury by the fishing vessels entitled to fly its flag in 2020 will not exceed its reported catch in 2018 on the expectation that the total catch in the Convention Area will not exceed 330,000 metric tons.
8. To comply with the provisional measures above, Members of the Commission shall report to the Executive Secretary in the electronic format, weekly catches of Pacific saury in the Convention Area by fishing vessels flying their flags by Wednesday of the next week. The Executive Secretary shall make available the compiled catch of Pacific saury in the Convention Area on the Commission's website without delay.
9. Members fishing for Pacific saury in areas of their jurisdiction⁷ that are adjacent to the Convention Area may divert part of their catch limit for areas under their jurisdiction to their own catch of Pacific saury in the Convention Area by vessels entitled to fly their flags and authorized to fish for Pacific saury.
10. In 2020 and afterwards, the Commission shall review and revise, as appropriate, specific figures in paragraphs 4 and 5 based on the advice and recommendations from the SC.

[OTHER MEASURES]

11. Development of new fishing activity for the Pacific saury fishery in the Convention Area by Members without documented historical catch for Pacific saury in the Convention Area shall be determined in accordance with relevant provisions, as appropriate, including but not limited to Article 3, paragraph (h) and Article 7, subparagraphs 1(g) and (h) of the Convention.
12. Members of the Commission shall ensure that fishing vessels flying its flag operating in the Convention Area to fish Pacific saury be equipped with an operational vessel monitoring system that is activated at all times.
13. In order to prevent discards and contribute to the proper stock assessment, Members of the Commission shall take necessary measures to ensure that fishing vessels flying their flags in the Convention Area retain all the catch of Pacific saury on board.
14. In order to protect juvenile fish, Members of the Commission are encouraged to take measures for fishing vessels flying their flags to refrain from fishing for Pacific saury in the areas east of 170E from June to July. The SC and its subsidiary Small Scientific Committee on Pacific Saury will submit to the Commission relevant scientific information on geographical distribution of juvenile fish in the Convention Area, and its migration patterns.
15. The SC and its subsidiary SSC on Pacific Saury shall work to provide the Commission with a consensus stock assessment result and scientific guidance necessary for the development of harvest control rules for Pacific saury sufficient to prevent a declining trend of the stock.
16. This CMM shall in no case be a basis for any future CMM for Pacific saury.
17. This CMM replaces CMM 2018-08 and will be reviewed on a regular basis.

⁷ Paragraph 9 applies to Russia and Japan



**CONSERVATION AND MANAGEMENT MEASURE FOR
HIGH SEAS BOARDING AND INSPECTION PROCEDURES FOR THE
NORTH PACIFIC FISHERIES COMMISSION**

1. The following procedures are established by the North Pacific Fisheries Commission, in accordance with Article 7, paragraph 2-c of its Convention, to govern high seas boarding and inspection of fishing vessels in the Convention Area.

Definitions

2. For the purposes of interpreting and implementing these procedures, the following definitions shall apply:

- a. “Convention” means the Convention on the Conservation and Management of High Seas Fisheries resources in the North Pacific Ocean;
- b. “Commission” means the North Pacific Fisheries Commission (NPFC) established under Article 5 of the Convention;
- c. “Authorities of the Inspection Vessel” means the authorities of the Contracting Party under whose jurisdiction the inspection vessel is operating;
- d. “Authorities of the Fishing Vessel” means the authorities of the Member of the Commission under whose jurisdiction the fishing vessel is operating;
- e. “Authorized inspection vessel” means any vessel included in the Commission’s register of vessels as authorized to engage in boarding and inspection activities pursuant to these procedures;
- f. “Authorized inspector” means inspectors employed by the authorities responsible for boarding and inspection included in the Commission register and authorized to conduct boarding and inspection activities pursuant to these procedures;
- g. “Fishing activity” means the activities established under Article 1 (i) of the Convention;
- h. “Fishing vessels” means any vessel described under Article 1 (j) of the Convention.

PURPOSE

3. Boarding and inspection and related activities conducted pursuant to these procedures shall be for the purpose of ensuring compliance with the provisions of the Convention and conservation and management measures adopted by the Commission and in force.

AREA OF APPLICATION

4. These procedures shall apply throughout the Convention Area, which consists of the high seas areas of the North Pacific Ocean as specified in Article 4 of the Convention.

GENERAL RIGHTS AND OBLIGATIONS

5. Each Contracting Party may, subject to the provisions of these procedures, carry out boarding and inspection on the high seas of fishing vessels engaged in or reported to have engaged in a fishery regulated pursuant to the Convention.

6. These procedures shall also apply in their entirety as between a Contracting Party and a Fishing Entity, subject to a notification to that effect to the Commission from the parties concerned.



7. Each Member of the Commission shall ensure that vessels flying its flag accept boarding and inspection by authorized inspectors in accordance with these procedures. Such authorized inspectors shall comply with these procedures in the conduct of any such activities.

GENERAL PRINCIPLES

8. These procedures are intended to implement and give effect to, and are to be read consistently with, Article 7.2.c and Article 17.6 of the Convention.

9. These procedures shall be implemented in a transparent and non-discriminatory manner, taking into account, *inter alia*:

- a. such factors as the presence of observers on board a vessel and the frequency and results of past inspections; and
- b. the full range of measures to monitor compliance with the provisions of the Convention and agreed conservation and management measures, including inspection activities carried out by the authorities of Members of the Commission in respect of their own flag vessels.

10. While not limiting efforts to ensure compliance by all vessels, priority for boarding and inspection efforts pursuant to these procedures may be given to:

- a. fishing vessels that are not on the NPFC Record of Fishing Vessels and are flagged to Members of the Commission;
- b. fishing vessels reasonably believed to engage or to have been engaged in any activity in contravention of the Convention or any conservation and management measure adopted thereunder;
- c. fishing vessels that are entitled to fly the flag of a Member of the Commission that does not dispatch patrol vessels to the area of application to monitor its own fishing vessels;
- d. fishing vessels without observers on board if so required by the Convention, Article 7.2b;
- e. fishing vessels with a known history of violating conservation and management measures adopted by international agreement or any domestic laws and regulations.

11. The Commission shall keep the implementation of these procedures under review.

12. The interpretation of these procedures shall rest with the Commission.

PARTICIPATION

13. The Commission shall maintain a register of all authorized inspection vessels and authorities or inspectors. Only vessels and authorities or inspectors listed on the Commission's register are authorized under these procedures to board and inspect fishing vessels of Commission Members and Cooperating Non-Contracting Parties on the high seas within the Convention Area.

14. Each Contracting Party that intends to carry out boarding and inspection activities pursuant to these procedures shall so notify the Commission, through the Executive Secretary, and shall provide the following:

- a. with respect to each inspection vessel it assigns to boarding and inspection activities under these procedures:
 - i) details of the vessel (name, description, photograph, registration number, port of registry (and, if different from the port of registry, port marked on the vessel hull), international radio call sign and communication capability);
 - ii) An example of the credentials issued to the inspectors by its authorities;



- iii) notification that the inspection vessel is clearly marked and identifiable as being on government service;
 - iv) notification that the crew has received and completed training in carrying out boarding and inspection activities at sea in accordance with any standards and procedures as may be adopted by the Commission.
- b. with respect to inspectors it assigns pursuant to these procedures:
- i) the names of the authorities responsible for boarding and inspection;
 - ii) notification that such authorities' inspectors are fully familiar with the fishing activities to be inspected and the provisions of the Convention and conservation and management measures in force; and
 - iii) notification that such authorities' inspectors have received and completed training in carrying out boarding and inspection activities at sea in accordance with any standards and procedures as may be adopted by the Commission.

15. Where military vessels are used as a platform for the conduct of boarding and inspection, the authorities of the inspection vessel shall ensure that the boarding and inspection is carried out by inspectors fully trained in fisheries enforcement procedures and duly authorized for this purpose under national laws, and that boardings from such military vessels and inspectors conform to the procedures contained within these Boarding and Inspection Procedures.

16. Authorized inspection vessels and inspectors notified by Contracting Parties pursuant to paragraph 14 shall be included on the Commission register once the Executive Secretary confirms that they meet the requirements of that paragraph.

17. To enhance the effectiveness of the Commission's boarding and inspection procedures, and to maximize the use of trained inspectors, Contracting Parties may identify opportunities to place authorized inspectors on inspection vessels of another Contracting Party. Where appropriate, Contracting Parties should seek to conclude bilateral arrangements to this end or otherwise facilitate communication and coordination between them for the purpose of implementing these procedures.

18. The Executive Secretary shall ensure that the register of authorized inspection vessels and authorities or inspectors is at all times available to all Members of the Commission and shall immediately circulate any changes therein. Updated lists shall be posted on the Commission website. Each Member of the Commission shall take necessary measures to ensure that these lists are circulated in a timely manner to each of its fishing vessels operating in the Convention Area.

PROCEDURES

19. The Commission shall develop an NPFC inspection flag, which shall be flown by authorized inspection vessels, in clearly visible fashion.

20. Authorized inspectors shall carry an approved identity card identifying the inspector as authorized to carry out boarding and inspection procedures under the auspices of the Commission and in accordance with these procedures.

21. An authorized inspection vessel that intends to board and inspect a fishing vessel on the high seas that is engaged in or reported to have engaged in a fishery regulated pursuant to the Convention shall, prior to initiating the boarding and inspection:

- a. make best efforts to establish contact with the fishing vessel by radio, by the appropriate International Code of Signals or by other accepted means of alerting the vessel;



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- b. provide the information to identify itself as an authorized inspection vessel - name, registration number, international radio call sign and contact frequency;
- c. communicate to the master of the vessel its intention to board and inspect the vessel under the authority of the Commission and pursuant to these procedures; and
- d. initiate notice through the authorities of the inspection vessel of the boarding and inspection to the authorities of the fishing vessel.

22. In carrying out boarding and inspection pursuant to these procedures, the authorized inspection vessel and authorized inspectors shall make their best efforts to communicate with the master of the fishing vessels in a language that the master can understand. In order to facilitate communications between the inspectors and the master of the vessel, the Commission shall develop a standardized multi-language questionnaire, which shall be circulated to all Contracting Parties with authorized inspection vessels.

23. Authorized inspectors shall have the authority to inspect the vessel, its license, gear, equipment, records, facilities, fish and fish products and any relevant documents necessary to verify compliance with the conservation and management measures in force pursuant to the Convention.

24. Boarding and inspection pursuant to these procedures shall:

- a. be carried out in accordance with internationally accepted principles of good seamanship so as to avoid risks to the safety of fishing vessels and crews;
- b. be conducted as much as possible in a manner so as not to interfere unduly with the lawful operation of the fishing vessel;
- c. take reasonable care to avoid action that would adversely affect the quality of the catch; and
- d. not be conducted in such manner as to constitute harassment of a fishing vessel, its officers or crew.

25. In the conduct of a boarding and inspection, the authorized inspectors shall:

- a. present their identity card to the master of the vessel and a copy of the text of the relevant measures in force pursuant to the Convention in the relevant area of the high seas;
- b. not interfere with the master's ability to communicate with the authorities of the fishing vessel;
- c. complete the inspection of the vessel within 4 (four) hours unless evidence of a serious violation is found;
- d. collect and clearly document any evidence they believe indicates a violation of measures in force pursuant to the Convention;
- e. provide to the master prior to leaving the vessel a copy of an interim report on the boarding and inspection including any objection or statement which the master wishes to include in the report;
- f. promptly leave the vessel following completion of the inspection if they find no evidence of a serious violation; and
- g. provide a full report on the boarding and inspection to the authorities of the fishing vessel, pursuant to paragraph 31, which shall also include any master's statement.

26. During the conduct of a boarding and inspection, the master of the fishing vessel shall:

- a. follow internationally accepted principles of good seamanship so as to avoid risks to the safety of authorized inspection vessels and inspectors;
- b. accept and facilitate prompt and safe boarding by the authorized inspectors;
- c. cooperate with and assist in the inspection of the vessel pursuant to these procedures;



- d. not assault, resist, intimidate, interfere with, or unduly obstruct or delay the inspectors in the performance of their duties;
- e. allow the inspectors to communicate with the crew of the inspection vessel, the authorities of the inspection vessel, any embarked observers, as well as with the authorities of the fishing vessel being inspected;
- f. provide the inspectors onboard with reasonable facilities, including, where appropriate, food and accommodation; and
- g. facilitate safe disembarkation by the inspectors.

27. If the master of a fishing vessel refuses to allow an authorized inspector to carry out a boarding and inspection in accordance with these procedures, such master shall offer an explanation of the reason for such refusal. The authorities of the inspection vessel shall immediately notify the authorities of the fishing vessel, as well as the Commission, of the master's refusal and any explanation.

28. The authorities of the fishing vessel, unless generally accepted international regulations, procedures and practices relating to safety at sea make it necessary to delay the boarding and inspection, shall direct the master to accept the boarding and inspection. If the master does not comply with such direction, the Member shall suspend the vessel's authorization to fish and order the vessel to return immediately to port. The Member shall immediately notify the authorities of the inspection vessel and the Commission of the action it has taken in these circumstances.

USE OF FORCE

29. The use of force shall be prohibited except when and to the degree necessary to ensure the safety of the inspectors during the conduct of their boarding and inspection activities. The degree of force used shall not exceed that reasonably required in the circumstances.

30. Any incident involving the use of force shall be immediately reported to the authorities of the fishing vessel, as well as to the Executive Secretary for distribution to the Commission.

INSPECTION REPORTS

31. Authorized inspectors shall prepare a full report on each boarding and inspection they carry out pursuant to these procedures in accordance with a format specified by the Commission. The authorities of the inspection vessel from which the boarding and inspection was carried out shall transmit a copy of the boarding and inspection report to the authorities of the fishing vessel being inspected, as well as the Commission, within 3 (three) full working days of the completion of the boarding and inspection. Where it is not possible for the authorities of the inspection vessel to provide such report to the authorities of the fishing vessel within this timeframe, the authorities of the inspection vessel shall inform the authorities of the fishing vessel and shall specify the time period within which the report will be provided.

32. Such report shall include the names and authority of the inspectors and clearly identify any observed activity or condition that the authorized inspectors believe to be a violation of the Convention or conservation and management measures in force and indicate the nature of specific factual evidence of such violation.



SERIOUS VIOLATIONS

33. In the case of any boarding and inspection of a fishing vessel during which the authorized inspectors observe an activity or condition that would constitute a serious violation, as defined in paragraph 38, the authorities of the inspection vessels shall immediately notify the authorities of the fishing vessel, directly as well as through the Commission.

34. Upon receipt of a notification under paragraph 33, the authorities of the fishing vessels shall without delay:

- a. assume their obligation to investigate and, if the evidence warrants, take enforcement action against the fishing vessel in question and so notify the authorities of the inspection vessel, as well as the Commission; or
- b. authorize the authorities of the inspection vessel to complete investigation of the possible violation and so notify the Commission.

35. In the case of 34(a) above, the authorities of the inspection vessel shall provide, as soon as practicable, the specific evidence collected by the authorized inspectors to the authorities of the fishing vessel.

36. In the case of 34(b) above, the authorities of the inspection vessel shall provide the specific evidence collected by the authorized inspectors, along with the results of their investigation, to the authorities of the fishing vessel immediately upon completion of the investigation.

37. Upon receipt of a notification pursuant to paragraph 33, the authorities of the fishing vessel shall make best effort to respond without delay and in any case no later than within 3 (three) full working days.

38. For the purposes of these procedures, a serious violation means the following violations of the provisions of the Convention or conservation and management measures adopted by the Commission:

- a. fishing without a valid license, permit or authorization issued by the Member whose flag the fishing vessel is entitled to fly, in accordance with Article 13 of the Convention;
- b. significant failure to maintain records of catch and catch-related data in accordance with the Commission's reporting requirements or significant misreporting of such catch and/or catch-related data;
- c. fishing in a closed area;
- d. fishing during a closed season;
- e. intentional taking or retention of species in contravention of any applicable conservation and management measure adopted by the Commission;
- f. significant violation of catch limits or quotas in force pursuant to the Convention;
- g. using prohibited fishing gear;
- h. falsifying or intentionally concealing the markings, identity or registration of a fishing vessel;
- i. concealing, tampering with or disposing of evidence relating to investigation of a violation;
- j. multiple violations which taken together constitute a serious disregard of measures in force pursuant to the Commission;
- k. refusal to accept a boarding and inspection, other than as provided in paragraphs 27 and 28;
- l. assault, resist, intimidate, sexually harass, interfere with, or unduly obstruct or delay an authorized inspector; and
- m. intentionally tampering with or disabling the vessel monitoring system;



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- n. such other violations as may be determined by the Commission, once these are included and circulated in a revised version of these procedures.

ENFORCEMENT

39. Any evidence obtained as a result of a boarding and inspection pursuant to these procedures with respect to violation by a fishing vessel of the Convention or conservation and management measures adopted by the Commission and in force shall be referred to the authorities of the fishing vessel for action in accordance with Article 17 of the Convention.

40. For the purposes of these procedures, the authorities of the fishing vessels shall regard interference by their fishing vessels, captains or crew with an authorized inspector or an authorized inspection vessel in the same manner as any such interference occurring within its exclusive jurisdiction.

ANNUAL REPORTS

41. Contracting Parties that authorize inspection vessels to operate under these procedures shall report annually to the Commission on the boarding and inspections carried out by its authorized inspection vessels, as well as upon possible violations observed.

42. Contracting Parties shall include in their annual statement of compliance within their Annual Report to the Commission under Article 16 of the Convention action that they have taken in response to boarding and inspections of their fishing vessels that resulted in observation of alleged violations, including any proceedings instituted and sanctions applied.

OTHER PROVISIONS

43. Authorized inspection vessels, while carrying out activities to implement these procedures, shall engage in surveillance aimed at identifying fishing vessels of non-Members undertaking fishing activities on the high seas in the Convention area. Any such vessels identified shall be immediately reported to the Executive Secretary for distribution to the Commission.

44. The authorized inspection vessel shall attempt to inform any fishing vessel identified pursuant to paragraph 43 that has been sighted or identified as engaging in fishing activities that are undermining the effectiveness of Convention and that this information will be sent to the Executive Secretary for distribution to the Members of the Commission and the non-Member whose flag the fishing vessel is entitled to fly of the vessel in question.

45. If warranted, the authorized inspectors may request permission from the fishing vessel and/or the non-Member whose flag the vessel is entitled to fly to board a vessel identified pursuant to paragraph 43. If the vessel master or the vessel's non-Member whose flag the vessel is entitled to fly consents to a boarding, the findings of any subsequent inspection shall be transmitted to the Executive Secretary. The Executive Secretary shall distribute this information to all Commission Members as well as to the non-Member whose flag the vessel is entitled to fly.

46. Contracting Parties shall be liable for damage or loss attributable to their action in implementing these procedures when such action is unlawful or exceeds that reasonably required in the light of available information.



COMMISSION COORDINATION AND OVERSIGHT

47. Authorized inspection vessels in the same operational area should seek to establish regular contact for the purpose of sharing information on areas in which they are patrolling, on sightings and on boarding and inspections they have carried out, as well as other operational information relevant to carrying out their responsibilities under these procedures.

48. The Commission shall keep under continuous review the implementation and operation of these procedures, including review of annual reports relating to these procedures provided by Members. In applying these procedures, Contracting Parties may seek to promote optimum use of the authorized inspection vessels and authorized inspectors by:

- a. identifying priorities by area and/or by fishery for boarding and inspections pursuant to these procedures;
- b. ensuring that boarding and inspection on the high seas is fully integrated with the other monitoring, compliance and surveillance tools available pursuant to the Convention;
- c. ensuring non-discriminatory distribution of boarding and inspections on the high seas among fishing vessels of Members of the Commission without compromising the opportunity of Contracting Parties to investigate possible serious violations; and
- d. taking into account high seas enforcement resources assigned by Members of the Commission to monitor and ensure compliance by their own fishing vessels, particularly for small boat fisheries whose operations extend onto the high seas in areas adjacent to waters under their jurisdiction.

SETTLEMENT OF DISAGREEMENTS

49. In the event of a disagreement concerning the application or implementation of these procedures, the parties concerned shall consult in an attempt to resolve the disagreement.

50. If the disagreement remains unresolved following the consultations, the Executive Secretary of the Commission shall, at the request of the parties concerned, and with the consent of the Commission, refer the disagreement to the Technical and Compliance Committee (TCC). The TCC shall establish a panel of five representatives, acceptable to the parties to the disagreement, to consider the matter.

51. A report on the disagreement shall be drawn up by the panel and forwarded through the TCC Chair to the Executive Secretary for distribution to the Commission within two months of the TCC meeting at which the case is reviewed.

52. Upon receipt of such report, the Commission may provide appropriate advice with respect to any such disagreement for the consideration of the Members concerned.

53. Application of these provisions for the settlement of disagreements shall be non-binding. These provisions shall not prejudice the rights of any Member to use the dispute settlement procedures provided in the Convention.



**CONSERVATION AND MANAGEMENT MEASURE
FOR SABLEFISH IN THE NORTHEASTERN PACIFIC OCEAN**

The North Pacific Fisheries Commission (NPFC),

Recalling relevant international law as reflected in the United Nations Convention on the Law of the Sea of 10 December 1982, the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 4 December 1995 and the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas of 24 November 1993 and taking into account the Code of Conduct for Responsible Fisheries adopted by the Conference of the Food and Agriculture Organization of the United Nations (“FAO”) at its 28th session on 31 October 1995 as well as the International Guidelines for the Management of Deep-Sea Fisheries in the High Seas adopted by FAO on 29 August 2008;

Seeking to ensure the long term conservation and sustainable use of the fishery resources of the Northeastern 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;

Reaffirming the General Principles, Article 3 of the Convention, in particular, paragraph (b) stipulating that measures are adopted, based on the best scientific information available, to ensure that fisheries resources are maintained at or restored to levels capable of producing maximum sustainable yield, and paragraph (f) stipulating that preventing or eliminating overfishing and excess fishing capacity and ensuring that levels of fishing effort or harvest levels are based on the best scientific information available and do not exceed those commensurate with the sustainable use of the fisheries resources;

Noting that the existing high seas seamount Sablefish fishery is being conducted by Canada following a precautionary approach with set effort controls in accordance with the conservation and management measure (CMM) 2019-06 for Bottom Fisheries and Protection of Vulnerable Marine Ecosystems in the Northeastern Pacific Ocean;

Reaffirming the General Principles provided in Article 3 of the Convention, in particular, paragraph (h) stipulating that any expansion of fishing effort does not proceed without prior assessment of the impacts of those fishing activities on the long-term sustainability of fisheries resources and a determination that those activities would not have significant adverse impacts (SAI) on vulnerable marine ecosystems (VME), or ensuring that those activities are managed to prevent those impacts or are not authorized to proceed;

Conscious of the need to adopt permanent measures for the Northeastern 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;

Recognizing that the scope of management measures outlined in CMM 2019-06 applies to the



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management of bottom fisheries in the Northeastern Pacific Ocean;

Recognizing the documented historical catch in NPFC Annual Reports of Sablefish in the Northeastern Pacific Ocean by Canada, managed in accordance with CMM 2019-06 and compatible domestic management measures;

Recognizing the need expressed in CMM 2019-06 to develop and implement other permanent management arrangements to govern these and other fisheries in the Northeastern Pacific Ocean;

Recognizing that the Commission is to strive to adopt conservation and management measures to prevent SAI on marine species or any VME;

Recognizing the detrimental impacts of lost, abandoned and otherwise discarded fishing gear on the conservation and sustainable use of fisheries and the ecosystems they depend on, and the need for global action to address this issue;

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

1. This CMM shall apply to the eastern part of the Convention Area as defined in CMM 2019-06.
2. Members of the Commission with current harvest of sablefish in the eastern part of the Convention Area shall refrain from expansion of their fishery in this area from the existing historical level.
3. Members with historical but no current harvest of sablefish in the eastern part of the Convention Area may only expand their fishery in this area in the context of the relevant NPFC Convention provisions, as appropriate including but not limited to Article 3, paragraph (h).
4. Development of new fishing activity for the sablefish fishery in the eastern part of the Convention Area by Members not referenced in paragraph 5 without documented historical catch for sablefish in this area shall be determined in accordance with, but not limited to, as appropriate, Article 3, paragraph (h) and Article 7, subparagraphs 1(g) and (h) of the Convention.
5. Members referenced in paragraph 2 and Members fishing for Sablefish in areas of their jurisdiction that are adjacent to the eastern part of the Convention Area shall adhere to the exploratory fishing protocol as set out in Annex 1 of CMM 2019-06 for Bottom Fisheries and Protection of Vulnerable Marine Ecosystems in the Northeastern Pacific Ocean when considering new and exploratory bottom fishing activities in the Convention Area.

Fishing Gear

6. Longline gear and longline trap gear are permitted to be used.
7. Members of the Commission shall ensure that fishing vessels flying their flag operating in the eastern part of the Convention Area to fish sablefish are to be equipped with an operational vessel monitoring system that is activated at all times.
8. All vessels authorized to fish sablefish in the eastern part of the Convention Area shall have 100% observer coverage.



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9. Recognizing ongoing processes to address marine pollution in other fora, including at the International Maritime Organization, Members are encouraged to report lost fishing gear as soon as possible to the Secretariat, and retrieve any lost gear encountered by their vessels if safety is not compromised.
10. Proposed fishing activities involving the use of trawl fishing gear or other gear types not in use at the time of the adoption of this CMM in the eastern part of the Convention Area will be subject to the requirements of the Convention and relevant CMMs, as appropriate, including for new and exploratory fishery protocol in the Northeastern Pacific Ocean as per CMM 2019-06.
11. This CMM shall not be a precedent to hinder Members referenced in paragraph 2, at the time of the adoption of this CMM, to develop new or exploratory Sablefish fisheries in the eastern part of the Convention Area subject to the requirements of CMM on Bottom Fisheries and Protection of Vulnerable Marine Ecosystems in the Northeastern Pacific Ocean.



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**CONSERVATION AND MANAGEMENT MEASURE FOR JAPANESE SARDINE AND
JAPANESE FLYING SQUID**

The North Pacific Fisheries Commission (NPFC),

Recalling that six pelagic species – Pacific saury, Chub mackerel, Spotted mackerel, Japanese sardine, Neon flying squid, and Japanese flying squid – are identified as priority species;

Also recalling that the NPFC has adopted the CCMs on two species - Pacific saury and Chub mackerel;

Noting that specific measures for the remaining four species have yet to be introduced while those species have been subject to extensive fishing practices, whether they are target or bycatch species.

Reaffirming the General Principles provided in Article 3 of the Convention, in particular, Paragraph (h) stipulating that any expansion of fishing effort does not proceed without prior assessment of the impacts of those fishing activities on the long-term sustainability of fisheries resources;

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 (CNCs) with substantial harvest of any of Japanese sardine and Japanese flying squid (hereinafter referred to as “the two Pelagic Species”) in the Convention Area shall refrain from expansion, in the Convention Area, of the number of fishing vessels entitled to fly their flags and authorized to fish for such species from the historical existing level until the stock assessment for such species by the SC has been completed.
2. Members of the Commission and CNCs without substantial harvest of the two Pelagic Species in the Convention Area 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 such species from the historical existing level until the stock assessment for such species by the SC has been completed.
3. Members of the Commission participating in fishing for the two Pelagic Species in areas under their jurisdiction adjacent to the Convention Area are requested to take compatible measures in paragraph 1. Such Members⁸ may divert part of their catch limit for areas under their jurisdiction to their own catch of the species in the Convention Area by vessels entitled to fly their flags and authorized to fish for the species, provided that: (i) the Member has established a catch limit for the species in its jurisdiction; (ii) the Member has notified the Commission of the catch limit; and (iii) the total catch of the species in the Convention Area and the areas under their jurisdiction adjacent to the Convention Area will not exceed the Member’s total catch limit for its jurisdiction respectively.

⁸ Paragraph 3 applies to Russia and Japan.

4. Development of new fishing activity for the two Pelagic Species in the Convention Area by Members of the Commission without documented historical catch for such species in the Convention Area shall be determined in accordance with relevant provisions, as appropriate, including but not limited to Article 3, paragraph (h) and Article 7, subparagraphs 1(g) and (h) of the Convention.
5. Members of the Commission and CNCPs shall ensure that fishing vessels flying their flag operating in the Convention Area authorized to fish the two Pelagic Species are to be equipped with an operational vessel monitoring system that is activated at all times.
6. Members of the Commission and CNCPs shall provide their data on the two Pelagic Species in accordance with the data requirements adopted by the Commission in the Annual Report by the end of February, every year. The Commission shall review such information at the annual meeting of every year.
7. Members of the Commission and CNCPs shall cooperate to take necessary measures including sharing information, in order to accurately understand the situation and eliminate IUU fishing for the two Pelagic Species.
8. After a stock assessment for any of the two Pelagic Species has been completed, the provisions in Paragraph 1 shall be reviewed by the Commission and those provisions shall not be a precedent to hinder those Members who are not harvesting substantial amounts of the two Pelagic Species assessed in the Convention Area to develop their own fisheries in the Convention Area noting the Commission shall regularly review the harvests of such species in the Convention Area by all Members.
9. 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.

CONSERVATION AND MANAGEMENT MEASURE ON THE VESSEL MONITORING SYSTEM (VMS)

The North Pacific Fisheries Commission (NPFC),

Recalling Article 2 of the Convention on the Conservation and Management of High Seas Fisheries resources in the North Pacific Ocean (Convention), 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

Recognizing Article 7, paragraph 2 (e) of the Convention regarding the development of standards, specifications and procedures for Members of the Commission to report movements and activities using real-time satellite position-fixing transmitters for vessels engaged in fishing activities in the Convention Area and, in accordance with those procedures, coordinate timely dissemination of data collected from Members' satellite vessel monitoring systems,

Reaffirming that Article 13, paragraph 1 of the Convention that Members of the Commission or Cooperating Non-Contracting Parties (CNCs) shall take necessary measures to ensure that fishing vessels entitled to fly their 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,

Determined to ensure effective monitoring, control and surveillance (MCS) and to address the challenge of illegal, unreported and unregulated (IUU) fishing in the Convention Area,

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

Definitions

1. For the purpose of this CMM, the following definitions apply:
 - (a) "Convention" means the Convention on the Conservation and Management of High Seas Fisheries resources in the North Pacific Ocean.
 - (b) "Convention Area" means the area of the high seas areas of the North Pacific Ocean as specified in Article 4 of the Convention.
 - (c) "Commission" means the North Pacific Fisheries Commission (NPFC) established under Article 5 of the Convention.
 - (b) "Fishing activities" means the activities established under Article 1 (i) of the Convention.
 - (e) "Fisheries monitoring center (FMC)" means the authorized authority or agency of a Member, CNCP or Relevant non-Member, responsible for managing VMS for its flagged fishing vessels.
 - (f) "Fishing vessels" means any vessel described under Article 1 (j) of the Convention.
 - (g) "Inspection Presence in the Convention Area" means the Member is authorized by the High Seas Boarding Inspection Procedure to conduct inspections and is planning for or actively engaged in surveillance in the Convention Area.
 - (h) "Manually report" means the transmission via any alternative means of the date/time,

current geographical position (latitude and longitude) course and speed when an MTU fails to transmit VMS data.

- (i) “Mobile transmitting unit (MTU)” means a satellite communication device capable of receiving and transmitting VMS data.
- (j) “VMS” means a satellite-based monitoring system that transmits VMS data from MTUs on fishing vessels to FMCs.
- (k) “VMS data” means data transmitted by an MTU including:
 - (i) MTU unique identifier;
 - (ii) the current geographical position (latitude and longitude) of the vessel (accurate to within 100m); and,
 - (iii) the date and time (expressed in Coordinated Universal Time (UTC)) of the fixing of the position of the vessel in paragraph 1(k)(ii).

Purpose

2. The VMS supports the Convention’s objective to ensure the long-term conservation and sustainable use of the fisheries resources in the Convention Area. The VMS forms an important part of the Commission’s MCS regime to ensure compliance with, and enforcement of, the provisions of the Convention and CMMs. The purpose of the VMS is to continuously monitor the positions and movements of all fishing vessels in the Convention Area for compliance purposes. VMS data may also be used to support scientific processes as agreed by the Commission.

Application

3. The VMS applies to all authorized NPFC vessels in the Convention Area.
4. A Member, CNCP or Relevant non-Member may request that waters under their jurisdiction be also covered by the VMS. This request shall be provided to the Commission for their consideration and approval.

Mobile transmitting units (MTUs)

5. Each Member, CNCP and Relevant non-Member shall ensure that its vessels authorized pursuant to the relevant CMM for Vessel Registration under NPFC in the Convention Area are equipped with an MTU that complies with the guidance on minimum standards for MTUs contained in Annex I.
6. Each Member, CNCP and Relevant non-Member shall ensure that MTUs are installed on their flagged fishing vessels.

VMS data transmission requirements

7. Each Member, CNCP and Relevant non-Member shall ensure its authorized NPFC vessels provide accurate VMS data to the Secretariat via its FMC, in accordance with this CMM.
8. All Members, CNCP and Relevant non-Members shall ensure that its flagged vessels that are authorized under NPFC and present in the Convention Area transmit VMS data every hour to their FMC.
9. Where domestic legislation prevents compliance with paragraph 8 above, a Member, CNCP or Relevant non-Member’s flagged vessel may transmit its position no longer than every four hours. This provision shall expire in July 31, 2020.

10. A Member, a CNCP or Relevant non-Member may require its fishing vessels to transmit VMS data directly to the Secretariat.
11. Each Member, CNCP and Relevant non-Member shall ensure that their FMC automatically transmits VMS data to the Secretariat, which shall be received no later than 60 minutes upon receipt of the data at their FMC.

Fisheries monitoring centers (FMCs)

12. Each Member, CNCP and Relevant non-Member shall ensure that their FMC can automatically receive VMS data and transmit VMS data to the Secretariat.
13. Each Member, CNCP and Relevant non-Member shall provide the Secretariat with VMS contact points in their FMCs including the name, position, email address and phone number of their VMS contact points. The Secretariat will make a list of VMS contact points available to all Members and Cooperating non-Contracting Parties.

Data access and use

14. All VMS data received by the Secretariat shall be treated as confidential information in accordance with NPFC's Data-Sharing and Data-Security Protocols for Vessel Monitoring System (VMS) Data.
15. Subject to the development of appropriate procedures by April 1, 2020 the Secretariat shall provide VMS data:
 - (a) By electronic means to a Member who has an inspection presence in the Convention Area;
or
 - (b) upon request from a Member to support search and rescue (SAR)

Data sharing and Security

16. Subject to NPFC's Data-Sharing and Data-Security Protocols for Vessel Monitoring System (VMS) Data, VMS data shall only be accessed and used for the purposes included in this measure or for any other purposes as agreed by the Commission.

VMS data transmission failure

17. In the event that an MTU has failed to transmit VMS data for four hours, the flag Member or CNCP shall require the fishing vessel master to manually report every four hours to the FMC or the Secretariat by other means of communication.
18. A Member, CNCP or Relevant non-Member may also require its fishing vessels to manually report directly to the Secretariat.
19. The flag Member or CNCP shall require an MTU that fails to transmit VMS data in accordance with this measure, be repaired or replaced as soon as possible and, in any event, within thirty (30) days of the VMS data transmission failure.
20. Where domestic legislation prevents compliance with paragraph 19 above, a Member, CNCP or Relevant non-Member shall require an MTU that fails to transmit VMS data in accordance with this measure, be repaired within 60 days. This provision shall expire July 31, 2020.

21. If the fishing vessel returns to port following an MTU VMS data transmission failure, the Member, CNCP or Relevant non-Member shall not permit the vessel to undertake fishing in the Convention Area until the MTU has been replaced in accordance with the guidance in Annex I or is repaired and is able to transmit VMS data.
22. If a Member or CNCP or Relevant non-Member finds that an MTU has failed to transmit VMS data for twelve hours, the Member or CNCP or Relevant non-Member shall immediately notify the fishing vessel master, owner or authorized representative of this failure. If a failure to transmit occurs more than two times within a period of one year, the flag Member or CNCP or Relevant non-Member of the fishing vessel shall investigate the matter, including having an authorized official examine the MTU on board the vessel. The outcome of this investigation shall be forwarded to the Secretariat within fifteen (15) days of its completion.

Review

23. The Secretariat shall report on the implementation of this measure annually to the Technical and Compliance Committee (TCC). The TCC shall review the implementation of the VMS after two years and make recommendations to the Commission as may be necessary.

Guidance on minimum standards for mobile transmitting units (MTUs)

1. The mobile transmitting unit (MTU) shall automatically and independently of any intervention by the fishing vessel, transmit VMS data as required by NPFC.
2. The VMS data shall be obtained from a satellite-based positioning system.
3. MTUs on fishing vessels must be capable of transmitting VMS data at least every fifteen minutes.
4. MTUs on fishing vessels must be tamper-proof so as to preserve the security and integrity of VMS data.
5. Storage of VMS data and other relevant information within the MTU must be safe, secure and integrated within a single unit under normal operating conditions.
6. It must not be reasonably possible for anyone, other than the Fisheries Monitoring Centre (FMC), to alter any of the VMS data stored in an MTU, including the frequency of position VMS data transmission to the FMC.
7. Any features built into the MTU or its software to assist with servicing shall not allow unauthorized access to the MTU that could potentially compromise the operation of the VMS.
8. MTUs shall be installed on fishing vessels by an authorized installer in accordance with the manufacturer's specifications and applicable standards and in accordance with a flag State's relevant domestic legal obligations, procedures and conditions.
9. Under normal satellite navigation operating conditions, VMS data must include the geographical location of a fishing vessel within an accuracy of 100 metres.
10. The MTU and/or the VMS service provider must be able send VMS data to multiple independent destinations.
11. The MTU and its component parts shall be fully integrated and housed in the same tamper-proof physical enclosure.
12. The MTU must have:
 - (a) all components sealed by the manufacturer; or
 - (b) official seals⁹, individually identified with unique serial numbers, applied.
13. Relevant domestic legal obligations, procedures and conditions for MTU installation on fishing vessels should be forwarded by members, cooperating non-Contracting Parties and Relevant non-Members to the Secretariat or made available upon request.
14. The MTU must have an alternate power unit, to act as a backup in case of failure of the main power, to enable the MTU to continue to meet the VMS data transmission requirements of this CMM.
15. The MTU should include audible or visible alarms to indicate a unit malfunction.

⁹ Official seals or other mechanisms must be of such a type to indicate whether the MTU has been accessed or tampered with.

**CONSERVATION AND MANAGEMENT MEASURE FOR
THE COMPLIANCE MONITORING SCHEME**

The North Pacific Fisheries Commission (NPFC),

Acknowledging the importance of compliance by Members and Cooperating Non-Contracting Parties to achieve the objective of the Convention as defined in Article 2;

Recognizing that Article 7 of the Convention calls for the Commission to establish procedures for reviewing compliance with the Convention and measures adopted pursuant to the Convention;

Recalling that the Commission has adopted a wide range of conservation and management measures to give effect to the objective of the Convention;

Noting that, in accordance with Article 17 of the Convention, Members of the Commission have undertaken to enforce the provisions of the Convention and any conservation and management measures adopted by the Commission;

Noting also that, in accordance with international law, Members and Cooperating Non-Contracting Parties have responsibilities to effectively exercise jurisdiction and control over their flagged vessels and with respect to their nationals;

Acknowledging that Article 13 of the Convention obliges Members of the Commission to take the necessary measures to ensure that fishing vessels flying their flag comply with the provisions of the Convention and the conservation and management measures adopted pursuant thereto;

Recognizing the responsibility of Members and Cooperating Non-Contracting Parties to fully and effectively implement the provisions of the Convention and the conservation and management measures adopted by the Commission, and the need to improve such implementation and ensure compliance with these commitments;

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

I. Purpose

1. The purpose of the NPFC Compliance Monitoring Scheme (CMS) is to ensure that Members and Cooperating Non-Contracting Parties (CNCs) implement and comply with obligations under the Convention and conservation and management measures (CMMs) adopted by the Commission. The purpose of the CMS is also to assess Members' and CNCs' actions in relation to alleged violations by their flagged vessels or nationals, not to assess compliance by individual vessels or persons.
2. The CMS is designed to:
 - a. Identify non-compliance by Members and CNCs with their obligations under the Convention and CMMs;
 - b. Identify areas in which technical assistance or capacity building may be needed to assist

- Members or CNCPs to attain compliance;
- c. Identify trends in compliance, including aspects of CMMs which may require amendment for effective implementation;
 - d. Determine responses to non-compliance by Members or CNCPs; and,
 - e. Monitor and verify corrective actions taken by a Member or CNCP to resolve outstanding instances of non-compliance.

II. Scope and Application

3. The Commission, with the assistance of the Technical and Compliance Committee (TCC), shall assess Members' and CNCPs' compliance with the obligations arising under the Convention and the CMMs adopted by the Commission and identify trends in and instances of non-compliance.
4. For obligations relating to fishing activities, unless otherwise specified in the relevant CMM, the compliance assessment shall apply to those activities occurring in the Convention area.
5. The CMS shall not prejudice the rights, jurisdiction and duties of any Member or CNCP to enforce its domestic laws or to take more stringent measures in accordance with its domestic laws, consistent with that Member's or CNCP's international obligations.
6. The compliance assessment period shall be the previous calendar year.
7. The Commission, with the assistance of TCC, shall determine responses to non-compliance in accordance with Annex I.

III. Draft Compliance Report

8. Prior to TCC, the Secretariat shall compile information received from Members and CNCPs including through their Annual Reports, any data collections of the Commission (e.g., reports from observers, Vessel Monitoring Systems, High Seas Boarding and Inspections, high seas transshipments), and, where appropriate, any other relevant information relating to the performance of NPFC CMMs available to the Secretariat, and shall prepare a Draft Compliance Report. The Draft Compliance Report shall:
 - a. Present all available information relating to each Member's or CNCP's implementation of each obligation arising from the Convention or CMMs;
 - b. Report on any compliance issues that were identified from the previous year's Final Compliance Report (i.e., Resolved Non-Compliance, Non-Compliant, or Flag State Investigation) and any corrective actions reported by the Member or CNCP; and,
 - c. Identify the potential areas of non-compliance for each Member and CNCP and, as appropriate, request any follow-up information relating to the previous year's compliance issues.
9. No later than 60 days before the TCC meeting, the Secretariat shall provide each Member and CNCP its section of the Draft Compliance Report.
10. No later than 35 days before the TCC meeting, each Member and CNCP shall provide additional information on its section of the Draft Compliance Report to the Secretariat. This information shall, as appropriate:
 - a. Provide information, clarifications, amendments, or corrections necessary to address the potential compliance issues identified or respond to any request for additional

information;

- b. Propose future corrective actions to be taken, along with time frames, to come into compliance;
- c. Identify any causes of the potential compliance issues or mitigating circumstances; and,
- d. Identify any technical assistance or capacity building needed.

11. The Secretariat shall compile a revised Draft Compliance Report containing all information provided pursuant to paragraph 10 above.

12. No later than 15 days before TCC, the Secretariat shall circulate the revised Draft Compliance Report to Members and CNCPs and make it available on the non-public section of the Commission website. For instances of non-compliance identified in Annex II as having an associated automatic response, the Secretariat shall automatically assign the appropriate status and response. Members and CNCPs may request review of automatically assigned statuses and responses when the Draft Compliance Report is considered by TCC.

IV. Provisional Compliance Report

13. TCC shall consider the Draft Compliance Report and any additional, readily verifiable information provided by Members, CNCPs, and the Commission, and, where appropriate, by non-governmental organizations or other organizations concerned with matters relevant to the implementation of the Convention.

14. TCC shall develop a Provisional Compliance Report, which shall include a compliance assessment for each Member or CNCP obligation and identify response(s) to non-compliance, in accordance with Annex I. For an issue of non-compliance assigned an automatic response in accordance Annex II, TCC may consider additional responses as warranted, consistent with Annex I.

15. Each compliance assessment shall be decided by consensus. If consensus cannot be reached, the Provisional Compliance Report shall indicate majority and minority views. A Member or CNCP may not block agreement on its own compliance assessment.

16. The Provisional Compliance Report shall also include an Executive Summary with recommendations regarding, as appropriate:

- a. Proposals to address compliance trends, and amend or improve existing CMMs;
- b. Identified obstacles to implementation, including recommendations for capacity building assistance; and,
- c. Revisions to the obligations to be assessed identified in Annex II.

17. TCC shall forward the Provisional Compliance Report to the Commission for consideration at the annual meeting.

V. Final Compliance Report

18. The Commission shall consider the Provisional Compliance Report recommended by TCC and adopt a Final Compliance Report.

19. The Final Compliance Report shall include:

- a. A final compliance status for each Member and CNCP against each assessed obligation;
- b. All responses to be taken to address instances of non-compliance; and,

c. An Executive Summary addressing the issues listed in paragraph 16.

20. Within 30 days following the adoption of the Final Compliance Report, the Chair of the Commission shall send a Letter of Concern to each Member or CNCP assessed a status of Non-Compliant. Such letters shall describe the relevant compliance issue(s) and the required response(s) identified in the Final Compliance Report.

VI. Data Protection

21. The Draft and Provisional Compliance Reports, and all associated documentation, shall constitute non-public domain data, but the Final Compliance Report and the executive summary shall be public domain data.

VII. Identification of Compliance Measures to be Assessed

22. Annex II includes the list of obligations to be assessed as part of the CMS. Annex II will be reviewed annually and may be amended, as appropriate, taking into account factors such as:

- a. The needs and priorities of the Commission;
- b. Evidence of high percentages of non-compliance or repeated non-compliance with a particular obligation;
- c. The risks posed by non-compliance to achievement of the objectives of the Convention; and,
- d. Whether sufficient verifiable information is available to determine compliance.

VIII. Review of this Conservation Measure

23. This conservation and management measure shall expire three years after its entry into force.

24. Prior to expiration, the Commission should consider adopting a lasting compliance monitoring scheme.

ANNEXES

- Annex I – Compliance Status Table
- Annex II – Obligations to be Assessed

Compliance Status Table

Compliance Status	Criteria	Potential Responses
Compliant	Member or CNCP fully compliant with obligation	None
Delayed Submission	Member or CNCP rectified non-compliance for a missed report deadline in advance of TCC and it is not a repeated case of non-compliance	Member or CNCP to include in its Annual Report all actions taken
Non-Compliant	Non-compliance with obligation identified in Annex II that does not meet the criteria of Delayed Submission or Flag State Investigation	<ol style="list-style-type: none"> 1) Member or CNCP to rectify non-compliance and include in its Annual Report all actions taken, 2) Application of automatic response, as applicable (Annex II), and 3) Consideration of further responses.
Not Assessed	Ambiguity of relevant obligation	Review and potentially amend relevant provision(s)
Flag State Investigation	Currently undergoing investigation	<ol style="list-style-type: none"> 1) Review by TCC and Commission and deadline(s) placed on Member or CNCP to provide further information to the Secretariat and/or take action(s), and 2) Member or CNCP to report progress in its Annual Report

Obligations to be Assessed

Obligation to be Assessed	Automatic response for inclusion in the Draft Compliance Report
CMM 2019-05 Bottom Fisheries and VMEs in the NW Pacific	
CMM 2019-05 08	No automatic response has been assigned at this time.
CMM 2019-08 Pacific Saury	
CMM 2019-08 01	No automatic response has been assigned at this time.
CMM 2019-08 02	No automatic response has been assigned at this time.

APPENDIX I
HISTORY OF ALL CONSERVATION AND MANAGEMENT MEASURES
ADOPTED BY THE COMMISSION, 2015 TO 2019

Conservation Management Measure	Conservation and Management Measure	Status	Superseded by
2018			
CMM 2019-01	CMM ON INFORMATION REQUIREMENTS FOR VESSEL REGISTRATION	ACTIVE	
CMM 2019-02	CMM TO ESTABLISH A LIST OF VESSELS PRESUMED TO HAVE CARRIED OUT IUU FISHING ACTIVITIES IN THE CONVENTION AREA	ACTIVE	
CMM 2016-03	CMM ON THE INTERIM TRANSHIPMENT PROCEDURES FOR THE NORTH PACIFIC FISHERIES COMMISSION (NPFC)	ACTIVE	
CMM 2016-04	CMM ON VESSELS WITHOUT NATIONALITY	ACTIVE	
CMM 2019-05	CMM ON BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH WEST PACIFIC OCEAN	ACTIVE	
CMM 2019-06	CMM FOR BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH EAST PACIFIC OCEAN	ACTIVE	
CMM 2019-07	CMM FOR CHUB MACKEREL	ACTIVE	
CMM 2019-08	CMM FOR PACIFIC SAURY	ACTIVE	
CMM 2017-09	CMM FOR HIGH SEAS BOARDING AND INSPECTION PROCEDURES FOR THE NORTH PACIFIC FISHERIES COMMISSION (NPFC)	ACTIVE	
CMM 2019-10	CMM FOR SABLEFISH IN THE NORTHEASTERN PACIFIC OCEAN	ACTIVE	
CMM 2019-11	CMM FOR JAPANESE SARDINE AND JAPANESE FLYING SQUID	ACTIVE	

CMM 2019-12	CMM ON VESSEL MONITORING SYSTEM	ACTIVE	
CMM 2019-13	CMM FOR THE COMPLIANCE MONITORING SCHEME	ACTIVE	

Superseded CMMs			
2018 (in 2019 meeting)			
CMM 2018-01	CMM ON INFORMATION REQUIREMENTS FOR VESSEL REGISTRATION	Superseded	CMM 2019-01 (29 November 2019)
CMM 2017-02	CMM TO ESTABLISH A LIST OF VESSELS PRESUMED TO HAVE CARRIED OUT IUU FISHING ACTIVITIES IN THE CONVENTION AREA	Superseded	CMM 2019-02 (29 November 2019)
CMM 2018-05	CMM ON BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH WEST PACIFIC OCEAN	Superseded	CMM 2019-05 (29 November 2019)
CMM 2017-06	CMM FOR BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH EAST PACIFIC OCEAN	Superseded	CMM 2019-06 (29 November 2019)
CMM 2018-07	CMM FOR CHUB MACKEREL	Superseded	CMM 2019-07 (29 November 2019)
CMM 2018-08	CMM FOR PACIFIC SAURY	Superseded	CMM 2019-08 (29 November 2019)
2017 (in 2018 meeting)			
CMM 2016-01	CMM ON INFORMATION REQUIREMENTS FOR VESSEL REGISTRATION	Superseded	CMM 2018-01 (17 November 2018)
CMM 2017-05	CMM ON BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH WEST PACIFIC OCEAN	Superseded	CMM 2018-05 (17 November 2018)
CMM 2017-07	CMM FOR CHUB MACKEREL	Superseded	CMM 2018-07 (17 November 2018)
CMM 2017-08	CMM FOR PACIFIC SAURY	Superseded	CMM 2018-08 (17 November 2018)

2016 (in 2017 meeting)			
CMM 15-02	CMM FOR PACIFIC SAURY	Superseded	CMM 2017-08 (28 November 2017)
CMM 2016-02	CMM TO ESTABLISH A LIST OF VESSELS PRESUMED TO HAVE CARRIED OUT IUU FISHING ACTIVITIES IN THE CONVENTION AREA	Superseded	CMM 2017-02 (28 November 2017)
CMM 2016-05	CMM ON BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH WEST PACIFIC OCEAN	Superseded	CMM 2017-05 (28 November 2017)
CMM 2016-06	CMM FOR BOTTOM FISHERIES AND PROTECTION OF VMEs IN THE NORTH EAST PACIFIC OCEAN	Superseded	CMM 2017-06 (28 November 2017)
CMM 2016-07	CMM FOR CHUB MACKEREL	Superseded	CMM 2017-07 (28 November 2017)
2015 (in 2016 meeting)			
CMM 15-01	CMM ON INFORMATION REQUIREMENTS FOR VESSEL REGISTRATION	Superseded	CMM 2016-01 (16 January 2017)