(NWPBT/03/Inf4)

Third Inter-governmental Meeting on Establishment of New Mechanism for Management of High Seas Bottom Fisheries in the North Western Pacific Ocean

Honolulu, Hawaii, United States of America
22-23 October 2007

Report of the Second Meeting of the Scientific Working Group

1 Opening

William Gibbons-Fly from the United States opened the second meeting of the Scientific Working Group at 9:30 am on Monday 22 October 2007 and welcomed all participants. Participants from Japan, the Republic of Korea, the Russian Federation and the United States of America attended the meeting (Attachment 1).

2 Appointment of Facilitator and Rapporteur

Dr. Samuel Pooley from the United States was elected to facilitate the second Meeting of the Scientific Working Group, and Elizabethann English from the United States agreed to serve as rapporteur.

3 Adoption of Agenda

The agenda was reviewed and adopted (Attachment 2).

4 Review of scientific information from the recent relevant meetings of FAO

The Interim Secretariat provided an overview of relevant processes at the United Nation's Food and Agriculture Organization, including a review of the Experts Consultation on International Guidelines of the Management of Deep-sea fisheries in the High Seas (NWPBT/03/SWG-01) and noted that the FAO will host a technical meeting to discuss these guidelines in Rome, February 2008. Participants expressed their appreciation for receipt of the draft guidelines and their intention to review both the guidelines and their applicability in the North Pacific. (NWPBT/03/SWG-01)

The Interim Secretariat also informed participants that the FAO will host an expert

Workshop on Knowledge and Data on Deep-Sea Fisheries in the High Seas in Rome, November 5-7, 2007.

5 Review of outcome of the First Meeting of the Scientific Working Group (NWPBT/02/Inf4)

A) Terms of reference

The Scientific Working Group (SWG) reviewed the Terms of Reference (TOR). Participants agreed that the current TOR were developed for the initial scope of work of the SWG and that the TOR may subsequently need to be updated to reflect the ongoing work of the SWG.

B) Draft Elements of Work Plan for the SWG

i. Data inventory

The Scientific Working Group reviewed and approved the draft inventory provided by the Russian and Japanese delegations in Excel workbook format. Participants agreed to distribute, fill-out and exchange the inventory among national representative scientists, where possible, by the end of 2007. Some delegations noted the submission of commercial data may require an additional 4 months after 2007 deadline. The Working Group requested that participants provide components of the data inventory as they are completed. (NWPBT/03/SWG-02)

ii. Key species and habitats of concern

The Scientific Working Group noted that while key target species (armorhead (Pseudopentaceros wheeleri) and alfonsino (Beryx splendens),), and associated and dependent species have been identified, their prey and habitats of concern have not. Participants reviewed and agreed to use existing templates from the South Pacific Regional Fisheries Management Organization for the collection of this information (NWPBT/03/SWG-03, 04, 05)

iii. Data handling/sharing protocol

The Scientific Working Group discussed, reviewed and revised the draft Data Handling and Sharing Protocol. (NWPBT/03/SWG-06) The revised interim protocol as adopted is included as Attachment 3. In discussing the data protocol, there was agreement, with respect to commercial scale research efforts as well as data collected by observers on board commercial fishing vessels, that catch and

effort data should be treated as commercial data, as opposed to "other data" collected for purely scientific purposes. The Scientific Working Group noted that all participants should use the same criteria to categorize data as either commercial or other for purposes of the interim data handing and sharing protocols.

iv. Compile data and provide information on all current deepwater fisheries in NWP

The Scientific Working Group agreed that the compilation of information on current deepwater fisheries in the NWP is necessary for the implementation of the interim management measures. While the process of collecting comprehensive data on such fisheries is underway, the participants agreed to provide specific data on the level and geographical distribution of fishing effort, to identify the current footprint on an expedited basis (Attachment 4). Participants agreed to provide this information as soon as possible and no later than February 1, 2008. This should not preclude the collection and compilation of more comprehensive statistics as previously agreed. Further work is necessary to agree upon consistent names for each seamount as part of this exercise.

v. Develop a comprehensive collaborative research plan for TOR

The Scientific Working Group discussed the importance of the development and implementation of research plans as identified in the TOR for the success of the interim management measures. Participants identified country leads, draft time lines, and work to be completed intersessionally for five areas: (1) assessment of key species, (2) assessment of associate and dependent species, (3) evaluation of effects of bottom fishing on the long term sustainability of these species, (4) identification of vulnerable marine ecosystems (VME), and (5) assessment of the impacts of bottom fisheries on VMEs. The team leads and draft deadlines are listed in Attachment 5.

C) Information necessary to assess the status of key fish stocks affected by bottom fisheries on the high seas within the North Western Pacific Ocean

The Scientific Working Group agreed that the team leads established in 5b(v) and their points of contact should identify the information necessary to assess the status of key fish stocks affected by bottom fisheries on the high seas in the North Western Pacific Ocean.

D) Information necessary to assess the status of associated and dependent species affected by these fisheries

The Scientific Working Group agreed that the team leads established in 5b(v) and their points of contact should identify the information necessary to assess the status of associated and dependent species affected by these fisheries.

E) Information necessary to identify vulnerable marine ecosystems

The Scientific Working Group agreed that the team leads established in 5b(v) and their points of contact should identify the information necessary to identify vulnerable marine ecosystems

F) Information necessary to assess whether bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems including sea mounts, hydrothermal vents and cold water corals

The Scientific Working Group agreed that the team leads established in 5b(v) and their points of contact should identify the information necessary to assess whether bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems including sea mounts, hydrothermal vents and cold water corals.

6 Exchange of Information related to the status of fishing activities in the North Western Pacific Ocean

A) Japan

Dr. Yatsu provided a presentation on the attempts to apply a surplus-production model to alfonsin stock in the Emperor Seamount Chain (Nishimura and Yatsu) and Dr. Takashi Yanagimoto provided four presentations: 1) Preliminary results of the RV Kaiyo Maru survey in 2007 2) Preliminary results of ROV survey in 2006. 3) Progress situation of the Japanese data compilation, and 4) The 2006 Japanese catch data of trawl and bottom set net in the Mid North Pacific Seamounts area. Summary of the presentations is below.

Preliminary results of the RV Kaiyo Maru survey in 2007

RV Kaiyo Maru survey was conducted to assess bottom environment on June 2007.

XCTD, MCTD, and RMT net were conducted to research oceanic condition. And the dredge, beam trawl, and crab basket were conducted to collect invertebrate benthos. Acoustic survey was conducted to make topographical map of seamounts. Many crabs were collected by crab basket. *Chaceon affinis* was the most dominant species, followed by *Lithodes nintokuae* and *Chionoecetes japonicus pacificus*. The densities of crab (*Chaceon affinis*) were higher at sites where trawl fisheries are less intensive, in contrast to two sites where trawl fisheries are intensive. Given the difference in bottom depth of sites belonging to the major fishing grounds and those of less-utilized grounds, together with smaller sampling effort, we need more survey in order to judge whether the crabs, as large sized benthos, are subject to significant effect of trawling. We made accurate topographical map by GPS and acoustic data. Detail analysis of another survey was conducted in the near future. NWPBT/03/SWG-08

Preliminary results of ROV survey in 2006.

ROV survey was conducted to observe bottom environment by *RV Kaiyo Maru* in 2006. The ROV survey was conducted 16 times at various sites. Invertebrate benthos observed by the survey were identified to lowest possible taxonomic rank, and number of animals were counted. It was difficult to identify to species from pictures of digital camera, therefore most of the benthos were classified to genera with possible differences at species level. The observed species differed by each dive. Counting number of animals observed and calculation of average density (individuals per hour) will be completed by the time of next meeting. NWPBT/03/SWG-09

Progress situation of the Japanese data compilation

At the first meeting of the scientific working group on January 2007, it was decided to make inventory of existing scientific information of deep sea fisheries in the Emperor Sea Mount Chain. We explain about progress situation of the Japanese data compilation. The inventory of the Japanese catch data for trawl fisheries from 1971 to 2006 and bottom gill fisheries from 2002 to 2006 were nearly compiled. The inventory of survey and literature were also compiled, but it is considered that biological data were not available . NWPBT/03/SWG-10

The 2006 Japanese catch data of trawl and bottom set net in the Mid North Pacific Seamounts area. Catch data of trawl and bottom gill net in 2006 were summarized. The bottom gill net fisheries were conducted from C-H to Koko Seamount in 2006. A single vessel conducted bottom set net fisheries in the depth range of 350-950m

throughout the year. The dominant species was alfonsin (*Beryx splendens*) and oreo (*Allocyttus verrucosus*). The trawl fisheries were conducted from C-H Seamount to Nintoku Seamount in 2006. Seven vessels conducted bottom trawl fisheries in the depth of 265-980m throughout the year. The dominant species was alfonsin and pelagic armorhead (*Pseudopentaceros wheeleri*). The catch of alfonsin and armorhead by trawl were 3,656 and 1,488 ton in 2006, respectively. NWPBT/03/SWG-11

Attempts to apply a surplus-production model to alfonsin stock in the Emperor Seamount Chain Two different versions of surplus production models were applied to alfonsin stock in the Emperor Seamount Chain using Japanese CPUE data during 1969-2005. Both models indicated overfishing (F2005>Fmsy) and overfished (B2005<Bmsy) conditions. NWPBT/03/SWG-07

B) Korea

Korea reported that there is no updated information since the First Science Working Group Meeting in Busan in January 2007. Korea reported that it conducted scientific surveys in 2004 by three vessels, one research vessel, one bottom trawler and one bottom longliner in the High Seas areas of the northwestern Pacific Ocean. Every year since 2005, one bottom trawler has conducted fishing activities, targeting mainly alfonsin and armorhead.

C) Russia

The Russian delegation introduced information on results of fisheries activities in 2007 and pointed out that it has conducted fisheries since 1969 and scientific research since the latter half of the 1960s. During this time a remarkable volume of scientific data has been collected including the acoustic assessment of the biomass of armorhead. The Russian delegation noted that the completion of the processing of this data will take considerable time. The Russian delegation repeated their understanding expressed at the First Intergovernmental Meeting on the Establishment of a New Mechanism for Management of High Seas Bottom Trawl Fisheries in the North Western Pacific Ocean in 2006 that dense corals colonies are beyond the fishery trawling areas and Russian fishermen avoid these areas. The Russian delegation agreed that it is necessary to continue to collect scientific data on conditions of marine ecosystems of the High Seas areas of the northwestern Pacific Ocean in order to determine their status and on this basis, to work out measures for the conservation and management of the fisheries resources in the High Seas areas of the northwestern Pacific Ocean.

D) USA

Robert Humphreys (NMFS, PIFSC) made a brief oral presentation on history and population dynamics of armorhead at the Hancock Seamounts. From 1978-1984 observers were placed onboard all 11 Japan bottom trawl vessels fishing within the U.S. EEZ. By the end of 1984, the foreign permit fishery was discontinued due to sustained declines in armorhead catches. In 1986, a fishing moratorium at the Hancock Seamounts was initiated by the Western Pacific Fishery Management Council that has continued and is currently in effect until August 2010. From 1985 to 1993, the then NMFS Honolulu Laboratory conducted research monitoring and stock assessment of armorhead at SE Hancock. Population abundance was monitored and estimated during 1985-1990 based on bottom longline gear sets over the summits and upper slopes deployed during research cruises conducted 1-3 times annually. Results of the work are published in the report by Somerton and Kikkawa, 1992 (Fish. Bull., U.S. 90:756-769). No subsequent monitoring cruises or stock assessments at the Hancock Seamounts have been conducted (NWPBT/03/SWG-12)

7 Other Issues

No other formal matters were raised. Japan proposed that a small group of participants meet informally to further discuss data sharing and compilation protocols.

8 Adoption of the report of the meeting

Participants adopted the report of the meeting.

9 Closing of meeting

The meeting was concluded at 15:23 on Tuesday 23 October 2007.