



**Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

**Northern Committee
Thirteenth Regular Session**

**Busan, Republic of Korea
28 August – 1 September 2017**

SUMMARY REPORT

Acknowledgements

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AGENDA ITEM 1 — OPENING OF MEETING

1. The Thirteenth Regular Session of the Northern Committee (NC13) of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean took place in Busan, Korea, from 28 August – 1 September 2017. The meeting was attended by Northern Committee (NC) Members from Canada, Cook Islands, Fiji, Japan, Republic of Korea, Philippines, Chinese Taipei and United States of America (USA); and Observers from European Union, Republic of Marshall Islands, Mexico, International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), Pacific Islands Forum Fisheries Agency (FFA), Center for Blue Economy, Greenpeace, Organization for the Promotion of Responsible Tuna Fisheries (OPRT), The Pew Charitable Trusts, and World Wildlife Fund (WWF). The list of meeting participants is included as Attachment A.

1.1 Welcome

2. M. Miyahara, Chair of the NC, opened the meeting and welcomed participants to Busan, Korea. He thanked the hospitality of the Government of Korea for hosting the meeting. He also reminded the meeting of its tasks to be achieved during the week.

3. H-W. Kwon, Director of General Affairs Division, National Fishery Products Quality Management Service, Ministry of Oceans and Fisheries, made welcoming remarks on behalf of the Government of Korea. She emphasized that the meeting is held during the time when close attention is paid to PBF management. Given the difference of opinions, it may be difficult to reach an agreement but she believes that a solution can be found if CCMS cooperate to achieve a common goal of sustainable fisheries. She concluded her remarks by wishing for a successful meeting.

4. R. Moss-Christian, the Commission Chair, addressed the NC regarding her expectation on the work of NC13. She noted that the most recent stock assessment for bigeye has revealed a very different situation than the one we had previously understood. The latest stock assessment showed that in fact, the bigeye stock may be in better condition than previously thought and this has prompted a change in its status as well as in the way management measures are being developed. It means that the work of the Northern Committee in its management of Pacific Bluefin is that much more critical. Pacific Bluefin spawning biomass sits at just 2.6% of the unfished level. Though management of this stock sits well within the purview of this Northern Committee, its fate lies fully within the responsibilities of the WCPFC. Members of the Northern Committee will recall the outcome of WCPFC13 in Nadi last

December, where the Northern Committee was requested to take account of the following suggestions: That NC13 develop conservation and management measures for adoption at WCPFC14 to rebuild the stock to 20% SBF=0 levels at the latest by 2034; That NC13 develop an emergency rule to be adopted at WCPFC14 which stipulates specific rules all CCMs shall comply with when drastic drops in recruitment are detected. For this purpose, the ISC is requested to define a drastic recruitment drop and associated risks. She looked forward to productive discussions this week and to receiving recommendations in December that will do nothing short of improving the Pacific Bluefin stock.

1.2 Adoption of agenda

5. The provisional agenda was adopted without modification (Attachment B).
6. Documents supporting the meeting were made available on WCPFC's website (<https://www.wcpfc.int/meetings/nc13>).

1.3 Meeting arrangements

7. Chair clarified his intention on the meeting arrangement of NC13; As was the case last year, he intends to hold WCPFC NC-IATTC Joint Working Group Meeting during NC13 after the presentation of the results of ISC work in the previous year and reports from each CCM regarding their implementation of CMM on PBF. D. Lowman (USA) and himself were nominated as co-chairs. Its results will be reported to NC13 and IATTC. The NC approved the suggested meeting arrangements.
8. Korea, as the host country of NC13, briefed meeting participants on social arrangements.
9. It was agreed that S. Nakatsuka (Japan) would serve as the rapporteur for the meeting.

AGENDA ITEM 2 — CONSERVATION AND MANAGEMENT MEASURES

2.1 Report from the Seventeenth Meeting of the International Scientific Committee (ISC17)

10. G. DiNardo, ISC chair, presented the highlights of the 17th meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (NC13-IP-01). Highlights of his presentation on the ISC17 Plenary meeting were summarized below:

The 17th ISC Plenary, held in Vancouver, BC, Canada 11-17 July 2017 was attended by members from Canada, Chinese Taipei, Japan, Mexico, Republic of Korea, and the United States, as well as the Western and Central Pacific Fisheries Management Commission and the North Pacific Marine Science Organization. The Plenary reviewed results, conclusions, new data, and updated analyses of the Billfish, Albacore, Shark and Pacific Bluefin tuna working groups. The Plenary endorsed the findings that north Pacific albacore tuna and blue shark are not overfished nor experiencing overfishing. It was re-iterated that Pacific Bluefin tuna are overfished and experiencing overfishing, the Western Central North Pacific Ocean swordfish stock is not overfished nor experiencing overfishing, the Eastern Pacific Ocean swordfish stock is not overfished but likely experiencing overfishing, Pacific blue marlin stock is not overfished nor experiencing overfishing, and North Pacific striped marlin is experiencing overfishing and is overfished. The status of close-kin research was reviewed and a special seminar on HMS tagging was held. Plenary endorsed the science objectives for ISC and PICES collaborations and

discussed formalizing the ISC structure and administration, and agreed to continue researching means of doing both. Additionally, the ISC will form an Ad-Hoc Working Group to explore development of an international HMS tagging program with an initial focus on Pacific bluefin tuna and North Pacific albacore tuna under the auspices of ISC. Plenary also noted the strides WGs had made in incorporating best available scientific information (BASI) into stock assessment work, enhanced stock assessment reports and the increased transparency in Working Group efforts. Observers from Pew Charitable Trusts, Monterey Bay Aquarium, World Wide Fund for Nature – Japan, Wild Oceans, AFRF/AAFA, Tohoku University, and Waseda University attended. The ISC work plan for 2017-18 includes completing north Pacific swordfish, Pacific Bluefin tuna, and shortfin mako shark assessments, as well as hosting a shortfin mako shark ageing workshop, close-kin workshop and the 3rd MSEs workshop. John Holmes (Canada) was elected as the next ISC Chairman and Eric Chang (Chinese-Taipei) as the ISC Vice Chairman. The next Plenary will be held in the Rep. of Korea in July 2018.

11. G. DiNardo, ISC chair, then presented the summary of ISC PBF Stakeholders' meeting held in Japan in April 2017 (NC13-IP-07). Highlights of his presentation are summarized below:

The International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) hosted the First Pacific Bluefin Tuna International Stakeholders Meeting at the Mita Conference Hall (Mita Kaigisho) in Tokyo, Japan from 25-27 April 2017. The Objective of the meeting was to discuss the expected performance of 37 harvest scenarios relative to six candidate rebuilding targets and 9 performance metrics, under a range of assumptions regarding future recruitment conditions (low, average and combined low to average), to facilitate discussion on the selection of the next interim Pacific bluefin tuna (PBF) rebuilding target scheduled for decision at the August 2017 WCPFC-Northern Committee Meeting. Dr. Gerard DiNardo, Fisheries Resources Division Director at NOAA Fisheries, Southwest Fisheries Science Center and Chairman of the ISC, along with Mr. Masanori Miyahara, Japan Fisheries Research and Education Agency President and Chairman of the WCPFC-Northern Committee (NC), co-chaired the event.

As this was a public meeting, stakeholders were urged to candidly express their perceptions regarding the status of PBF, as well as perspectives on future rebuilding targets and potential rebuilding strategies to achieve the targets. Stakeholders were also reminded that at the 2016 WCPFC Commission Meeting the NC was requested to take due account of two specific suggestions: rebuilding PBF SSB to 20% unfished SSB by 2034 and development of emergency rules concerning drastic drops in recruitment and associated risks. While no final decisions were expected at this meeting, the discussions will inform decisions on an interim rebuilding strategy and target at the 2nd Joint IATTC-NC Meeting scheduled for August 2017.

Approximately 150 stakeholders participated in the event, including resource managers, scientists, industry (fisherman, farmers, retailers, and processors), representatives from Pacific Ocean tuna RFMOs, environmental organizations, and other stakeholders interested in PBF. Dr. H. Fukuda (NRIFSF) made a presentation entitled Pacific bluefin tuna (PBF) stock assessment and related information. Dr. Gerard DiNardo presented the additional PBF projections requested by IATTC and WCPFC and completed by Akita et al. (2017), and that were reviewed during the February 2017 PBFWG Workshop, as well as a summary of the findings.

While all participants were committed to rebuilding PBF as soon as feasible, the need to restructure fishing activities was also recognized. However, despite a full day of presentation materials on the critically low status of the PBT PBF stock, many stakeholders either believed

that the stock was already rebuilding, or that changing environmental conditions was the reason for low stocks. Large-scale industry stakeholders urged the ISC and the Government of Japan not to implement harsh measures, as fishery economic conditions in Japan are dire. The Projection results [from 2015] constitute new information relative to PBF conservation advice and these are the conclusions of the report can summarized as follows:

- Different recruitment scenarios forecast entirely different levels of SSB in the future;
- Under average recruitment conditions, all harvest scenarios achieve the initial rebuilding target of SSBMED1952-2014 by 2024;
- Under all recruitment conditions with zero removals (no fishing), SSB trajectories achieved all rebuilding targets by approximately 2020 and the initial rebuilding target, SSBMED1952-2014, within 2-3 years;
- Achieving 20%SSB₀ during the projection period was not possible in most of the low recruitment scenarios;
- The probability of SSB falling below the historical lowest level at any time during the projection period is low (< 2%) in all projections;
- Scenarios that do not have catch limits for large fish in the EPO and WPO, or has a higher catch limit for large fish in WPO, do not achieve the initial rebuilding target, SSBMED1952-2014, by 2024 under low recruitment;
- Reducing the catch of small fish results in positive impacts on SSB trajectories, even with increases in the catch of large fish in the WPO.

12. The USA thanked the outgoing ISC chair (G. DiNardo) for eight years of service. He welcomed the incoming chair (J. Holmes) and looked forward to working with ISC under the new chairmanship in regards to requests from NC to ISC.

13. J. Holmes, outgoing ALBWG Chair, summarized results of the stock assessment the ISC Albacore Working Group (WCPFC-NC13-IP-05).

The north Pacific albacore tuna stock was assessed using a length-based, age-, and sex-structured Stock Synthesis (SS Version 3.24AB) model over the 1993-2015 period. Sex-specific growth curves from the 2014 assessment were used because of evidence of sexually dimorphic growth, with adult males attaining a larger size-at-age than females after maturity. Sex-specific M-at-age vectors were developed from a meta-analysis. The steepness of the Beverton-Holt stock-recruitment relationship was assumed to be 0.9, based on two prior analyses. The assessment model was fitted to the Japan LL index (1996-2015; Area 2) and all representative size composition data in a likelihood-based statistical framework. All fleets were assumed to have dome-shaped length selectivity, and age-based selectivity for ages 1-5 was also estimated for surface fleets (troll and pole-and-line) to address age-based changes in juvenile albacore availability and movement. Selectivity was assumed to vary over time for fleets with important changes in fishing operations. Maximum likelihood estimates of model parameters, derived outputs, and their variances were used to characterize stock status.

An age-structured production model diagnostic analysis showed that the estimated catch-at-age and fixed productivity parameters (growth, mortality and stock-recruitment relationship without annual recruitment deviates) were able to explain trends in the Japan LL index. Based on these findings, the ALBWG concluded that the base case model was able to estimate the stock production function and the effect of fishing on the abundance of the north Pacific albacore stock. The link between catch-at-age and the Japan LL index adds confidence to the data used, and represents a major improvement in the 2017 assessment of the north Pacific albacore stock. Due to the moderate exploitation levels relative to the productivity, the production function was

weakly informative about north Pacific albacore stock size, resulting in asymmetric uncertainty in the absolute scale of the stock, with more uncertainty in the upper limit of the stock than the lower limit. It is important to note that the primary aim of estimating the female spawning biomass (SSB) in this assessment was to determine if the estimated SSB was lower than the limit reference point (i.e., determine whether the stock is in an overfished condition). Since the lower bound is better defined, it adds confidence to the ALBWG's evaluation of stock condition relative to the limit reference point.

Stock Status

Estimated total stock biomass (males and female at age-1+) declines at the beginning of the time series until 2000, after which biomass becomes relatively stable. Estimated female SSB exhibits a similar population trend, with an initial decline until 2003 followed by fluctuations without a clear trend through 2015. The estimated SPR (spawners per recruit relative to the unfished population) in 2015 is 0.53, which corresponds to a moderate exploitation intensity (i.e., $1-SPR = 0.47$). Instantaneous fishing mortality at age (F-at-age) is similar in both sexes through age-5, peaking at age-4 and declining to a low at age-6, after which males experience higher F-at-age than females up to age 13. Juvenile albacore aged 2 to 4 years comprised, on average, 70% of the annual catch between 1993 and 2015.

Stock status is depicted in relation to the limit reference point (LRP; 20%SSB_{current}, F=0) adopted by the WCPFC for the stock and the equivalent fishing intensity (F20%; calculated as $1-SPR_{20\%}$). The 20%SSB_{current}, F=0 LRP is based on dynamic biomass and fluctuates depending on changes in recruitment. Fishing intensity (F, calculated as $1-SPR$) is a measure of fishing mortality expressed as the decline in the proportion of the spawning biomass produced by each recruit relative to the unfished state. For example, a fishing intensity of 0.8 will result in a SSB of approximately 20% of SSB₀ over the long run. Fishing intensity is considered a proxy of fishing mortality. F-based reference points have yet to be adopted for this stock.

The Kobe plot shows that the estimated female SSB has never fallen below the LRP since 1993, albeit with large uncertainty in the terminal year (2015) estimates. Even when alternative hypotheses about key model uncertainties such as natural mortality and growth were evaluated, the point estimate of female SSB in 2015 (SSB₂₀₁₅) did not fall below the LRP, although the risk increases with these more extreme assumptions. The SSB₂₀₁₅ was estimated to be 80,618 t and was 2.47 times greater than the LRP threshold of 32,614 t. Current fishing intensity, F₂₀₁₂₋₂₀₁₄ (calculated as $1-SPR_{2012-2014}$), was lower than potential F-based reference points identified for the north Pacific albacore stock, except F50% (calculated as $1-SPR_{50\%}$).

Based on these findings, the following information on the status of the north Pacific albacore stock is provided:

The stock is likely not overfished relative to the limit reference point adopted by the Western and Central Pacific Fisheries Commission (20%SSB current F=0), and No F-based reference points have been adopted to evaluate overfishing. Stock status was evaluated against seven potential reference points. Current fishing intensity (F₂₀₁₂₋₂₀₁₄) is below six of the seven reference points (see ratios in Table ES1), except F50%.

Conservation Information

Two harvest scenarios were projected to evaluate impacts on future female SSB: F at the 2012-2014 rate over 10 years (F₂₀₁₂₋₂₀₁₄) and constant catch (average of 2010-2014 = 82,432 t) over 10 years. Median female SSB is expected to decline to 63,483 t (95% CI: 36,046 - 90,921 t) by 2025, with a 0.2 and <0.01 % probability of being below the LRP by 2020 and 2025, respectively, if fishing intensity remains at the 2012-2014 level. In contrast, employing the constant catch

harvest scenario is expected to reduce female SSB to 47,591 t (95% CI: 5,223 - 89,958 t) by 2025 and increases the probability that female SSB will be below the LRP to about 3.5 and 30 % in 2020 and 2025, respectively. In addition, as biomass declines during the projection period the fishing intensity approximately doubles by 2025. Although the probabilities of declining below the LRP in both harvest scenarios are likely higher in the future, even the most extreme results from other model runs with plausible alternative assumptions show that female SSB is not likely to have declined below the LRP throughout the assessment period (1993 – 2015).

Based on these findings, the following information is provided:

If a constant fishing intensity (F2012-2014) is applied to the stock, then median female spawning biomass is expected to undergo a moderate decline, with a < 0.01% probability of falling below the limit reference point established by the WCPFC by 2025. However, expected catches in this scenario will be below the recent average catch level for this stock.

If a constant average catch (C2010-2014 = 82,432 t) is removed from the stock in the future, then the decline in median female spawning biomass will be greater than in the constant F intensity scenario and the probability that SSB falls below the LRP will be greater by 2025 (30%). Additionally, the estimated fishing intensity will double relative to the current level (F2012-2014) by 2025 as spawning biomass declines.

14. It was clarified that the information from all the countries involved with albacore fisheries was incorporated in the assessment, both from ISC and non-ISC countries. However, the size information from non-ISC countries as well as China were not provided, so only catch information is used from those countries.

15. The reason for not including old period in the latest assessment was clarified. Through the assessment process, it was found that production function (i.e. relationship between catch and biomass trend) was hardly detected in the period of 1966-92, indicating that the biomass level of this period was mainly informed by size data, which is not desirable. In addition, very large fish suddenly appeared and then disappeared in this period and including this period made the model fit much poorer. Based on those findings, ALBWG decided to exclude this period from the present assessment until further information is available but the WG intends to continue looking into the issue as an ongoing matter.

16. It was also clarified that the calculation of LRP for NPALB is different from those for tropical tunas; In case of NPALB, the dynamic SSB0 of the terminal year is used while the average of recent 10 year is used in tropical tunas.

2.2 Report of the Thirteenth Regular Session of the Scientific Committee (SC13)

17. The Science Manager S-K. Soh presented the results of the thirteenth regular session of the Scientific Committee (NC13-IP-02) related to NC issues. His presentation is summarized as follows:

- a) SC13 was held in Rarotonga, Cook Islands from 9-17 August 2017. Ms. Berry Muller (RMI) continued to chair the meeting.
- b) The provisional total tuna catch for 2016 was estimated at 2,717,850 mt, the second highest on record, which is 79% of the total estimated Pacific Ocean catch of 3,406,269 mt and 56% of the provisionally estimated global tuna catch of 4,795,867 mt in 2016.
- c) Several data related recommendations from SC13 include:
 - review of large-scale purse seine fishery bycatch at a regional scale during 2003-2016, recommending that the SPC continue this work on purse seine bycatch estimates and extend this work to the longline fisheries for presentation at SC14;

- review of the outcome of the FAD Management Options IWG-02, including FAD data fields to be provided by vessel operators and observers, respectively, which will be forwarded to TCC13 for further consideration;
 - an EMandER WG be convened prior to SC14; and
 - an intersessional work for the development of guidelines for the CCM's voluntary provision of economic data to the Commission, the output of which will be considered by TCC13.
- d) SC13 reviewed stock assessments for bigeye, yellowfin, North Pacific albacore, North Pacific blue sharks and risk assessments for and Pacific bigeye thresher shark. Among these, bigeye stock assessment was highlighted because of new information on growth curve and changes in spatial structure for assessment, resulting in significant changes in stock status and management implications toward optimistic directions.
- e) Administrative issues include:
- a new SC Chair and a Vice-Chair will be selected at the Commission meeting in Manila, December 2017; and
 - SC14 will be held in Korea in 2018, and Samoa offered to host SC15 in 2019.

2.3 Conservation and management measure for northern stocks

2.3.1 Pacific bluefin tuna

2.3.1.1 Review of CCM reports

18. Canada (NC13-DP-01) reported that there are no fisheries targeting PBF to report. It was noted that there was 55t of import of PBF in 2016 and the CCM report will be duly corrected to reflect it.

19. China was not present and its report (NC13-DP-02) was introduced by Chair; China reported that there is no vessel fishing for PBF and it is taking a heavy punitive measure on any illegal catch of PBF. China also suggested that its domestic catch clearance certificate could be considered for the development of CDS. NC13 urged the participation of China in future meetings.

20. Cook Islands (NC13-DP-03) reported that they have no fishing efforts targeting PBF. It also expressed concern over the lack of progress on the management of PBF and reminded the NC that how NC manages PBF which is at critically low biomass is closely watched by FFA members, NGO and a wider society. Tangible outcome is necessary from NC13 and moratorium of fishing for several years may be suggested under such a circumstance.

21. The USA noted that Japan reported 0.7 t PBF import from Cook Islands and requested a clarification. Cook Islands responded that it is likely that both southern bluefin tuna and Pacific bluefin are recorded as bluefin tuna in Cook Islands. Cook Islands will investigate it and correct its report.

22. Fiji reported that there are no fisheries targeting PBF and there was no catch of PBF in 2016.

23. Japan reported its implementation of CMM2016-04 (NC13-DP-05). First, its management system of various fisheries catching PBF was explained; Purse seine vessels operate under licensing system and they mainly target small pelagic species such as mackerel and sardine, with PBF being caught only for its migration season. There are three purse seine fishing grounds; in the western fishing ground, mainly small PBF are caught while large PBF are caught in the other two areas. With regard to artisanal fisheries, which include troll, handline and jigging, about 24,000 vessels are licensed and catch PBF depending on migration. The vast majority of those vessels are troll vessels and they traditionally spread throughout

Japan, in particular in remote areas. They normally operate on a day-trip basis, within the territorial waters. Set net is managed under licensing system as well and there are about 1,800 set nets throughout Japan. It is a passive gear, waiting for migration of fish including PBF. The proportion of PBF catch among the total catch by set net is mere 0.3%, making it difficult to control the catch of PBF.

24. Japan's catch limit for small fish under CMM2016-04 is 4007 t, of which 2,000 t was allocated to purse seine and 2,007 t was allocated to coastal fisheries. It should be noted that purse seine and other fisheries operate under different definitions of "year"; Calendar year for purse sein and fishing year (July to June following year) for other fisheries. Catch limit for purse seine is allocated for associations and catch is monitored at landing ports. Catch limit for coastal fisheries are allocated to six areas and there is also a separate limit for set net due to its characteristics. Catch is monitored by area/gear basis. When catch limit is approaching the limit, the government issues alerts. The catch of large fish in 2016 was 4,368 t, against the limit of 4,882 t.

25. For coastal fisheries, the small fish catch in the fishing year from January 2015 to June 2016 was 1,633 t, which is below the limit. However, the catch of the 2016 fishing year (July 2016 to June 2017) reached 2,337 t. Due to a much faster catch increase in the 2016 fishing year, the catch could not be contained despite every effort by government, local government and fishermen. As a result, Japan's overage of 2016 catch limit for small fish was 334 t in total and this amount will be deducted from the catch limit of the 2017 fishing year, in accordance with the CMM 2016-04. The good catch record is due to the improvement of fishing conditions caused by much better migration of small fish in the 2016 fishing year. Japan explained several reasons for the overage. In addition, Japan explained instances when normal fishing operations not targeting PBF are obstructed by possibly by the increase of availability of PBF in squid jigging, yellowtail longline, and pole-and-line/troll fisheries. The most difficult one is set net; In order to reduce PBF catch, some are required to reduce the frequency of harvest including the stoppage of operation for some time, sacrificing the catch of other fish as well.

26. Japan also explained the situation related to unauthorized or unreported catch of PBF. After investigations, it was found that the catch from unauthorized/unreported catch in the 2016 fishing year was 132.1 t, almost all of which is small fish. There are several causes for the incidents, for example, unauthorized fishing occurred when fishing vessels fished before its license was issued. Some of the catch was unreported when landed in ports not usually used for PBF landing. The causes of those incidents were considered to be that management system could not cope with the unexpected and great improvement of fishing condition in the 2016 fishing year. In order to avoid a similar situation in future, Japan will introduce TAC system with penalty starting from 2018. It will also make several improvements such as introduction of a reporting system to collect information in a more timely manner.

27. Japan also explained its management of aquaculture, which is basically not changed since last year; Aquaculture sites for PBF must be registered and farming capacity using wild seeds cannot be increased in order to contain the demand for small PBF. Japan's recruitment monitoring was also explained. Based on information from 72 survey troll vessels, it is found that 2016 recruitment is much better than that of 2014, which is considered to be at the historical low level. Recruitment index is getting better from 2014 to 2015 and 2016. Regarding trade, Japan requested Korea to stop export to Japan when import from Korea exceeded its voluntary catch limit of 671 t. For monitoring of catch, monthly information is collected through purse seine association or local fisheries cooperatives. For better monitoring of aquaculture activities, data on the number of fries put into farms, source of fries and amount of final products are collected.

28. Japan reported that it had reduced the small fish catch limit for purse seine fishery by 500 t, i.e., from 2,000 to 1,500. Out of 500 t, 250 t is reserved by FAJ to respond to contingencies and 250 t is

converted to the large fish catch limit of purse seine fishery. Therefore, the catch limit for small fish and the catch limit for large fish will be 3,423 t (4,007-250-334) and 5,132 t, respectively in the 2017 fishing year. Also, this conversion will increase the probability to rebuild SSB to the historical median in 2024 from 62% to 73%, according to the provisional calculation by the ISC PBF WG.

29. Chinese Taipei noted that it was unfortunate that overcatch occurred but it considered it as a result of substantial increase of recruitment in 2016. It also urged Japan to take further monitoring efforts as mentioned by Japan so that this does not ever happen again. Chinese Taipei asked for more detail about the timely monitoring Japan is suggesting and explanation for the reason for the two different “year” definition among fishing gears and its consistency with CMM2016-04.

30. Japan noted that the explanation about monitoring was included in the presentation but can explain if Chinese Taipei provides more specific questions. With regard to the two different year definitions, Japan explained that the end of calendar year coincides with high fishing season of PBF in coastal fisheries thus cutting fishing year in the middle will cause a tremendous confusion in management. It further emphasized that the first management year covered 18 months (Jan 2015 – June 2016) with the catch limit of 1 year.

31. Korea noted that some new farms were apparently started in 2017 and asked the proportion of those farms using wild seeds. In addition, it asked how many stereo cameras were introduced and if that is a required or voluntary measure.

32. Japan explained that new farming facilities can be opened if it uses artificial fry derived from hatcheries. Japan also explained that in accordance with instruction from FAJ, farmers use stereo video camera to monitor all transfer of fry from purse seiners to farms.

33. The USA appreciated the difficulty Japan is facing for managing small scale fisheries. It further asked how the unreported catch was detected and how accurate the level of discovered unreported catch is. It also asked if the TAC system for coastal fisheries will start in July 2017 or 2018.

34. Japan replied that it uses information from various sources such as fishermen, buyers and local government for the detection of unreported catch. Although it cannot assure the data is 100% accurate, it believes that the data covers unreported/unauthorized catch well. With regard to TAC system, it will start from January 2018 for purse seine and July 2018 for coastal fisheries. It should be noted that it takes time for introduction of binding measure.

35. Korea reported its implementation of CMM2016-04 (NC13-DP-06) in which “East Sea” was referred to. The number of LSPS catching PBF in 2016 is below the reference level of 2002-2004. Ministerial Directive is in place which controls fishing effort and requires daily reporting of PBF catch. It can also prohibit sale of PBF. In 2016, Korean vessels caught 1,028 t of PBF, among which 559 t is small fish and 469 t is large fish. The schedule of voluntary payback of overage in 2016 had been already announced by the Korean Government; 50% (235 t) of the total overage will be equally deducted from each year’s catch limit for PBF less than 30kg over the period of 2017 to 2021. The results of juvenile monitoring program around Jeju Island was reported to ISC in 2017 and will be expanded in 2017. For monitoring, landing of PBF is only allowed to be sold at designated market under the Ministerial Directive and the government can take measures including the prohibition of fishing and landing of PBF and the closure of designated markets, if necessary. From last year, all fishers are required to report any PBF catch within 24 hours. Sampling for close-kin analysis also started in 2016.

36. Japan asked, considering the substantial increase of catch of small fish in traps in Japan, how Korea can monitor such possible cases in PBF catches in traps.

37. Korea noted that recent news report which indicates that a substantial number of PBF were caught by trap was a mistake and a correction was requested from the Ministry. It repeated that Korean government introduced monitoring system which requires that all the PBF catch including bycatch should go through designated consignment market which is monitored by enforcement officers. In addition, there is a strict reporting requirement where PBF catch needs to be reported within 24 hours.

38. Japan made the following statement: “Sea of Japan” is the one and only internationally established and recognized name for the sea area concerned. The United Nations has already officially confirmed its policy using the name “Sea of Japan” as the standard geographical term in official UN documents. In addition, governments of a number of countries recognize the name “Sea of Japan” as the official name. Thus, Japan never accepts the name “East Sea”. The ROK should use the one and only internationally established name, “Sea of Japan”. We request that the ROK correct the name “East Sea” to “Sea of Japan” and the correction be recorded in the summary report.

39. Korea rejected the comments made by Japan and reaffirmed that its position on the issue remains the same as expressed in the Attachment C of the report of NC12. It stressed that the current forum is not appropriate for the discussion of such a diplomatic matter and refrained from making further comments (see Attachment C for the official statement of Korea).

40. Japan further made the following statement: It is regrettable that the ROK does not accept our legitimate request. We will not repeat our views on the use of the name “Sea of Japan”, which we already explained. WCPFC is the Commission to discuss the long-term conservation and sustainable use of highly migratory fish stocks in the Western and Central Pacific Ocean, and it is not appropriate to discuss the name “Sea of Japan” in WCPFC. Therefore, we request that our remark, that is, the name “East Sea” is not appropriate and “Sea of Japan” should be used, be recorded in the summary report. Also, the disclaimer that is “The geological name used in documents submitted by each member does not reflect official position of WCPFC” should be inserted in the summary report (see Attachment D for the official statement of Japan).

41. Philippines (NC13-DP-07) reported that there is no fishing targeting tunas in the area north of 20 degree north. In the area south of 20 degree north, one PBF weighing 215 kg was caught.

42. Chinese Taipei (NC13-DP-08) reported that 504 longliners fished for PBF in 2016, against 660 vessels in 2002-2004. The catch in 2016 was 480 t which is below 2002-2004 level. The data collection scheme using CDS was previously explained in detail. In 2016 there is no export of PBF while 3.3 t was imported.

43. Korea asked for the reason why the catch declined while the number of vessels operating increased. It further asked how many officers are present for verifying CDS and if CDS is verified before or after the landing.

44. Chinese Taipei replied that the operation days were not increased although the number of vessels increased in 2016. It also clarified that PBF is landed in three major domestic ports and officers are present during their opening hours and that CDS verification is done before sale at landing ports.

45. Chair recalled that Chinese Taipei once commented that it had not designated domestic landing ports for PBF. Chinese Taipei clarified that it is preparing to designate landing ports for PBF. This may happen in 2018.

46. Chair further asked if the landing in ports other than those designated would be prohibited and sale of PBF without CDS would also be prohibited. Chinese Taipei confirmed these.

47. Japan asked what type of fisheries are included in “other coastal fisheries” and where they operate. Chinese Taipei clarified that set net and gill net are included and they mostly operate within its EEZs. They catch fish larger than 100kg.

48. The USA (NC13-DP-09) reported that there is no vessel fishing for PBF in the Convention area. There were small amount of bycatch by longline but they appear on the report as 0 as it is less than 0.5 t. Although the USA has a limited involvement in PBF fisheries, it is highly concerned with the status of PBF. It expected NC13 to take a long-term meaningful action together with IATTC during the week.

49. Japan noted that it is reported that longline vessels from Kauai catches PBF and asked if those vessels are properly monitored.

50. The USA noted that this is bycatch from longline vessels based out of Hawaii and that we monitor at landing ports and also that those vessels have high observer coverage. It was also clarified that the catch by those vessels are all large fish.

51. The USA also clarified that its PBF catch is reported separately for its overseas territories. The territories with catch of 0 t in the report are those with catch less than 0.5 t while other territories not included in the report had no PBF catch.

52. Vanuatu was not present and did not submit report.

53. It was noted the geological name used in documents submitted by each member does not reflect official position of WCPFC.

2.3.1.2 Joint Working Group Meeting between NC and IATTC on Pacific bluefin tuna conservation management

54. NC13 received the report of Joint Working Group Meeting between NC and IATTC (Attachment E).

55. NC13 endorsed the conclusions of the joint working group meeting and agreed to incorporate them into relevant recommendations to the Commission.

56. The USA introduced its proposal of harvest strategy for PBF (NC13-DP-12), which follows the structure of harvest strategies suggested in CMM2014-06. The USA revised the proposal so as to incorporate the recommendations from the Joint Working Group and the NC thanked the USA and further refined the revised proposal.

57. NC13 recommends that the Commission adopt the Harvest Strategy for Pacific Bluefin Tuna Fisheries (Attachment F), and recommends that the Commission direct the Secretariat to make this harvest strategy available, as a stand-alone harvest strategy document, on a web page

dedicated to this and other harvest strategies, including interim harvest strategies, adopted by the Commission.

58. **NC13 revised the existing CMM to incorporate the adoption of Harvest Strategy. NC13 recommended a draft CMM for the management of PBF (Attachment G) to WCPFC14 for its adoption. NC13 also requested the Secretariat to summarize PBF catch reported by all CCMs.**

2.3.2. North Pacific albacore

2.3.2.1 Review of CCM Reports

59. Summary of CCMs' reports on NPALB fisheries in accordance with CMM2005-03, prepared by the Secretariat, (NC13-WP-01) was presented.

60. Philippines noted that there was 79 t catch of ALB, which consists less than 0.01% of total catch in the Convention Area. It is mainly bycatch of handline fisheries targeting yellowfin tuna, which is usually conducted by vessels less than 3 GT. It noted that it is difficult to define effort for albacore because it is bycatch.

61. Japan requested to modify the document to clarify that its ALB catch is from north of the Equator.

62. Mexico noted that, although its ALB catch is very small, it is providing information to ISC and can provide it to NC as well. NC welcomed the offer.

63. Japan noted with concern that some countries catching NPALB, namely China and Vanuatu, are not present and suggested that NC should request those countries to participate in NC. It further noted that Vanuatu increased its effort for NPALB substantially in 2014 and 2015 while no data is provided from China for 2016.

64. ISC noted that the information from those two countries would improve the work of ALBWG and NC's support is appreciated.

65. Cook Islands noted that the catch information should be summarized for the high seas and within the EEZs separately, as in the case of tropical tunas.

66. **NC13 agreed to request NC Chair to write a letter to China and Vanuatu to urge participation to NC and data submission to ISC.**

2.3.2.2 Precautionary management framework of NPALB

67. The USA, on behalf of the cosponsor, Canada, introduced its proposal to modify the existing Precautionary Management Framework (NC13-DP-13). The main purpose of the proposal is to change its title to Interim Harvest Strategy to clarify the nature of the document and to propose the Commission adopt it formally as a harvest strategy and provide it with appropriate publicity.

68. Japan supported the proposal and made several suggestions to make the document reflect recent developments in the Commission.

69. Canada emphasized that it is important the framework be recognized formally by the Commission as an interim harvest strategy.

70. The USA provided the revised version. NC13 endorsed the proposal.

71. **NC13 recommends that the Commission adopt the attached revision to the title of previously adopted precautionary management framework for North Pacific albacore (Attachment H), so that it may be recognized as a harvest strategy. In addition, NC13 recommends that the Commission direct the Secretariat to make this harvest strategy available, as a stand-alone harvest strategy document, on a web page dedicated to this and other harvest strategies, including interim harvest strategies, agreed to by the Commission.**

72. **NC13 requested ISC to calculate LRP for NPALB as 20% of the dynamic unfished SSB of the terminal year in the latest assessment.**

73. **NC13 also noted that ISC is planning 3rd MSE workshop for NPALB in Vancouver, Canada on 17-19 October 2017 and urged the participation of relevant stakeholders to the meeting.**

2.3.2.3 Review of the conservation and management measure

74. Chair reminded NC13 of the results of the latest assessment of NPALB which indicated that the current level of catch would decrease the stock in a long-term, while, if the current effort is maintained as stipulated in the current CMM, the stock will remain stable.

75. **NC13 agreed that no change is necessary for the current CMM2005-03.**

2.3.3 North Pacific swordfish

76. It was informed that ISC plans to conduct assessment in 2018. Chair suggested that it might be prudent to wait for the latest scientific information to discuss the management scheme of NPSWO and encouraged members to bring proposal for the discussion of management framework in NC14.

77. While noting that it had made a proposal on management framework of the stock, the USA noted that it is not in a position to finalize interim objective and reference points this year as stipulated in the work programme and supported the suggestion by Chair to discuss the issue next year. It stressed that it is necessary to address the management issue of NPSWO and hoped a priority is given for the discussion next year.

78. Cook Islands noted once again that the catch information should be summarized for the high seas and within the EEZs separately, as in the case of tropical tunas.

79. **NC13 agreed to discuss the matter further in NC14, as a matter of priority.**

2.4 Conservation and management measures for other species

2.4.1 Bigeye, yellowfin and skipjack tunas (CMM 2013-01)

80. Japan reiterated its concern over the possible impact of purse seine fisheries in the tropical area, in particular for skipjack, as the same stock is migrating to areas around Japan. The catch of skipjack has been poor recently and this is also the case this year. In addition, poor migration of skipjack could cause target shift of those fishermen who usually target skipjack and increase pressure on other species.

Therefore, it proposed to maintain the same language expressing the concern of NC over the high level of exploitation of tropical tunas in the equatorial region.

81. Cook Islands noted that information provided to SC13 demonstrated that fishing activities in tropical area does not significantly impact the area around Japan.

82. Secretariat clarified the discussion at SC13 regarding Project 67 on the impacts of recent catches of skipjack tuna on fisheries on the margins of the Convention Area (SC13-SA-WP-07). In this study, though a significant connectivity between equatorial and higher latitudes is suggested, the high biomass predicted in the equatorial regions limits the impact of the equatorial purse seine fishery on the stock at northern latitudes. The connectivity among the areas and the impact to the stock in the northern area may be sensitive to model setting.

83. Japan noted that the project is ongoing and that it is not concluded that there is no connectivity between tropical and temporal area at this stage.

84. The USA also noted that its skipjack fisheries in temporal area in Guam see apparent retraction of stock. Therefore, the USA supports the continuation of Project 67 and to record the same language as last year.

85. Cook Islands noted that the results provided to SC13 did not deny the connectivity but indicated that impact of tropical fisheries on temporal fisheries is negligible, which is the key finding.

86. **NC13 expressed its concern regarding the status of tropical tuna stocks, not only because those species are being caught in the northern area, but also that the status of those species could impact the management of other species through target shift in the northern area.**

87. **NC13 noted the updated information on stock status provided by SC13, including the progress of Project 67 on the impacts of recent catches of skipjack tuna on fisheries on the margins of the WCPFC Convention Area. NC13 noted that work under Project 67 is on-going and there may be updated advice.**

2.4.2 North Pacific striped marlin

88. Chair noted that no new management measure was adopted at the last year's Commission despite the low status of the stock.

89. The USA echoed the concern of Chair. It also noted that the Commission has not designated it as a northern stock but if it were, NC could have taken action. The USA reiterated that the stock should be designated as a northern stock but until then the Commission is responsible for its management. As it is mainly a bycatch species, appropriate measures may need to be considered.

90. Cook Islands also shared their concern over the status of the stock

91. **NC13 expressed concern over the status of NP striped marlin and urged the Commission to develop a rebuilding plan for the stock as a matter of priority. NC members are encouraged to submit a draft CMM, if possible.**

2.4.3 Sharks

92. Chair drew attention of the meeting to the results of the latest assessment of north Pacific blue shark by ISC, which concluded that the stock is likely not overfished nor subject to overfishing.

93. Japan asked ISC if additional information became available through new assessment relevant to the designation of blue shark as a northern stock.

94. ISC responded that no new information is available in that regard and that the evaluation for designation issue was referred to SPC many years ago.

95. Japan noted that no new information became available that indicate the species should not be designated as a northern stock, thus it supports to reiterate the outstanding request to the Commission to decide if north Pacific blue shark should be designated as a northern stock.

96. NC13 recommends WCPFC14 decide if NP blue shark should be designated as a northern stock based on the available information from ISC, SPC and the advice of SC.

2.4.4 Seabirds

97. NC13 noted that new seabird mitigation measures came into effect in the northern Pacific in 2017.

98. The USA noted as some fisheries in the north Pacific do have significant interaction with seabirds, it is important to review the implementation of the mitigation measures in the area.

99. NC13 encouraged its members to submit information to NC14 regarding the implementation of new seabird mitigation measure for small scale vessels which starts from 2017.

2.4.5 Sea turtles

100. The USA noted that it is reviewing the sea turtle mitigation measure as a whole, taking into account the review under ABNJ, and considering the development of a proposal to improve the CMM.

AGENDA ITEM 3 — REGIONAL OBSERVER PROGRAMME

101. NC13 encouraged its member to submit information regarding the implementation of regional observer program in the north Pacific.

AGENDA ITEM 4 — VESSEL MONITORING SYSTEM

102. NC13 noted that there is no outstanding issue regarding VMS related specifically to the area north of 20 degree north, thus agreed to delete the item from agenda of NC14.

AGENDA ITEM 5 — DATA

5.1 Review of the status of data and data gaps for northern stocks

103. It was noted that China did not provide information to NC that is required under CMMs. NC13 encouraged China to submit all required information to NC.

AGENDA ITEM 6 — COOPERATION WITH OTHER ORGANIZATIONS

6.1 ISC

104. NC13 noted that cooperation with ISC is critical for the advance of the tasks of NC. In particular, more close coordination is necessary for development of MSE for NPALB and PBF. NC13 confirmed its commitment to assist ISC in those regards.

6.2 IATTC

105. NC13 confirmed the usefulness of the Joint Working Group between WCPFC NC and IATTC for the discussion on the management of PBF and supported its continuation. In order to enhance the effectiveness, it was suggested to hold the Joint Working Group meeting in conjunction with IATTC commission as well. However, logistical challenge due to the fact that IATTC meeting is usually prior to ISC plenary meeting was noted. Reciprocal change of meeting place may be considered in the process of MSE. It was also proposed to designate co-chairs of the next meeting of Joint Working Group at NC13 so that co-chairs can work effectively in advance.

106. NC13 agreed to hold the 3rd meeting of Joint Working Group between WCPFC NC and IATTC in conjunction with NC14. Current co-chairs (M. Miyahara and D. Lowman) were requested to continue and to construct draft agenda for the next meeting. The Joint WG further agreed to request co-chairs to evaluate feasibility to hold the future Joint WG meeting in conjunction with IATTC annual meeting.

AGENDA ITEM 7 — FUTURE WORK PROGRAMME

7.1 Work programme for 2018-2020

107. NC13 revised and adopted its future work programme (Attachment I). The NC considered that the requirement under CMM2014-06 (establishing time table for development of management framework) was duly addressed in its work programme.

AGENDA ITEM 8 — OTHER MATTERS

8.1 Administrative arrangements for the Northern Committee

8.1.1 Secretariat functions and costs

108. There were no discussions on this item but it was agreed to keep the item for future meetings.

8.1.2 Rules of procedure

109. There were no discussions on this item but it was agreed to keep the item for future meetings.

8.2 Next meeting

110. Japan offered to host NC14 in 2018. The venue will be notified to NC members in due course. NC13 welcomed the offer by Japan and agreed in principle to hold the meeting in the first week of September (9/3-7) for 5 days. The timing and duration of the technical meeting to discuss CDS should be decided through correspondence.

111. The USA is considering an offer to host NC15 in 2019.

8.4 Other matters

112. There were no discussions on this item.

AGENDA ITEM 9 — ADOPTION OF THE SUMMARY REPORT OF THE THIRTEENTH REGULAR SESSION OF THE NORTHERN COMMITTEE

113. NC13 adopted the Summary Report of its Thirteenth Regular Session.

AGENDA ITEM 10 — CLOSE OF MEETING

114. The meeting was closed on 1 September 2017.

**The Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

**Northern Committee
Thirteenth Regular Session**

August 28 – September 1, 2017
Busan, Republic of Korea

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**The Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

**Northern Committee
Thirteenth Regular Session**

August 28 – September 1, 2017
Busan, Republic of Korea

Agenda

AGENDA ITEM 1 OPENING OF MEETING

- 1.1 Welcome**
- 1.2 Adoption of agenda**
- 1.3 Meeting arrangements**

AGENDA ITEM 2 CONSERVATION AND MANAGEMENT MEASURES

- 2.1 Report from the Seventeenth Meeting of the International Scientific Committee**
- 2.2 Report of the Thirteenth Regular Session of the Scientific Committee**
- 2.3 Conservation and management measures for the northern stocks**
 - 2.3.1 Pacific bluefin tuna (CMM 2016-04)**
 - 2.3.1.1 Review of CCM report
 - 2.3.1.2 Joint Working Group Meeting between NC and IATTC on Pacific bluefin tuna conservation management
 - 2.3.2 North Pacific albacore (CMM 2005-03)**
 - 2.3.2.1 Review of CCM report
 - 2.3.2.2 Precautionary management framework
 - 2.3.2.3 Review of the conservation and management measure
 - 2.3.3 North Pacific swordfish**
- 2.4 Conservation and management measures for other stocks**
 - 2.4.1 Bigeye, yellowfin and skipjack tunas (CMM 2016-01)**
 - 2.4.2 North Pacific striped marlin (CMM 2010-01)**
 - 2.4.3 Sharks (CMM 2010-07, CMM 2011-04, CMM 2012-04, CMM 2013-08 and CMM 2014-05)**
 - 2.4.4 Seabirds (CMM 2015-03)**
 - 2.4.5 Sea turtles (CMM 2008-03)**

AGENDA ITEM 3 REGIONAL OBSERVER PROGRAMME

AGENDA ITEM 4 VESSEL MONITORING SYSTEM

AGENDA ITEM 5 DATA

5.1 Review of the status of data and data gaps for northern stocks

AGENDA ITEM 6 COOPERATION WITH OTHER ORGANIZATIONS

6.1 ISC

6.2 IATTC

AGENDA ITEM 7 FUTURE WORK PROGRAMME

7.1 Work Programme for 2018-2020

AGENDA ITEM 8 OTHER MATTERS

8.1 Administrative arrangements for the Committee

8.1.1 Secretariat functions and costs

8.1.2 Rules of Procedure

8.2 Next meeting

8.3 Other business

**AGENDA ITEM 9 ADOPTION OF THE SUMMARY REPORT OF THE THIRTEENTH
REGULAR SESSION OF THE NORTHERN COMMITTEE AND
RECOMMENDATIONS TO THE COMMISSION**

AGENDA ITEM 10 CLOSE OF MEETING

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**Korea's statement on "East Sea" mentioned in its national report on the
implementation of CMM 2016-04**

Korea has been referring and currently refers the relevant body of water as "East Sea," which holds the longest history as a name for this particular body of water. In this regard, Korea maintains the referencing of the East Sea in its national report.

Unlike the claim made by the Japanese delegation, the international community has not ever agreed on the common name of this particular body of water. Rather, the UNCSTGN and the IHO recommend that when countries sharing a given geographical feature fail to agree on a common name, competing names should be concurrently used. The Korean delegation is also of the view that the NC is not an appropriate forum to discuss this matter and registers that neither Korea's nor Japan's position on this matter does not reflect the WCPFC's official position.

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Japan's statement on the Sea of Japan

The “Sea of Japan” is the only internationally established name for the sea area concerned.

The United Nations Secretariat has already officially confirmed its policy using the name “Sea of Japan” as the standard geographical term in official UN documents. In addition, governments of a number of countries including the U.S. recognize the name “Sea of Japan” as the official name for the sea area concerned.

The IHO Technical Resolution A.4.2.6 is intended to apply to geographical feature such as “a bay, a strait, channel or archipelago” as articulated in the resolution itself, and the Sea of Japan does not clearly fall under the categories of these features. Regarding the UNCSTGN Resolution III/20, it explicitly limits its scope to land features that are “under the sovereignty of more than one country or are divided among two or more countries.” It is therefore clear that the resolution does not apply to this case.

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**Results of the 2nd Joint IATTC-WCPFC NC working group meeting on the
management of Pacific bluefin tuna**

The second joint IATTC-WCPFC NC working group meeting on the management of PBF was held in Busan, Korea from August 28 - 31, 2017 as an informal meeting. WCPFC NC members, some IATTC members, and observers participated in the meeting. The main results and conclusions of the meeting are as follows. Participants supported this report to be forwarded to NC13 and IATTC for further discussion.

1) Designation of Co-chairs

M. Miyahara (Japan) and D. Lowman (USA) were elected co-chairs of the meeting.

2) Adoption of agenda

Adopted agenda is attached (Annex 1).

3) Consideration and development of rebuilding strategy and long-term precautionary management framework, including Emergency Rule (Item 7) and CDS (Item 8)

The Joint WG discussed the rebuilding strategy and long-term precautionary management framework based on proposals from Japan (NC13-DP-11) and the USA (NC13-DP-13). The Joint WG revised the Japanese proposal and agreed to support it as a conclusion of the meeting (Outcomes of the meeting: Annex 2). The Joint WG requested co-chairs to forward it to NC13 and IATTC for further consideration.

4) Review of current management measures in both IATTC and WCPFC

The Joint WG reviewed the existing management measures and concluded that no revision is necessary except for those to incorporate the establishment of possible harvest strategy mentioned 3) above.

5) Next meeting

The Joint WG confirmed the usefulness of the Joint Working Group between WCPFC NC and IATTC for the discussion on the management of PBF and supported its continuation. In order to enhance the effectiveness, it was suggested to hold the Joint Working Group meeting in conjunction with IATTC annual meeting as well.

The Joint WG agreed to hold the 3rd meeting of Joint WG in conjunction with NC14. Current co-chairs were requested to continue and to construct draft agenda for the next meeting. The Joint WG further agreed to request co-chairs to evaluate feasibility to hold the future Joint WG meeting in conjunction with IATTC annual meeting.

**Joint IATTC-WCPFC NC Working Group Meeting on the
Management of Pacific Bluefin Tuna**

AGENDA

1. Opening of the Meeting
2. Designation of Co-chair
3. Adoption of Agenda
4. Review of updated information on Pacific bluefin tuna provided by the ISC17 and recommendations from IATTC
5. Consideration and development of rebuilding strategy (second rebuilding target and timeline, etc.) and long-term precautionary management framework (management objectives, limit and target reference points, harvest control rules, etc.)
6. Review of current management measures in both IATTC and WCPFC
7. Emergency rule
8. Catch document scheme
9. Next meeting
10. Other business
11. Close of Meeting

**Joint IATTC-WCPFC NC Working Group Meeting on the
Management of Pacific Bluefin Tuna**

Outcomes of the 2nd Joint IATTC-WCPFC NC working group on the management of PBF

The Joint IATTC-WCPFC NC Working Group on the Management of PBF recommends that the IATTC and WCPFC NC consider incorporating the following provisions in their decisions:

1. Recruitment scenario used in Spawning Stock Biomass (SSB) projection

- (1) The low recruitment scenario (resampling from the relatively low recruitment period (1980-1989)) or the recent recruitment scenario (resampling from the last 10 years), whichever is lower, should be used for the ISC's SSB projections until 2024 or the SSB reaches the historical median (the median point estimate for 1952-2014 as specified by ISC), whichever is earlier.
- (2) The recruitment scenario to be used for the SSB projections after 2024 or the SSB has reached the historical median should be tentatively the average recruitment scenario (resampling from the entire recruitment period).
- (3) ISC will be requested to periodically evaluate whether the scenarios in paragraph (1) and (2) are reasonable given current conditions and make recommendation on whether a different scenario should be used. If ISC recommends a different scenario, this should be considered.

2. Management until reaching the historical median

- (1) The management objective is to rebuild the SSB to the historical median by 2024 with at least 60% probability.
- (2) For this purpose, interim harvest control rules below should be applied based on the results of stock assessments and SSB projections to be conducted by ISC.
 - (a) If the SSB projection indicates that the probability of achieving the historical median by 2024 is less than 60%, management measures should be modified to increase it to at least 60%. Modification of management measures may be (i) a reduction (in %) in the catch limit for fish smaller than 30 kg (hereinafter called "small fish") or (ii) a transfer of part of the catch limit for small fish to the catch limit for fish 30 kg or larger (hereinafter called "large fish"). For this purpose, ISC will be requested, if necessary, to provide different combinations of these two measures so as to achieve 60% probability.
 - (b) If the SSB projection indicates that the probability of achieving the historical median by 2024 is at 75% or larger, the IATTC and WCPFC may increase their catch limits as long as the probability is maintained at 70% or larger, and the probability of reaching the second rebuilding target by the agreed deadline

remains at least 60%. For this purpose, ISC will be requested, if necessary, to provide relevant information on potential catch limit increases.

3. Management after reaching the historical median

- (1) The management objective after reaching the historical median should be to rebuild the SSB to $20\%SSB_{F=0}$ ¹ within 10 years of reaching the historical median or by 2034, whichever is earlier, with at least 60% probability. However, if (i) the SSB reaches the historical median earlier than 2024; (ii) ISC recommends a recruitment scenario lower than the average recruitment scenario; and (iii) the SSB projections indicate that the next rebuilding target will not be achieved within 10 years with at least 60% probability under the rebuilding plan in place at that time, the deadline for rebuilding to $20\%SSB_{F=0}$ may be extended to 2034 at the latest. Also, if the joint working group recommends that $20\%SSB_{F=0}$ is not appropriate as the second rebuilding target, taking into account scientific advice from ISC, IATTC or WCPFC SC and socioeconomic factors, another objective may be established.
- (2) Harvest control rules to be applied during this period should be decided, taking into account the implementation of the interim harvest control rules referred to in paragraph 2. (2).

4. Management after reaching 20%SSB_{F=0}

- (1) ISC is requested to start the work to develop MSE for Pacific Bluefin Tuna from 2019 and finalize it with a goal of completing by 2024. During this MSE development period until 2024, ISC will conduct assessments in 2018, 2020 and 2022.
- (2) The joint working group will start to discuss in 2018 and aim to finalize no later than 2019 a guideline for MSE including at least one candidate Target Reference Point (TRP), two candidate Limit Reference Points (LRPs) and candidate harvest control rules (HCRs) to be provided to ISC. Those candidate TRP, LRPs and HCRs will be tested and changed if appropriate during the MSE development process.
- (3) For preparation of the joint working group meeting in 2019, ISC will be requested to organize workshops in early 2018 and 2019 to support the identification of specific management objectives including level of risks and timelines. The workshops will consist of managers, scientists and stakeholders, taking into account any recommendation of the joint working group, which should be a relatively small number of representatives as was in the albacore WS.
- (4) At least two experts will be identified and additional funds are encouraged to be provided for ISC MSE work for Pacific Bluefin Tuna.

5. Emergency Rule

In order to cope with the adverse effects on the rebuilding of the stock due to drastic drops of recruitment:

¹ $SSB_{F=0}$ is the expected spawning stock biomass under average recruitment conditions without fishing.

- (1) The joint working group will annually review all the available data and information including recruitment data provided by ISC and National Reports.
- (2) ISC will be requested to conduct in 2019, and periodically thereafter as resources permit and if drops in recruitment are detected, projections to see if any additional measure is necessary to achieve the initial rebuilding target by 2024 with at least 60% probability.

6. Catch Documentation Scheme

Joint WG agreed the draft concept of Catch Documentation Scheme (CDS, Appendix A) to be forwarded to WCPFC and IATTC for further consideration.

Development of a Catch Document Scheme for Pacific Bluefin Tuna

Background

At the 1st joint working group meeting between NC and IATTC, held in Fukuoka, Japan from August 29 to September 1, 2016, participants supported to advance the work on the Catch Documentation Scheme (CDS) in the next joint working group meeting, in line with the development of overarching CDS framework by WCPFC and taking into account of the existing CDS by other RFMOs.

1. Objective of the Catch Document Scheme

The objective of CDS is to combat IUU fishing for Pacific Bluefin Tuna (PBF) by providing a means of preventing PBF and its products identified as caught by or originating from IUU fishing activities from moving through the commodity chain and ultimately entering markets.

2. Use of electronic scheme

Whether CDS will be a paper based scheme, an electronic scheme or a gradual transition from a paper based one to an electronic one should be first decided since the requirement of each scheme would be quite different.

3. Basic elements to be included in the draft conservation and management measure (CMM)

It is considered that at least the following elements should be considered in drafting CMM.

- (1) Objective
- (2) General provision
- (3) Definition of terms
- (4) Validation authorities and validating process of catch documents and re-export certificates
- (5) Verification authorities and verifying process for import and re-import
- (6) How to handle PBF caught by artisanal fisheries
- (7) How to handle PBF caught by recreational or sport fisheries
- (8) Use of tagging as a condition for exemption of validation
- (9) Communication between exporting members and importing members
- (10) Communication between members and the Secretariat
- (11) Role of the Secretariat
- (12) Relationship with non-members
- (13) Relationship with other CDSs and similar programs
- (14) Consideration to developing members
- (15) Schedule for introduction
- (16) Attachment
 - (i) Catch document forms
 - (ii) Re-export certificate forms
 - (iii) Instruction sheets for how to fill out forms
 - (iv) List of data to be extracted and compiled by the Secretariat

4. Work plan

The following schedule may need to be modified, depending on the progress on the WCPFC CDS for tropical tunas.

- 2017 The joint working group will submit this concept paper to the NC and IATTC for endorsement. NC will send the WCPFC annual meeting the recommendation to endorse the paper.
- 2018 The joint working group will hold a technical meeting, preferably around its meeting, to materialize the concept paper into a draft CMM. The joint working group will report the progress to the WCPFC via NC and the IATTC, respectively.
- 2019 The joint working group will hold a second technical meeting to improve the draft CMM. The joint working group will report the progress to the WCPFC via NC and the IATTC, respectively.
- 2020 The joint working group will hold a third technical meeting to finalize the draft CMM. Once it is finalized, the joint working group will submit it to the NC and the IATTC for adoption. The NC will send the WCPFC the recommendation to adopt it.

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Harvest Strategy for Pacific Bluefin Tuna Fisheries

Harvest Strategy 2017-XX

Introduction and scope

This harvest strategy has been prepared in accordance with the Commission's Conservation and Management Measure on Establishing a Harvest Strategy for Key Fisheries and Stocks in the Western and Central Pacific Ocean.

Although the provisions of this harvest strategy are expressed in terms of a single stock, they may be applied to multiple stocks as appropriate and as determined by the Northern Committee.

1. Management objectives

The management objectives are, first, to support thriving Pacific bluefin tuna fisheries across the Pacific Ocean while recognizing that the management objectives of the WCPFC are to maintain or restore the stock at levels capable of producing maximum sustainable yield, second, to maintain an equitable balance of fishing privileges among CCMs and, third, to seek cooperation with IATTC to find an equitable balance between the fisheries in the western and central Pacific Ocean (WCPO) and those in the eastern Pacific Ocean (EPO).

2. Reference points

Because steepness in the stock-recruitment relationship is not well known but the key biological and fishery variables are reasonably well estimated,² the stock of PBF is to be treated as a Level 2 stock under the Commission's hierarchical approach for setting biological limit reference points.

2.1 Rebuilding targets

Initial rebuilding target: The initial rebuilding target for the PBF stock size is the median SSB estimated for the period 1952 through 2014, to be reached by 2024 with at least 60% probability.

Recruitment scenario during initial rebuilding period: The low recruitment scenario (resampling from the relatively low recruitment period (1980-1989)) or the recent recruitment scenario (resampling

² See the information provided by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (WCPFC-NC9-2013/IP-03) in response to a request made by the Northern Committee at its Eighth Regular Session (Attachment F of the report of NC8).

from the last 10 years), whichever is lower, will be used for the ISC's SSB projections until 2024 or until the SSB reaches the initial rebuilding target, whichever is earlier.

The ISC is requested to periodically evaluate whether the recruitment scenario used during the initial rebuilding period is reasonable given current conditions, and to make recommendations on whether a different scenario should be used. If ISC recommends a different scenario, this will be considered by the NC.

Second rebuilding target: The second rebuilding target for the PBF stock size is $20\%SSB_{F=0}$ ³, to be reached by 2034, or 10 years after reaching the initial rebuilding target, whichever is earlier, with at least 60% probability.

However, if: (1) the SSB reaches the initial rebuilding target earlier than 2024; (2) ISC recommends a recruitment scenario lower than the average recruitment scenario; and (3) the SSB projections indicate that the second rebuilding target will not be achieved on this schedule, the deadline for rebuilding may be extended to 2034 at the latest.

Also, if there is a recommendation from the Northern Committee that $20\%SSB_{F=0}$ is not appropriate as the second rebuilding target, taking into account consideration from IATTC, scientific advice from ISC, IATTC or WCPFC SC, and socioeconomic factors, another objective may be established.

Recruitment scenario during second rebuilding period: After the initial rebuilding target is reached and until the second rebuilding target is reached, the recruitment scenario to be used for the SSB projections will tentatively be the average recruitment scenario (resampling from the entire recruitment period).

The ISC is requested to periodically evaluate whether the recruitment scenario used during the second rebuilding period is reasonable given current conditions, and to make recommendations on whether a different scenario should be used. If ISC recommends a different scenario, this will be considered by the NC.

2.2 Development of reference points

The Northern Committee will develop more refined management objectives as well as limit reference point(s) and target reference point(s) through MSE process specified in Section 6.

3. Acceptable levels of risk

Until the stock is rebuilt, the Northern Committee will recommend conservation and management measures as needed to ensure rebuilding in accordance with the probabilities specified in sections 2.1 and 5 for each of the two rebuilding targets.

Once the stock is rebuilt, in accordance with Article 6.1(a) of the Convention, the Northern Committee will recommend conservation and management measures as needed to ensure that any target reference point(s) (once adopted) are achieved on average in the long term, and ensure that the risk of the stock size declining below the B-limit (once adopted) is very low.⁴

³ $SSB_{F=0}$ is the expected spawning stock biomass under average recruitment conditions without fishing.

⁴ WCPFC13 agreed that any risk level greater than 20 percent to be inconsistent with the limit reference point related principles in UNFSA (as references in Article 6 of the Convention) including that the risk of breaching limit reference points be very low.

4. Monitoring strategy

The ISC will periodically evaluate the stock size and exploitation rate with respect to the established reference points and the report will be presented to the Scientific Committee. Until 2024, while the MSE is being developed (see section 6), the ISC is requested to conduct stock assessments in 2018, 2020 and 2022.

In order to cope with the adverse effects on the rebuilding of the stock due to drastic drops of recruitment: (1) all the available data and information will be reviewed annually, including recruitment data provided by the ISC and in National Reports; and (2) the ISC is requested to conduct in 2019, and periodically thereafter as resources permit and if drops in recruitment are detected, projections to see if any additional measure is necessary to achieve the initial rebuilding target by 2024 with at least 60% probability.

5. Decision rules

Harvest controls rules during initial rebuilding period: The interim harvest control rules below will be applied based on the results of stock assessments and SSB projections to be conducted by ISC.

(a) If the SSB projection indicates that the probability of achieving the initial rebuilding target by 2024 is less than 60%, management measures will be modified to increase it to at least 60%.

Modification of management measures may be (1) a reduction (in %) in the catch limit for fish smaller than 30 kg (hereinafter called “small fish”) or (2) a transfer of part of the catch limit for small fish to the catch limit for fish 30 kg or larger (hereinafter called “large fish”). For this purpose, ISC will be requested, if necessary, to provide different combinations of these two measures so as to achieve 60% probability.

(b) If the SSB projection indicates that the probability of achieving the initial rebuilding target by 2024 is at 75% or larger, the WCPFC may increase their catch limits as long as the probability is maintained at 70% or larger, and the probability of reaching the second rebuilding target by the agreed deadline remains at least 60%. For this purpose, ISC will be requested, if necessary, to provide relevant information on potential catch limit increases.

Harvest controls rules during second rebuilding period: Harvest control rules to be applied during the second rebuilding period will be decided, taking into account the implementation of the interim harvest control rules applied during the initial rebuilding period.

The Northern Committee will, through MSE development process, develop decision rules related to the limit reference points once adopted including for the case of their being breached.

6. Performance evaluation

Until the stock is rebuilt, the Northern Committee will work with the ISC and the Scientific Committee and consult with the IATTC to identify and evaluate the performance of candidate rebuilding strategies with respect to the rebuilding targets, schedules, and probabilities.

The ISC is requested to start the work to develop a management strategy evaluation (MSE) for Pacific bluefin tuna fisheries in 2019 and have a goal of completing it by 2024.

To support development of the MSE, ISC is encouraged to identify at least two experts and NC members are encouraged to provide additional funds for the ISC’s work on the MSE.

The Joint WG will start to discuss in 2018, and aim to finalize no later than 2019, guidelines for the MSE, including at least one candidate long-term target reference point (TRP), two candidate limit reference

points (LRPs) and candidate harvest control rules (HCRs), which will be provided to the ISC. Those candidate TRPs, LRPs and HCRs will be tested and changed if appropriate during the MSE development process.

In preparation for the Joint WG meeting in 2019, the ISC is requested to organize workshops in early 2018 and 2019 to support the identification of specific management objectives, including level of risks and timelines. The workshops will include managers, scientists and stakeholders, taking into account any recommendations of the Joint WG, and the number of representatives should be relatively small, as it was for the MSE workshop for North Pacific albacore.

In evaluating the performance of candidate target reference points, limit reference points, and harvest control rules, the Northern Committee, in consultation with the ISC and the Scientific Committee, should consider the following criteria:

1. Probability of achieving each of the rebuilding targets within each of the rebuilding periods (if applicable).
2. Time expected to achieve each of the rebuilding targets (if applicable).
3. Expected annual yield, by fishery.
4. Expected annual fishing effort, by PBF-directed fishery.
5. Inter-annual variability in yield and fishing effort, by fishery.
6. Probabilities of SSB falling below the B-limit and the historical lowest level.
7. Probability of fishing mortality exceeding F_{MSY} or an appropriate proxy, and other relevant benchmarks.
8. Expected proportional fishery impact on SSB, by fishery and by WCPO fisheries and EPO fisheries.

Recognizing that developing the operating model and other aspects of the MSE will take time and additional resources, and might require further dialogue between the Northern Committee, the ISC, and the IATTC, while the MSE is in development the ISC is requested to perform this work using the best means at its disposal.

**The Commission for the Conservation and Management of
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**Northern Committee
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Conservation and Management Measure for Pacific Bluefin Tuna

Conservation and Management Measure 2017-XX

The Western and Central Pacific Fisheries Commission (WCPFC):

Recognizing that WCPFC6 adopted Conservation and Management Measure for Pacific bluefin tuna (CMM 2009-07) and the measure was revised six times since then (CMM 2010-04, CMM 2012-06, CMM 2013-09, CMM 2014-04, CMM 2015-04 and CMM 2016-04) based on the conservation advice from the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) on this stock;

Noting with concern the latest stock assessment provided by ISC Plenary Meeting in July 2016, indicating the following:

- (1) SSB fluctuated throughout the assessment period (1952–2014), (2) SSB steadily declined from 1996 to 2010, and (3) the decline appears to have ceased since 2010, although the stock remains near the historic low (2.6% of unfished SSB);
- The 2014 estimated recruitment was relatively low, and the average recruitment for the last five years may have been below the historical average;
- The fishery exploitation rate in 2011-2013 exceeded all biological reference points evaluated by the ISC except FMED and FLOSS.
- Since the early 1990s, the WCPO purse seine fisheries, in particular those targeting small fish (age 0-1) have had an increasing impact on the spawning stock biomass, and in 2014 had a greater impact than any other fishery group.
- The projection results indicate that: (1) the probability of SSB recovering to the initial rebuilding target (SSBMED1952-2014) by 2024 is 69% or above the level prescribed in the WCPFC CMM 2015-04 if low recruitment scenario is assumed and WCPFC CMM 2015-04 and IATTC Resolution C-14-06 continue in force and are fully implemented; and (2) a 10% reduction in the catch limit for fish smaller than 30 kg would have a larger effect on recovery than a 10% reduction in the catch limit for fish larger than 30 kg; and
- Catching a high number of smaller juvenile fish can have a greater impact on future spawning stock biomass than catching the same weight of larger fish;

Further recalling that paragraph (4), Article 22 of the WCPFC Convention, which requires cooperation between the Commission and the IATTC to reach agreement to harmonize CMMs for fish stocks such as Pacific bluefin tuna that occur in the convention areas of both organizations;

Adopts, in accordance with Article 10 of the WCPFC Convention that:

General Provision

1. This conservation and management measure has been prepared to implement the Harvest Strategy for Pacific Bluefin Tuna Fisheries, and the Northern Committee shall periodically review and recommend revisions to this measure as needed to implement the Harvest Strategy.

Management measures

2. CCMs shall take measures necessary to ensure that:

(1) Total fishing effort by their vessel fishing for Pacific bluefin tuna in the area north of the 20° N shall stay below the 2002–2004 annual average levels.

(2) All catches of Pacific bluefin tuna less than 30 kg shall be reduced to 50% of the 2002–2004 annual average levels. Any overage of the catch limit shall be deducted from the catch limit for the following year.

3. CCMs shall take measures necessary to ensure that all catches of Pacific Bluefin tuna 30kg or larger shall not be increased from the 2002-2004 annual average levels⁵. Any overage of the catch limit shall be deducted from the catch limit for the following year. However, in 2017, 2018, 2019, and 2020 CCMs may use part of the catch limit for Pacific bluefin tuna smaller than 30 kg stipulated in paragraph 2 (2) above to catch Pacific bluefin tuna 30 kg or larger in the same year. In this case, the amount of catch 30 kg or larger shall be counted against the catch limit for Pacific bluefin tuna smaller than 30 kg. CCMs shall not use the catch limit for Pacific bluefin tuna 30 kg or larger to catch Pacific bluefin tuna smaller than 30 kg. The ISC is requested to review, in its work referred to in Section 5 of Harvest Strategy, the implications of this special provision in terms of PBF mortality and stock rebuilding probabilities in 2020. Based on that review, in 2020 the Northern Committee will determine whether it should be continued past 2020, and if so, recommend changes to the CMM as appropriate.

4. CCMs shall report their 2002–2004 baseline fishing effort and <30 kg and >=30 kg catch levels for 2013 and 2014, by fishery, as referred to in paragraphs 2 and 3, to the Executive Director by 31 July 2015. CCMs shall also report to the Executive Director by 31 July each year their fishing effort and <30 kg and >=30 kg catch levels, by fishery, for the previous 3 year, accounting for all catches, including discards. The Executive Director will compile this information each year into an appropriate format for the use of the Northern Committee.

5. CCMs shall intensify cooperation for effective implementation of this CMM, including juvenile catch reduction.

6. CCMs, in particular those catching juvenile Pacific bluefin tuna, shall take measures to monitor and obtain prompt results of recruitment of juveniles each year.

7. Consistent with their rights and obligations under international law, and in accordance with domestic laws and regulations, CCMs shall, to the extent possible, take measures necessary to prevent commercial transaction of Pacific bluefin tuna and its products that undermine the effectiveness of this CMM, especially measures prescribed in the paragraph 2 and 3 above.

⁵ CCMs with a base line catch of 10 t or less may increase its catch as long as it does not exceed 10 t.

CCMs shall cooperate for this purpose.

8. CCMs shall cooperate to establish a catch documentation scheme (CDS) to be applied to Pacific bluefin tuna in accordance with the Attachment of this CMM.

9. CCMs shall also take measures necessary to strengthen monitoring and data collecting system for Pacific bluefin tuna fisheries and farming in order to improve the data quality and timeliness of all the data reporting;

10. CCMs shall report to Executive Director by 31 July annually measures they used to implement paragraphs 2, 3, 4, 6, 7, 9 and 12 of this CMM. CCMs shall also monitor the international trade of the products derived from Pacific bluefin tuna and report the results to Executive Director by 31 July annually. The Northern Committee shall annually review those reports CCMs submit pursuant to this paragraph and if necessary, advise a CCM to take an action for enhancing its compliance with this CMM.

11. The WCPFC Executive Director shall communicate this Conservation Management Measure to the IATTC Secretariat and its contracting parties whose fishing vessels engage in fishing for Pacific bluefin tuna in EPO and request them to take equivalent measures in conformity with this CMM.

12. To enhance effectiveness of this measure, CCMs are encouraged to communicate with and, if appropriate, work with the concerned IATTC contracting parties bilaterally.

13. The provisions of paragraphs 2 and 3 shall not prejudice the legitimate rights and obligations under international law of those small island developing State Members and participating territories in the Convention Area whose current fishing activity for Pacific bluefin tuna is limited, but that have a real interest in fishing for the species, that may wish to develop their own fisheries for Pacific bluefin tuna in the future.

14. The provisions of paragraph 13 shall not provide a basis for an increase in fishing effort by fishing vessels owned or operated by interests outside such developing coastal State, particularly Small Island Developing State Members or participating territories, unless such fishing is conducted in support of efforts by such Members and territories to develop their own domestic fisheries.

Attachment

Development of a Catch Document Scheme for Pacific Bluefin Tuna

Background

At the 1st joint working group meeting between NC and IATTC, held in Fukuoka, Japan from August 29 to September 1, 2016, participants supported to advance the work on the Catch Documentation Scheme (CDS) in the next joint working group meeting, in line with the development of overarching CDS framework by WCPFC and taking into account of the existing CDS by other RFMOs.

1. Objective of the Catch Document Scheme

The objective of CDS is to combat IUU fishing for Pacific Bluefin Tuna (PBF) by providing a means of preventing PBF and its products identified as caught by or originating from IUU fishing activities from moving through the commodity chain and ultimately entering markets.

2. Use of electronic scheme

Whether CDS will be a paper based scheme, an electronic scheme or a gradual transition from a paper based one to an electronic one should be first decided since the requirement of each scheme would be quite different.

3. Basic elements to be included in the draft conservation and management measure (CMM)

It is considered that at least the following elements should be considered in drafting CMM.

- (17) Objective
- (18) General provision
- (19) Definition of terms
- (20) Validation authorities and validating process of catch documents and re-export certificates
- (21) Verification authorities and verifying process for import and re-import
- (22) How to handle PBF caught by artisanal fisheries
- (23) How to handle PBF caught by recreational or sport fisheries
- (24) Use of tagging as a condition for exemption of validation
- (25) Communication between exporting members and importing members
- (26) Communication between members and the Secretariat
- (27) Role of the Secretariat
- (28) Relationship with non-members
- (29) Relationship with other CDSs and similar programs
- (30) Consideration to developing members
- (31) Schedule for introduction
- (32) Attachment
 - (i) Catch document forms
 - (ii) Re-export certificate forms
 - (iii) Instruction sheets for how to fill out forms
 - (iv) List of data to be extracted and compiled by the Secretariat

4. Work plan

The following schedule may need to be modified, depending on the progress on the WCPFC CDS for tropical tunas.

- | | |
|------|--|
| 2017 | The joint working group will submit this concept paper to the NC and IATTC for endorsement. NC will send the WCPFC annual meeting the recommendation to endorse the paper. |
| 2018 | The joint working group will hold a technical meeting, preferably around its meeting, to materialize the concept paper into a draft CMM. The joint working group will report the progress to the WCPFC via NC and the IATTC, respectively. |
| 2019 | The joint working group will hold a second technical meeting to improve the draft |

CMM. The joint working group will report the progress to the WCPFC via NC and the IATTC, respectively.

2020 The joint working group will hold a third technical meeting to finalize the draft CMM. Once it is finalized, the joint working group will submit it to the NC and the IATTC for adoption. The NC will send the WCPFC the recommendation to adopt it.

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Interim Harvest Strategy for North Pacific Albacore Fishery

Harvest Strategy 2017-XX

This Interim Harvest Strategy replaces the “precautionary management framework for north pacific albacore” adopted at the 11th regular session of the Commission, which is based on the recommendation of the Northern Committee at its 10th regular session.

1. Interim management objective

The management objective for the North Pacific albacore fishery is to maintain the biomass, with reasonable variability, around its current level in order to allow recent exploitation levels to continue and with a low risk of breaching the limit reference point.

2. Biological reference points

Based on ISC’s stock assessment advice and following the hierarchical approach adopted by the Commission, North Pacific albacore is to be treated as a Level 2 stock. The following is based on an average recruitment scenario:

- The limit reference point (LRP) for this stock is established at $20\%SSB_{current_{F=0}}$.

This LRP is consistent with the Annex II of the UN Fish Stocks Agreement (UNFSA) and recent WCPFC decisions on LRPs for the three tropical tuna species and South Pacific albacore, where $20\%SSB_{current_{F=0}}$ was adopted. If this point is breached, management actions will be taken to return the stock to a predetermined level as outlined in the subsequent section on Decision Rules.

- The target reference point (TRP) for this stock will be determined following a comprehensive analysis under a management strategy evaluation (MSE) approach as outlined in section 4 on “Future Work”. Historical fishing activity, anticipated fishing activity, and the source of increased fishing mortality will also be considered when evaluating a suitable TRP. Socioeconomic factors, as per UNFSA Article 6.3.c., will be further considered. The existing conservation and management measure (CMM) for the stock (WCPFC 2005-03) establishes through limits on current effort an overall management regime for the stock.

3. Decision rules

NC recommends a management strategy for the stock that ensures that the risk of the biomass decreasing below the LRP is low.

LRP rule: In the event that, based on information from ISC, the spawning stock size decreases below the LRP at any time, NC will, at its next regular session or intersessionally if warranted, adopt a reasonable timeline, but no longer than 10 years, for rebuilding the spawning stock to at least the LRP and recommend a CMM that can be expected to achieve such rebuilding within that timeline. NC will take into account historical fishing activity and the source of increased fishing mortality when developing management strategies to rebuild the stock, including in establishing effort reductions. NC will further consider socioeconomic factors, as per UNFSA Article 6.3.c., as well as which NC members, if any, contributed to exceeding the LRP.

4. Future work

This framework may be periodically reviewed and revised. To support such revisions, NC endorses the ongoing development and implementation of an MSE for the stock and fishery, which would yield new information that would enhance the robustness of this framework.

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Work Programme for the Northern Committee

Harvest Strategy 2017-XX

Work areas	Objectives	1-year tasks		
	2018–2020	2018	2019	2020
<p>1. Northern stocks a. Monitor status; consider management action</p>	<p>Review status and take action as needed for: North Pacific albacore Tasks (A) Review members' reports on their implementation of CMM 2005-03. (B) Implement the Interim Harvest Strategy, including: (1) monitor if LRP is breached; (2) continue to work to establish TRP and other elements of harvest strategies, if appropriate based on MSE; (3) recommend any changes to CMM 2005-03.</p>	<p>Review the compiled members' reports and identify and rectify shortcomings. Continue to support ISC MSE work to complete Task (B)(2). Recommend any necessary changes to CMM2005-03.</p>	<p>Review the compiled members' reports and identify and rectify shortcomings. Continue to support ISC MSE work to complete Task (B)(2). Recommend any necessary changes to CMM 2005-03 (Task(B)(3))</p>	<p>Review the compiled members' reports and identify and rectify shortcomings. Continue to support ISC MSE work to complete Task (B)(2). Obtain the new assessment results from ISC and recommend any necessary changes to CMM 2005-03 (Task(B)(3)).</p>

Work areas	Objectives	1-year tasks		
	2018–2020	2018	2019	2020
	<p><u>Pacific bluefin tuna</u> Tasks</p> <p>(A) Review members’ reports on their implementation of CMM on PBF.</p> <p>(B) Implement the Harvest Strategy including: (1) monitor if initial rebuilding target will be achieved; (2) continue to work to establish LRP, TRP and other elements of harvest strategies, if appropriate based on MSE; (3) recommend any changes to CMM; (4) support ISC for MSE development.</p>	<p>Review the compiled members’ reports and identify and rectify shortcomings.</p> <p>Obtain the assessment and other work results from ISC and recommend any necessary changes to CMM on PBF.</p> <p>Support ISC workshop for MSE development.</p> <p>Develop CDS based on the inputs from members.</p>	<p>Review the compiled members’ reports and identify and rectify shortcomings.</p> <p>Discuss the results of new work of ISC in accordance with Harvest Strategy and recommend any necessary changes to CMM on PBF.</p> <p>Finalize guideline to ISC for MSE development</p> <p>Develop CDS based on the inputs from members.</p>	<p>Review the compiled members’ reports and identify and rectify shortcomings.</p> <p>Obtain the assessment and other work results from ISC and recommend any necessary changes to CMM on PBF.</p> <p>Support ISC for MSE development</p> <p>Complete CDS based on the inputs from members.</p>
	<p><u>Swordfish</u> Establish a precautionary-</p>	Obtain and review a full	Prepared based on the	Prepared based on the

Work areas	Objectives	1-year tasks		
	2018–2020	2018	2019	2020
b. Data	<p>approach based management framework recognizing CMM2014-06, including: (1) recommend appropriate reference points; (2) agreeing in advance to actions that will be taken in the event each of the particular limit reference points is breached (decision rules) and other elements of harvest strategies, if appropriate.</p> <p><u>Striped marlin</u> (if agreed on by the Scientific Committee and Commission).</p>	<p>assessment and consider appropriate management action.</p> <p>Finalize interim management objective and reference points and establish CMM.</p>	developments in 2018.	developments in 2018.
	<p>Achieve timely submission of complete data needed for assessments, formulation of measures, and review of Commission decisions.</p> <p>Consider systems to validate catch data</p>	<p>CCMs participating in the NC submit complete data on fisheries for northern stocks to the Commission.</p> <p>Encourage submission to Commission of Pacific bluefin tuna, North Pacific albacore, North Pacific striped marlin, and swordfish data from all CCMs and make available to ISC.</p>	<p>CCMs participating in the NC submit complete data on fisheries for northern stocks to the Commission.</p> <p>Encourage submission to Commission of Pacific bluefin tuna, North Pacific albacore, North Pacific striped marlin and swordfish data from all CCMs and make available to ISC.</p>	<p>CCMs participating in the NC submit complete data on fisheries for northern stocks to the Commission.</p> <p>Encourage submission to Commission of Pacific bluefin tuna, North Pacific albacore, North Pacific striped marlin and swordfish data from all CCMs and make available to ISC.</p>
c. Scientific support	Provide support for scientific studies.	Encourage voluntary contribution for NC's list of priority scientific projects,		

Work areas	Objectives	1-year tasks		
	2018–2020	2018	2019	2020
2. Non-target, associated, dependent species a. Seabirds	Consider appropriate implementation of methods to minimize catch and mortality.	including close-kin analysis.		
		Review implementation of CMM-2015-03 in the northern area.	Review implementation of CMM-2015-03 in the northern area.	Review implementation of CMM-2015-03 in the northern area.
		Review mitigation research results and consider management action.	Review mitigation research results and consider management action.	Review mitigation research results and consider management action.
b. Sea turtles	Consider appropriate implementation of methods to minimize catch and mortality.	Review mitigation research results and consider management action.	Review mitigation research results and consider management action.	Review mitigation research results and consider management action.
c. Sharks	Consider appropriate implementation for CMM-2010-07 in the northern area.	Review scientific advice from ISC, if any, and consider management options on two shark species (blue shark and short fin mako shark). Encourage submission of all shark data to ISC.	Review scientific advice from ISC, if any, and consider management options on two shark species (blue shark and short fin mako shark). Encourage submission of all shark data to ISC.	Review scientific advice from ISC, if any, and consider management options on two shark species (blue shark and short fin mako shark). Encourage submission of all shark data to ISC.
3. Review effectiveness of decisions	Annually review effectiveness of conservation and management measures and resolutions applicable to fisheries for northern stocks.	Review effectiveness of North Pacific albacore measure (CMM 2005-03), including members' reports on their interpretation and implementation of fishing effort control.	Review effectiveness of North Pacific albacore measure (CMM 2005-03), including members' reports on their interpretation and implementation of fishing effort control.	Review effectiveness of North Pacific albacore measure (CMM 2005-03), including members' reports on their interpretation and implementation of fishing effort control.
		Review effectiveness of Pacific bluefin tuna measure.	Review effectiveness of Pacific bluefin tuna measure.	Review effectiveness of Pacific bluefin tuna measure.
4. ROP (Paragraph 9, Attachment C of CMM2007-01)		Review implementation of ROP for fishing vessels operating in north of 20°N.	Review implementation of ROP for fishing vessels operating in north of 20°N.	Review implementation of ROP for fishing vessels operating in north of 20°N.

Work areas	Objectives	1-year tasks		
	2018–2020	2018	2019	2020
<p>5. Cooperation with other organizations</p> <p>a. ISC</p> <p>b. IATTC</p>	<p>Following Article 22.4, consult to facilitate consistent management measures throughout the respective ranges of the northern stocks.</p>	<p>Consider action to support ISC.</p> <p>Have consultation to maintain consistent measures for North Pacific albacore and Pacific bluefin tuna.</p> <p>Hold a joint working group meeting on PBF management.</p>	<p>Consider action to support ISC.</p> <p>Have consultation to maintain consistent measures for North Pacific albacore and Pacific bluefin tuna.</p>	<p>Consider action to support ISC.</p> <p>Have consultation to maintain consistent measures for North Pacific albacore and Pacific bluefin tuna.</p>

