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## OUTCOMES OF THE 18<sup>th</sup> SESSION OF THE COMMISSION

PREPARED BY: IOTC SECRETARIAT, 12 SEPTEMBER 2014

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### PURPOSE

To inform participants at the 10<sup>th</sup> Working Party on Ecosystems and Bycatch (WPEB10) of the decisions and requests made by the Commission at its 18<sup>th</sup> Session, held from 1–5 June 2014, specifically relating to the work of the WPEB.

### BACKGROUND

At the 18<sup>th</sup> Session, the Commission **CONSIDERED** and **ADOPTED** 7 proposals as Conservation and Management Measures (7 in total consisting of 6 Resolutions and 1 Recommendation), as detailed below:

#### Resolutions

- Resolution 14/01 *On the removal of obsolete Conservation and Management Measures*
- Resolution 14/02 *For the conservation and management of tropical tunas stocks in the IOTC area of competence*
- Resolution 14/03 *On enhancing the dialogue between fisheries scientists and managers*
- Resolution 14/04 *Concerning the IOTC record of vessels authorised to operate in the IOTC area of competence*
- Resolution 14/05 *Concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information*
- Resolution 14/06 *On establishing a programme for transshipment by large-scale fishing vessels*

#### Recommendations

- Recommendation 14/07 *To standardise the presentation of scientific information in the annual Scientific Committee report and in Working Party reports*

Pursuant to Article IX.4 of the IOTC Agreement, the above mentioned Conservation and Management Measures shall become binding on Members, 120 days from the date of the notification communicated by the Secretariat in IOTC Circular 2014–60 (10 June 2014, i.e. 8 October 2014).

### DISCUSSION

The Commission also made a number of general comments and requests on the recommendations made by the Scientific Committee in 2013, which have relevance for the WPEB as follows (paragraph numbers refer to the report of the Commission (IOTC–2014–S18–R):

The Commission addressed the list of recommendations made by the SC16 ([Appendix V](#)) from its 2013 report (IOTC–2013–SC16–R) that related specifically to the Commission. The Commission **ENDORSED** the list of recommendations, taking into account the range of issues outlined in this Report (S18) and incorporated within adopted Conservation and Management Measures. (para. 10 of the S18 report)

### Sharks

The Commission **NOTED** that the stock status of all shark species is uncertain, and in December 2013 the IOTC Scientific Committee recommended that a detailed multiyear shark research program be prepared by a small group of shark experts and the IOTC Secretariat, to further advance, detail and propose an Indian Ocean Shark multi-Year Program (IO–ShYP) for finalisation at the next WPEB meeting (see SC recommendation SC16.33). The main objective of the IO–ShYP will be to “*promote cooperation and coordination among IOTC researchers, to improve the quality of the scientific advice on sharks provided to the Commission, namely by conducting quantitative stock assessments for selected species by 2016, and to better assess the impact on shark stocks of the current IOTC Conservation and Management Measures.*” (para. 18 of the S18 report)

The Commission **NOTED** that the IO–ShYP01 was held in Olhão, Portugal from 14 to 16 May 2014, and that a detailed workplan will be submitted to the WPEB later this year. (para. 19 of the S18 report)

## Status of development and implementation of National Plans of Action for seabirds and sharks, and implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations

The Commission **AGREED** with the request from the Scientific Committee that all CPCs without an NPOA-Sharks and/or NPOA-Seabirds expedite the development and implementation of a NPOA, and to report progress to the WPEB and SC in 2014, recalling that NPOA-Sharks are a framework that should facilitate estimation of shark catches, and development and implementation of appropriate management measures, which should also enhance the collection of bycatch data and compliance with IOTC Resolutions. (para. 36 of the S18 report)

### On data, including bycatch and discards

**NOTING** that the information on retained catches and discards of sharks contained in the IOTC database remains very incomplete for most fleets despite their mandatory reporting status, and that catch-and-effort as well as size data are essential to assess the status of shark stocks, the Commission **REQUESTED** that all CPCs collect and report catches of sharks (including historical data), catch-and-effort and length frequency data on sharks, as per IOTC Resolutions, so that more detailed analysis can be undertaken for the next WPEB meeting. (para. 39 of the S18 report)

The Commission **NOTED** some minor improvements in the quantity of fisheries statistics available to the SC and its Working Parties in 2013 but reiterated its concerns about the lack of fisheries data from some gears and fleets for target and bycatch species. Specifically, many fisheries statistics are missing or incomplete for some industrial and artisanal fisheries. As such, the Commission **REQUESTED** that all CPCs improve their data collection and reporting to the IOTC, especially taking into account that the Commission has initiated the consultation process on developing criteria for a quota allocation system. (para. 40 of the S18 report)

### Resolution 11/04 *On a regional observer scheme*

The Commission **NOTED** the recommendation from the SC that the total number of days-at-sea covered by observers versus the total number of days-at-sea for each fleet over a year is used instead of the number of sets/operations. However, this was not endorsed as it was felt that observer coverage rates were better calculated on the actual effort observed (i.e. number of hooks, number of sets). (para. 42 of the S18 report)

### Fin to body weight ratio

The Commission **RECALLED** the advice from the SC15 that:

SC15.24, para. 111 “...*the best way to encourage full utilisation of sharks, to ensure accurate catch statistics, and to facilitate the collection of biological information, is to revise the IOTC Resolution 05/05 concerning the conservation of sharks caught in association with fisheries managed by IOTC such that all sharks must be landed with fins attached (naturally or by other means) to their respective carcass. However, the SC NOTED that such an action would have practical implementation and safety issues for some fleets and may degrade the quality of the product in some cases. The SC RECOMMENDED all CPCs to obtain and maintain the best possible data for IOTC fisheries impacting upon sharks, including improved species identification.*” (para. 43 of the S18 report)

### Wire leaders/traces

The Commission **RECALLED** the advice from the SC15 that:

SC15.25, para 113...“*On the basis of information presented to the SC in 2011 and in previous years, the SC RECOGNISED that the use of wire leaders/traces in longline fisheries may imply targeting of sharks. The SC therefore RECOMMENDED to the Commission that if it wishes to reduce catch rates of sharks by longliners it should prohibit the use of wire leaders/traces.*” (para. 44 of the S18 report)

The Commission **NOTED** that the studies presented to the SC to date, indicate that catch rates of target tuna species are either not negatively impacted, or increase, if monofilament leaders are used instead of wire leaders. Monofilament leaders promote bite-offs which can lead to lower mortality rates. In contrast, wire and braided nylon traces produces higher shark catch rates and mortality, although it appears to vary by species. (para. 45 of the S18 report)

### Employment of a Fisheries Officer (Bycatch)

The Commission **NOTED** the request from the SC that the Commission approve the hiring of a Fishery Officer (Bycatch) to work on bycatch matters in support of the scientific process given the rapidly increasing scientific workload at the IOTC Secretariat, including a wide range of additional duties on ecosystems and bycatch assigned to it by the SC and the Commission. However, at this point in time, it was not considered a financial priority. (para. 46 of the S18 report)

## *Proposals for Conservation and Management Measures*

The Commission also considered a range of other proposals for CMMs on matters relevant to the WPEB, but consensus could not be reached. The following is a brief discussion of those proposals which the WPEB may wish to take into consideration when developing recommendations to the Scientific Committee:

**On a scientific and management framework on the conservation of shark species and on the protection of silky sharks (*Carcharhinus falciformis*) caught in association with fisheries managed by IOTC**

The Commission **CONSIDERED** a proposal on the conservation of silky sharks (*Carcharhinus falciformis*) caught in association with fisheries in the IOTC area of competence (IOTC–2014–S18–PropB), but agreement could not be reached and the proposal was deferred until the next Session of the Commission. According to the proposal, it aimed to prohibit the retention onboard, transshipment, landing or storing any part or whole carcass of silky sharks by all vessels on the IOTC record of authorised vessels or authorised to fish for tuna or tuna-like species, with the exception of observers. Silky sharks in the Indian Ocean have been classified as "*near threatened*" by the international scientific community, and the continuation of the current fishing pressure on this species could lead to the depletion of silky sharks and have a negative impact on the ecosystem. In addition, according to the proposal, silky sharks have been identified among the most vulnerable species by the IOTC Scientific Committee, based on the results of Ecological Risk Assessment conducted on this species. Several CPCs indicated that there is little data available on this species and requested that proposal is deferred until such a time where data are sufficiently available and the status of these stocks can be properly assessed. It was also suggested that the proposal was not consistent with the provisions of IOTC Resolution 13/06, in particular paragraphs 1 and 2 which call for the Commission to consider the implementation of management measures on the basis of advice from the Scientific Committee. It was further suggested by some CPCs that the proposal adversely affects data collection on silky sharks and dead silky sharks should be fully utilised. (para. 131 of the S18 report)

**On a scientific and management framework on the conservation of shark species and on the protection of hammerhead sharks (Family Sphyrnidae) caught in association with fisheries managed by IOTC**

The Commission **CONSIDERED** a proposal on the conservation of hammerhead sharks (Family Sphyrnidae) caught in association with fisheries in the IOTC area of competence (IOTC–2014–S18–PropC), but agreement could not be reached and the proposal was deferred until the next meeting of the Commission. According to the proposal, it aimed to prohibit the retention onboard, transshipment, landing or storing any part or whole carcass of hammerhead sharks by all vessels on the IOTC record of authorised vessels or authorised to fish for tuna or tuna-like species, with the exception of observers. Hammerhead sharks in the Indian Ocean have been classified as "*near threatened*" by the international scientific community, and, according to the proposal, the continuation of the current fishing pressure on this species could lead to the depletion of hammerhead sharks and have a negative impact on the ecosystem. In addition, according to the proposal, the hammerhead sharks have been identified among the most vulnerable species by the IOTC Scientific Committee, based on the results of Ecological Risk Assessment conducted on these species. The reasons for not adopting this proposal are the same as those for silky sharks, detailed above. (para. 135 of the S18 report)

**On the conservation of sharks**

The Commission **CONSIDERED** two proposals on the conservation of sharks (IOTC–2014–S18–PropD and IOTC–2014–S18–PropE), but agreement could not be reached and the proposals were deferred until the next meeting of the Commission. These proposals were to introduce amendments to Resolution 05/05 *On the conservation of sharks*, that require sharks to be landed with their fins attached to their respective carcass, to promote full utilisation of shark protein for food, and to facilitate the collection of critical data by species i.e. nominal catch, required to undertake rigorous assessments of the impact of fishing on these populations. The proposals also encouraged research into the effectiveness of prohibiting the use of wire trace on longline fishing vessels as a proven mitigation measure that will ameliorate the impact of fisheries for tuna and tuna-like species on shark populations throughout the IOTC area of competence. (para. 136 of the S18 report)

The Commission **NOTED** that the proposed amendments to Resolution 05/05 aim to promote full utilisation of shark protein for food, to deter shark finning and to facilitate the collection of critical data required to undertake rigorous assessments of the impact of fishing on these populations. Moreover, the Scientific Committee also noted that landing sharks with fins attached would be an important step forward for the identification of shark species and for the gathering of shark statistics. According to the proposals, they specifically require that sharks be landed with their fins attached to their respective carcass when caught in association with fisheries targeting tuna and tuna-like species throughout the Indian Ocean Tuna Commission area of competence. (para. 137 of the S18 report)

The Commission **NOTED** some CPCs comments which indicated that 1) Resolution 05/05 is implemented in the framework of other RFMOs; 2) prohibiting the removal of fins onboard vessels has nothing to do with management measures; 3) it adversely affects fishers economics as it prohibits their value adding practice; and 4) it provides no incentive to retain sharks onboard, which may adversely affect data collection on sharks. (para. 138 of the S18 report)

**NOTING** the comments of CPCs concerning Proposals B, C and D (IOTC–2014–S18–PropB, PropC and PropD), Australia requested the Commission consider Proposal E, seeking a ban on shark finning, for adoption as a Recommendation instead of as a Resolution. Many Members indicated willingness to adopt Proposal E as a Recommendation; however, some Members indicated their unwillingness. In view of the strong support of many CPCs, Australia respectfully requested those Members reconsider their position with a view to adopting the Recommendation in support of sustainable fisheries management in the region and to provide a clear signal that the IOTC was serious about stopping the practice of shark finning and associated illegal activities. However, a small number of the Members confirmed they could not support Proposal E as a Recommendation. (para. 139 of the S18 report)

**On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and non-targeted species caught by purse seine vessels in the IOTC area of competence**

The Commission **CONSIDERED** a proposal to revise IOTC Resolution 13/11 *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and non-targeted species caught by purse seine vessels in the IOTC area of competence* (IOTC–2014–S18–PropF), but agreement could not be reached and the proposal was deferred until the next meeting of the Commission. This proposal was to modify the voluntary component of Resolution 13/11 to make it a mandatory, specifically, to ban the discard by purse seiners of non-targeted species catches, other than living sharks, marine turtles and cetaceans protected under IOTC Resolutions 05/05, 09/06, 12/09, 12/04, 13/04 and 13/05, with the aim of improving the supply of seafood to the countries where the catches are landed or transhipped, and to provide more reliable statistics through shore-sampling programmes. The proposal was later revised to include a recommendation for all the other fleets to avoid discards at sea. (para. 141 of the S18 report)

The Commission **NOTED** that several CPCs, while agreeing in principle with the spirit of the proposal, indicated that full retention may not be practical for longline fleets, in which the fishing operation is very different for the purse seine fleets. Longline fleets target high quality product, have reduced storage space onboard, and often tranship the majority of the catch on the high seas, which makes unloading of bycatch in coastal countries unfeasible. These CPCs noted that the purpose of this proposal would be better achieved on longliners through release of bycatch, rather than full retention. In addition, other CPCs indicated that they would only be in a position to adopt this proposal if it is only applicable on the high seas, and excluded the EEZs of coastal States. (para. 142 of the S18 report)

**NOTING** the comment from the authors of the proposal that the lack of data shall not prevent adoption of precautionary management measures, and that the measure is in line with UN Millennium Development Goals and provisions in the Ecosystem Approach to Fisheries (EAF) and may contribute to food security in some of the coastal countries of the IOTC, the Commission **REQUESTED** that the Scientific Committee review proposal IOTC–2014–S18–PropL Rev\_1, and to make recommendations on the benefits of retaining non-targeted species catches, other than those prohibited via IOTC Resolutions, for consideration at the 19<sup>th</sup> Session of the Commission. (para. 143 of the S18 report)

**Report of the 18<sup>th</sup> Session of the IOTC**

The complete report of the 18<sup>th</sup> Session of the Indian Ocean Tuna Commission is available for download from the IOTC website:

- English: <http://iotc.org/documents/report-eighteenth-session-indian-ocean-tuna-commission>
- French: <http://iotc.org/fr/documents/rapport-de-la-dix-huitieme-session-de-la-commission-des-thons-de-l%E2%80%99oc%C3%A9an-indien>

**RECOMMENDATION/S**

That the WPEB

- 1) **NOTE** paper IOTC–2014–WPEB10–04 which outlined the main outcomes of the 18<sup>th</sup> Session of the Commission, specifically related to the work of the WPEB and **AGREE** to consider how best to provide the SC with the information it needs, in order to satisfy the Commission’s requests, throughout the course of the current WPEB meeting.
- 2) **NOTE** the 7 Conservation and Management Measures (CMMs) adopted at the 18<sup>th</sup> Session of the Commission (consisting of 6 Resolutions and 1 Recommendation), and in particular, [Recommendation 14/07 To standardise the presentation of scientific information in the annual Scientific Committee report and in Working Party reports](#), which has a direct impact on the work of the WPEB.

**APPENDICES**

**Appendix A:** Recommendation 14/07 *To standardise the presentation of scientific information in the annual scientific committee report and in working party reports*

## APPENDIX A



## RECOMMENDATION 14/07

**TO STANDARDISE THE PRESENTATION OF SCIENTIFIC INFORMATION IN THE ANNUAL SCIENTIFIC COMMITTEE REPORT AND IN WORKING PARTY REPORTS**

**Pursuant to Article IX.4 of the IOTC Agreement, this Conservation and Management Measure shall come into effect on 8 October 2014**

**The Indian Ocean Tuna Commission (IOTC),**

RECOGNISING the importance of sound scientific advice as the centre piece for the conservation and management of tuna and tuna-like species in the Indian Ocean and adjacent seas in line with international law and the information needs of the Commission;

NOTING that participants of the first Global Summit of Tuna RFMOs in 2007 in Kobe, Japan agreed that stock assessment results be presented in a standardised "four quadrant, red-yellow-green-orange" format that is now referred as the "Kobe Plot" which is widely embraced as a practical, user-friendly method to present stock status information;

FURTHER NOTING that, at the Second Joint Meeting of Tuna RFMOs in June 2009 in San Sebastian, Spain, a "Strategy Matrix" was adopted to provide fisheries managers with the statistical probability of meeting management targets, including ending overfishing and rebuilding overfished stocks, in a standardised manner as a result of potential management actions;

AKNOWLEDGING that the Strategy Matrix is a harmonised format for RFMO science bodies to convey advice, and that this format for presenting stock assessment results facilitates the application of the precautionary approach by providing Commissions with the basis to evaluate and adopt management options at various levels of probability of success;

RECALLING recommendations of the Kobe II Workshop of Experts to Share Best Practices on the Provision of Scientific Advice and of the Kobe III recommendations, in particular on development on research activities to better quantify the uncertainty and understand how this uncertainty is reflected in the risk assessment inherent in the Kobe II strategy matrix;

FURTHER RECALLING the provisions of the Recommendation 12/15 *on the best available science*, that requests the provision of clear, transparent, and standardised formats for scientific advice delivered to the Commission;

TAKING INTO ACCOUNT that Resolutions 12/01 *on the implementation of the precautionary approach* and 13/10 *on interim target and limit reference points and a decision framework*, make possible the implementation of the precautionary approach thanks to the adoption of interim target and limit reference points;

NOTING the excellent work to date by the Scientific Committee, its working parties and the IOTC Secretariat to standardise the presentation of scientific information in their annual reports, including via the '*Executive Summaries*' for each stock;

STRESSING the importance of further refining the presentation of scientific information to facilitate appropriate utilisation by the Commission;

RECOMMENDS, in accordance with paragraph 8 of Article IX of the IOTC Agreement, that:

1. In support of the scientific advice made available by the IOTC Scientific Committee, the '*Executive Summaries*' within the annual IOTC Scientific Committee report which present stock assessment results, include when possible:

**Stock status**

- a) A Kobe plot/chart showing:
- i. Any Target and Limit Reference Points adopted by the Commission, e.g.  $F_{MSY}$  and  $F_{LIM}$ ,  $SB_{MSY}$  and  $SB_{LIM}$  or  $B_{MSY}$  and  $B_{LIM}$ , depending on the assessment models used by the Scientific Committee, or proxies where available;
  - ii. The stock estimates, expressed in reference to Target Reference Points adopted by the Commission, e.g. as  $F_{CURRENT}$  on  $F_{MSY}$  and as  $SB_{CURRENT}$  on  $SB_{MSY}$  or as  $B_{CURRENT}$  on  $B_{MSY}$ ;
  - iii. The estimated uncertainty around estimates, provided that statistical methods to do so have been agreed upon the Scientific Committee and that sufficient data exist;
  - iv. The stock status trajectory.
- b) A graphical representation showing the proportion of model outputs of the years used for advice from the last stock assessment that are within the green quadrant of the Kobe plot/chart (not overfished, not subject to overfishing), the yellow and orange quadrants (overfished or subject to overfishing) and the red quadrant (overfished and subject to overfishing).

**Model outlooks**

- c) Two Kobe II strategy matrices:
- i. A first one indicating the probability of complying with the Target Reference Points adopted by the Commission, e.g. the probability of either  $SB > SB_{MSY}$  or  $B > B_{MSY}$  and of  $F < F_{MSY}$  for different levels of catch across multiple years;
  - ii. A second one indicating the probability of being inside safe biological limits expressed through Limit Reference Points adopted by the Commission, e.g. the probability of either  $SB > SB_{LIM}$  or  $B > B_{LIM}$  and of  $F < F_{LIM}$  for different levels of catch across multiple years;
  - iii. When the Commission agrees on acceptable probability levels associated with the target and limit reference points on a stock by stock basis, the Scientific Committee could prepare and include, in the annual report, the Kobe II strategy matrices using colour coding corresponding to these thresholds.

**Data quality and limitations of the assessment models**

- d) A statement qualifying the quality, the reliability and where relevant the representativeness of input data to stock assessments, such as, but not limited to:
- i. Fisheries statistics and fisheries indicators (e.g. catch and effort, catch-at size and catch at age matrices by sex and, when applicable, fisheries dependent indices of abundance);
  - ii. Biological information (e.g. growth parameters, natural mortality, maturity and fecundity, migration patterns and stock structure, fisheries independent indices of abundance);
  - iii. Complementary information (e.g. consistencies among available abundance indices, influence of the environmental factors on the dynamic of the stock, changes in fishing effort distribution, selectivity and fishing power, changes in target species).
- e) A statement qualifying the limits of the assessment model with respect to the type and the quality of the input data and expressing the possible biases in the assessment results associated with uncertainties of the input data;
- f) A statement concerning the reliability of the projections carried out over the long term.

**Alternative approach (data poor stocks)**

2. When, due to data or modelling limitations, the IOTC Scientific Committee is unable to develop Kobe II strategy matrices and associated charts or other estimates of current status relative to benchmarks, the IOTC Scientific Committee will develop its scientific advice on available fisheries-dependant and fisheries-independent indicators and provide similar caveats as those detailed in paragraph 1(d).

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**Additional information and review of the structure and templates of the '*Executive Summaries*'**

3. The Commission encourages the IOTC Scientific Committee to include either in its annual report or in the detailed reports, where possible and if considered as relevant and useful, any other tables and/or graphics supporting scientific advice and management recommendations. In particular, the IOTC Scientific Committee will include, where possible, information on the recruitment trajectories, on the stock-recruitment relationship and some ratio such as yield per recruit or biomass per recruit.
4. As far as needed, the IOTC Scientific Committee shall review recommendations and templates for the Kobe II strategy matrices, plot and graphical representations as laid down in this Recommendation and will advise the Commission on possible improvements.