
PROGRESS MADE ON THE RECOMMENDATIONS OF WPEB14

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PURPOSE

To provide participants at the 15th WPEB with an update on the progress made in implementing those recommendations from the previous Working Party on Ecosystems and Bycatch (WPEB) meeting which were endorsed by the Scientific Committee (SC), and to provide alternative recommendations for the consideration and potential endorsement by participants as appropriate given any progress.

BACKGROUND

At the 14th Session of the WPEB, participants agreed on a series of actions to be taken by participants, CPCs, and the IOTC Secretariat on a range of issues. The subsequent table developed and agreed to by the WPEB was provided to the SC for its endorsement at its December 2018 meeting.

DISCUSSION

The Rules of Procedure of the Scientific Committee include the following seven core tasks, which are to be supported by the various Working Parties.

- a) recommend policies and procedures for the collection, processing, dissemination and analysis of fishery data;
- b) facilitate the exchange and critical review among scientists of information on research and operation of fisheries of relevance to the Commission;
- c) develop and coordinate cooperative research programmes involving Members of the Commission in support of fisheries management;
- d) assess and report to the Commission on the status of stocks of relevance to the Commission and the likely effects of further fishing and of different fishing patterns and intensities;
- e) formulate and report to the sub-commission, as appropriate, on recommendations concerning conservation, fisheries management and research, including consensus, majority and minority views;
- f) consider any matter referred to by the Commission;
- g) carry out other technical activities of relevance to the Commission.

Recalling that the SC, at its 16th Session adopted a set of reporting terminology SC16.07 (para. 23), which was subsequently endorsed by the Commission at its 18th Session in 2014 (S18, para 10), to further improve the clarity of information sharing from, and among the science bodies, the following two term levels should be noted when interpreting the Reports and [Appendix I](#) to this paper:

Level 1: From a subsidiary body of the Commission to the next level in the structure of the Commission:

RECOMMENDED, RECOMMENDATION: Any conclusion or request for an action to be undertaken, from a subsidiary body of the Commission (Committee or Working Party), which is to be formally provided to the next level in the structure of the Commission for its consideration/endorsement (e.g. from a Working Party to the Scientific Committee; from a Committee to the Commission). The intention is that the higher body will consider the recommended action for endorsement under its own mandate, if the subsidiary body does not already have the required mandate. Ideally this should be task specific and contain a timeframe for completion.

Level 2: From a subsidiary body of the Commission to a CPC, the IOTC Secretariat, or other body (not the Commission) to carry out a specified task:

REQUESTED: This term should only be used by a subsidiary body of the Commission if it does not wish to have the request formally adopted/endorsed by the next level in the structure of the Commission. For example, if a Committee wishes to seek additional input from a CPC on a particular topic, but does not wish to formalise the request beyond the mandate of the Committee, it may request that a set action be undertaken. Ideally this should be task specific and contain a timeframe for the completion.

In addition to the Recommendations endorsed by the SC at its 20th Session, the SC also made several requests which, although are not passed to the Commission for its endorsement, are considered actions which the Scientific Committee has the mandate to issue. The revised recommendations are contained in Appendix I for the consideration and potential endorsement by the WPEB14.

RECOMMENDATION

That the WPEB **NOTE** the progress made in implementing the recommendations and requests of the 14th Session of the WPEB, and consider whether revised recommendations need to be sent to the SC for its consideration.

APPENDICES

Appendix I: Progress made on the Recommendations and Requests of WPEB14

APPENDIX I

Progress made on the recommendations and requests of WPEB13 and SC20

WPEB14 Rec. No.	Recommendation from WPEB13	SC21 Rec. No.	Recommendation adopted by the SC21	Progress/Comments
WPEB14. 01	Mobulid rays (para. 171) The WPEB RECOMMENDED that data collection for mobulid rays (if possible to species level) should be improved, that by-catch mitigation methods should be investigated and that safe release techniques and best practices should be implemented	SC21.15	(para. 71). The SC RECOMMENDED that data collection for mobulid rays (if possible to species level) should be improved, that by-catch mitigation methods should be investigated and that safe release techniques and best practices should be implemented.	Update: The Commission adopted Resolution 19/03 <i>On the conservation of mobulid species caught in association with fisheries in the IOTC Area of Competence</i>
WPEB14. 02	(para. 172) The WPEB NOTED the status and declines of <i>Mobula</i> spp. in the Indian Ocean (which under current taxonomic revisions include the manta rays as well). Given the significant declines of these species across their range in the Indian Ocean along with evidence of these species' interaction with pelagic fisheries, in particular tuna gillnet, purse seine, and occasionally longline fisheries, the WPEB RECOMMENDED that management actions, such as non-retention measures in the IOTC Area of Competence (as a first step considering the Precautionary Approach) among others, are required to enable these species to recover and must immediately be adopted instead of waiting until 2020.	SC21.16	(para. 72) The SC noted the status and declines of <i>Mobula</i> spp. in the Indian Ocean (which under current taxonomic revisions include the manta rays as well). Given the significant declines of these species across their range in the Indian Ocean along with evidence of these species' interaction with pelagic fisheries, in particular tuna gillnet, purse seine, and occasionally longline fisheries, the SC RECOMMENDED that management actions, such as non-retention measures in the IOTC Area of Competence (as a first step considering the Precautionary Approach) among others, are required to enable these species to recover and must immediately be adopted instead of waiting until 2020.	Update: The Commission adopted Resolution 19/03 <i>On the conservation of mobulid species caught in association with fisheries in the IOTC Area of Competence</i>
WPEB14. 03	Revision of the WPEB Program of Work 2019–2023 (para. 234) The WPEB RECOMMENDED that the SC consider and endorse the WPEB Program of Work (2019–2023), as provided in Appendix XIX.		Program of Work (2019–2023) (para. 220) The SC noted the proposed Program of Work and priorities for the Scientific Committee and each of the Working Parties and AGREED to a consolidated Program of Work as outlined in Appendix 35a-g. The Chairpersons and Vice-Chairpersons of each working party shall ensure that the efforts of their working party are focused on the core areas contained within the appendix, taking into account any	Update: Completed

			<p>new research priorities identified by the Commission at its next Session.</p>	
<p>WPEB14.04</p>	<p>Review of the draft, and adoption of the Report of the 14th Session of the Working Party on Ecosystems and Bycatch</p> <p>(para. 207) The WPEB RECOMMENDED that the Scientific Committee consider the consolidated set of recommendations arising from WPEB14, provided at Appendix XIX, as well as the management advice provided in the draft resource stock status summary for each of the seven shark species, as well of those for marine turtles and seabirds:</p> <p>Sharks</p> <ul style="list-style-type: none"> • Blue sharks (<i>Prionace glauca</i>) – Appendix IX • Oceanic whitetip sharks (<i>Carcharhinus longimanus</i>) – Appendix X • Scalloped hammerhead sharks (<i>Sphyrna lewini</i>) – Appendix XI • Shortfin mako sharks (<i>Isurus oxyrinchus</i>) – Appendix XII • Silky sharks (<i>Carcharhinus falciformis</i>) – Appendix XIII • Bigeye thresher sharks (<i>Alopias superciliosus</i>) – Appendix XIV • Pelagic thresher sharks (<i>Alopias pelagicus</i>) – Appendix XV <p>Other species/groups</p> <ul style="list-style-type: none"> • Marine turtles – Appendix XVI • Seabirds – Appendix XVII • Marine mammals – Appendix XVIII 		<p>Sharks</p> <p>(para. 201) The SC RECOMMENDED that the Commission note the management advice developed for a subset of shark species commonly caught in IOTC fisheries for tuna and tuna-like species:</p> <ul style="list-style-type: none"> • Blue shark (<i>Prionace glauca</i>) – Appendix 23 • Oceanic whitetip shark (<i>Carcharhinus longimanus</i>) – Appendix 24 • Scalloped hammerhead shark (<i>Sphyrna lewini</i>) – Appendix 25 • Shortfin mako shark (<i>Isurus oxyrinchus</i>) – Appendix 26 • Silky shark (<i>Carcharhinus falciformis</i>) – Appendix 27 • Bigeye thresher shark (<i>Alopias superciliosus</i>) – Appendix 28 • Pelagic thresher shark (<i>Alopias pelagicus</i>) – Appendix 29 <p>Marine turtles</p> <p>(para. 202) The SC RECOMMENDED that the Commission note the management advice developed for marine turtles, as provided in the Executive Summary encompassing all six species found in the Indian Ocean:</p> <ul style="list-style-type: none"> • Marine turtles – Appendix 30 <p>Seabirds</p> <p>(para. 203) The SC RECOMMENDED that the Commission note the management advice developed for seabirds, as provided in the Executive Summary encompassing all species commonly interacting with IOTC fisheries for tuna and tuna-like species:</p> <ul style="list-style-type: none"> • Seabirds – Appendix 31 <p>Marine Mammals</p>	<p>Update: Completed</p>

			<p>(para. 204) The SC RECOMMENDED that the Commission note the management advice developed for cetaceans, as provided in the newly developed Executive Summary encompassing all species commonly interacting with IOTC fisheries for tuna and tuna-like species:</p> <ul style="list-style-type: none"> • Cetaceans – Appendix 32. 	
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WPEB13 Report	WPEB13 REQUESTS	Update/Progress
Para. 16	The WPEB REQUESTED that the IOTC Secretariat continue to prepare a paper on the progress of the recommendations arising from the previous WPEB, incorporating the final recommendations adopted by the Scientific Committee and endorsed by the Commission, as well as any updates and requests	Update: IOTC–2019–WPEB15–06
Para. 24	<p><i>Review of the statistical data available for ecosystems and bycatch species</i></p> <p>NOTING the proposed updates to the IOTC discard reporting form (Form 1DI) to include seasonal and spatial information, the WPEB REQUESTED CPCs to provide their feedback on the feasibility of submitting data according to the updated requirements, and that this is further discussed at the next WPDCS and SC meetings.</p>	Update: The WPDCS NOTED that the WPEB14 did not provide a clear indication on whether or not fine scale information for bycatch and discards should be provided to the Secretariat through the revised version of Form 1_DI or ultimately only through the data collected from the Regional Observer Scheme
Para. 25	The WPEB NOTED that information on the status of discards (dead/alive) is rarely provided and REQUESTED CPCs to record and report this information through their observer programmes.	Update: [Ongoing]
Para. 26	The WPEB EMPHASIZED that sourcing and reconstructing historical catch and effort data remains a high priority. However, it was also noted that the lack of historical catch data poses a challenge in assessing population status of all IOTC and associated species. Therefore, the WPEB REQUESTED the WPDCS explore the option of addressing this challenge through directed workshops that comprise national scientists with institutional knowledge of national fisheries and international experts to provide guidance and capacity building in analytic approaches and tools for data recovery and catch reconstruction methods.	Update: : ACKNOWLEDGING the importance of reliable historical catch data for a number of species under IOTC mandate, the WPDCS SUGGESTED to consider the addition of a specific activity in its program of work to support directed workshops targeting national scientists and international experts with knowledge of national fisheries and analytic approaches for catch reconstruction methods.

<p>Para. 31</p>	<p><i>Pilot projects under Resolution 16/04</i></p> <p>Also, the WPEB ACKNOWLEDGED that over 60% of the trips for which scientific observer data was submitted in suitable electronic formats to the IOTC Secretariat have been processed and incorporated within the ROS Regional Database. Therefore, given the importance of having access to comprehensive scientific observer historical information for analytical purposes, the WPEB REQUESTED CPCs to report all historical scientific observer data at their availability in a proper electronic format, including information on key bycatch species groups such as marine turtles, seabirds and marine mammals.</p>	<p>Update: [Ongoing]</p>
<p>Para. 39</p> <p>Para. 40</p> <p>Para.41</p>	<p><i>Updated status of development and implementation of National Plans of Action for seabirds and sharks, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations (CPCs).</i></p> <p>The WPEB NOTED that no requests were received by the IOTC Secretariat since the last SC meeting to apply a status of 'Not applicable (n.a.)' for an NPOA, in the 'Table of progress in implementing NPOA-sharks, NPOA-seabirds and the FAO guidelines to reduce sea turtle mortality in fishing operations'. The Scientific Committee recently revoked two statuses of 'not applicable' due to insufficient evidence provided, so the WPEB REQUESTED CPCs to continue to review their status periodically and either update this or provide additional supporting information as necessary.</p> <p>The WPEB REQUESTED 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 2017, NOTING that NPOAs are a framework that should facilitate estimation of shark catches, seabird interactions, and development and implementation of appropriate management measures, which should also enhance the collection of bycatch data and compliance with IOTC Resolutions.</p> <p>The WPEB REQUESTED that the IOTC Secretariat continue to periodically revise the table summarising progress towards the development of NPOA-Sharks, NPOA-Seabirds, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations, with information provided by each CPC for the consideration at the WPEB and SC meetings. The current status is provided in Appendix VIII.</p>	<p>Update: [Ongoing] No new applications for n.a. have been received by the secretariat since the last meeting of the WPEB.</p> <p>Update: [Ongoing] Any new NPOAs brought to the attention of the secretariat have been included in document IOTC-2019-WPEB15-09</p> <p>Update: [Ongoing] Any new NPOAs brought to the attention of the secretariat have been included in document IOTC-2019-WPEB15-09</p>
<p>Para. 56</p>	<p><i>FAD fisheries</i></p> <p>The WPEB REQUESTED that the IOTC Secretariat discuss during the next WPDCS the possibility of creating a database of biological information that would be particularly useful to the WPEB and WPB among others.</p>	<p>Update: The WPDCS CONSIDERED the utility of developing a common database to store Indian Ocean specific biological information, but REQUESTED further details on the kinds of information that should be included, and who should be assigned responsibility of the collation and maintenance of a common database.</p>

<p>Para. 67</p>	<p><i>Bycatch in Iranian fisheries</i></p> <p>The WPEB also ACKNOWLEDGED that I.R. Iran is currently working on a catch reconstruction for sharks time series from 1950 to 1992 and REQUESTED I.R. Iran to eventually provide the results of this exercise to the IOTC Secretariat</p>	<p>Update: [Ongoing]</p>
<p>Para. 161</p>	<p><i>Other information</i></p> <p>The WPEB REQUESTED that in future, historical observer data be investigated for data limited species to determine if there was an increase in targeting or reporting over time. As increase in catch of sharks may be driven by market demand and availability, the WPEB NOTED that CPUE standardization is not robust to changes in fisheries patterns and targeting over time.</p>	<p>Update: [Ongoing]</p>
<p>Para. 170</p>	<p><i>Mobulid rays</i></p> <p>The WPEB REQUESTED that authors of the new mobulid ID guide provide input on the IOTC guide to improve data collection of mobulids in IOTC fisheries.</p>	<p>Update: [Ongoing]</p>
<p>Para. 181</p>	<p><i>Review new information on marine turtle biology, ecology, fisheries interactions and bycatch mitigation measures</i></p> <p>The WPEB also NOTED that although data is still limited, information from Pakistan suggests that release alive of sea turtles is relatively high in drift gillnet fisheries (~90%, for surface gillnet deployments) and that bycatch rates of sea turtles (particularly Olive Ridley and green turtles) are significantly lower in subsurface drift gillnet deployments. Therefore, the WPEB REQUESTED that CPCs provide information on sea turtles bycatch in gillnets, including sea turtle released alive following gillnet entanglements.</p>	<p>Update: [Ongoing]</p>
<p>Para. 182</p>	<p>The WPEB NOTED the recent developments in risk assessment models that quantify the cumulative impacts of multiple fisheries and report the vulnerability status against recognised biological reference points (e.g. B_{MSY}, F_{MSY}), thus facilitating communication of results to managers (e.g. EASI-Fish, Griffiths et al. 2018). The WPEB REQUESTED CPCs to explore the application of these new approaches for evaluating the vulnerability of IOTC bycatch species and AGREED to include this in the WPEB work plan. The WPEB ACKNOWLEDGED that other threats than fishing-related impacts are not included in this kind of approach.</p>	<p>Update: [Ongoing]</p>
<p>Para. 184</p>	<p>The WPEB REQUESTED the IOTC Secretariat to explore the potential for a similar workshop to be held in the Indian Ocean with funding from the Commission and/or from the ABNJ. The WPEB AGREED to retain this in the WPEB work plan.</p>	<p>Update: [Ongoing] The common oceans ABNJ tuna project phase I ends in December 2019 and so funding from this project is unlikely in the near future. In addition, the IOTC has a very full WP schedule in 2019 and so an extra workshop has not been possible this year. The secretariat will continue to explore options for this workshop in the future.</p>

Para. 188

Review new information on marine mammal biology, ecology, fisheries interactions and bycatch mitigation measures

The WPEB further **NOTED** that interactions between gillnet and cetaceans have only been reported by WWF Pakistan and **REQUESTED** CPCs to provide information on records of cetaceans interactions in the gillnet fleets and share information regarding discards, mortality and releases.

Update: **[Ongoing]**