

## PROGRESS MADE ON THE RECOMMENDATIONS OF WPEB18 AND SC25

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### PURPOSE

To provide participants at the 19<sup>th</sup> Working Party on Ecosystems and Bycatch (WPEB) with an update on the progress made in implementing those recommendations from the previous 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 18<sup>th</sup> 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 2022 meeting. This paper provides a summary of the progress made on this list of requests so that the working party can evaluate progress made and to agree on the next steps to be taken for each issue.

### 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 16<sup>th</sup> Session adopted a set of reporting terminology SC16.07 (para. 23), which was subsequently endorsed by the Commission at its 18<sup>th</sup> 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 22<sup>nd</sup> 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 WPEB16.

#### **RECOMMENDATION**

That the WPEB **NOTE** the progress made in implementing the recommendations and requests of the 18<sup>th</sup> 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 WPEB18

## APPENDIX I

## Progress made on the recommendations and requests of WPEB17 and SC24

WPEB18 Rec. No.	Recommendation from WPEB17	SC25 Rec. No.	Recommendation adopted by the SC25	Endorsed at S27	Progress/Comments
WPEB18.0 1 (para. 42)	<b>NOTING</b> that sharks caught in association with tuna fisheries in the Indian Ocean include migratory and straddling stocks which require regional cooperation, joint scientific research programmes and mitigation measures for protection endangered, threatened and protected species, the WPEB <b>RECOMMENDED</b> that the SC support cooperation and coordination with the Nairobi Convention on the development of RPOAs and prioritise funding to support such research and management activities for improving the status of sharks and rays in the Indian Ocean.		This item was only discussed briefly during the SC and no endorsement or recommendations were made.		Update: <b>[Ongoing]</b>  This was not discussed by the Commission, however, the WPEB may work cooperatively to develop RPOAs with the support of the Secretariat.
WPEB18.0 2 (para. 120)	The WPEB <b>NOTED</b> the uncertainty in the catch series, high levels of misidentified catch and underreporting of catches for scalloped hammerhead sharks. The WPEB <b>RECOMMENDED</b> that the SC endorse an update of the list of sharks, rays and ETP species included in Appendix II of IOTC Resolution 15/01 for each fishing gear. In particular, to ensure that all species groups under the current broad categories (e.g., Hammerhead sharks ( <i>Sphyrna</i> spp.) - SPN, Mako sharks ( <i>Isurus</i> spp.) - MAK, Marine turtles - TTX, etc.) are reported separately by species (e.g. scalloped hammerhead ( <i>Sphyrna lewini</i> ; SPL), great hammerhead ( <i>Sphyrna mokarran</i> ; SPK), smooth hammerhead ( <i>Sphyrna zygaena</i> ; SPZ), shortfin mako ( <i>Isurus oxyrinchus</i> ).	SC25 (para. 61)	The SC <b>NOTED</b> a recommendation from the WPEB to revise the list of sharks, rays and Endangered, Threatened and Protected (ETP) species included in Appendix II of Resolution 15/01 to ensure that all species under broad categories such as hammerhead sharks ( <i>Sphyrna</i> spp.) are reported separately by species. The SC <b>NOTED</b> that this could help to provide an incentive to improve catches of these species which may have historically been reported aggregated.  However, no recommendation was made to the Commission on this topic.		Update: <b>[Ongoing]</b>  This was not discussed by the Commission. It might be worth requesting that this is discussed by the WPDCS.
WPEB18.0 3 (para. 127)	<b>RECALLING</b> the request by the Commission to develop research plans for sharks, the WPEB <b>RECOMMENDED</b> that the SC endorse the	SC25 (para. 66)	<b>RECALLING</b> the request by the Commission to develop research plans for sharks, the SC <b>ENDORSED</b> the creation of a working group to		Update: <b>[Ongoing]</b>  The Commission endorsed the Scientific Committee's 2022 list of recommendations as

	creation of a working group to work intersessionally to develop a series of research plans/program for sharks with scalloped hammerhead as a priority species.		work intersessionally to develop a series of research plans/program for sharks with scalloped hammerhead as a priority species.  This item was also included in the table of priority topics for all Working Parties		its own including those relating to the program of work. This item is included in the WPEB program of work.
WPEB18.0 4 (para. 138)	The WPEB <b>NOTED</b> that the use of artificial lights (a visual deterrent) in gillnet fisheries as a potential bycatch mitigation device was discussed at length and <b>NOTED</b> the strong support for the rolling out of future LED trials across the Indian Ocean by the workshop participants. However, the WPEB <b>NOTED</b> that the use of artificial lights is banned in the Indian Ocean due to IOTC Resolution 16/07. Therefore, the WPEB <b>RECOMMENDED</b> that the SC seek clarification from the Commission on whether Resolution 16/07 applies to gillnet fisheries and to scientific studies as the current wording is somewhat ambiguous.	SC25.15 (para. 64)	The SC <b>NOTED</b> the potential for using artificial lights (a visual deterrent) in gillnet fisheries as a potential bycatch mitigation device and the need to test this further via LED trials, which could also determine if such lights might attract unwanted bycatch. However, the SC <b>NOTED</b> that Resolution 16/07 prohibits Fishing vessels and other vessels including support, supply and auxiliary vessels to use, install or operate surface or submerged artificial lights for the purpose of aggregating tuna and tuna-like species. However, the SC <b>NOTED</b> that it is not clear if this also applies to gillnets. Therefore, the SC <b>RECOMMENDED</b> that the Commission provide clarification on whether Resolution 16/07 also applies to gillnet fisheries and/or to scientific studies as the current wording is somewhat ambiguous.	S27 (para. 32)	Update: <b>[Completed]</b>  The Commission <b>NOTED</b> in particular, SC Recommendation 15 that Resolution 16/07 <i>On the use of artificial lights to attract fish</i> (which prohibits using artificial lights for the purpose of aggregating tuna and tuna-like species) does not apply to scientific studies.  No further details on this were provided by the Commission.
WPEB18.0 5 (para. 149)	The WPEB <b>RECOMMENDED</b> that the SC and other working groups review the ongoing ecoregion process, including their purpose and potential benefits in providing more integrated regional advice and provide feedback to the WPEB. The WPEB also <b>RECOMMENDED</b> that the SC endorses the proposed refined candidate ecoregions and the development of pilot projects to evaluate their utility and effectiveness as a tool to support regional ecosystem planning and prioritization, incentivized ecosystem research and the development of integrated advice products for informing fisheries management decisions.	SC25 (para. 60)	The SC <b>ENDORSED</b> the proposed refined candidate ecoregions and the development of the proposed pilot projects to evaluate their utility and effectiveness.  This item was also included in the table of priority topics for all Working Parties.		Update: <b>[Ongoing]</b>  The Commission endorsed the Scientific Committee's 2022 list of recommendations as its own including those relating to the program of work. This item is included in the WPEB program of work.

WPEB18.0 6 (para. 151)	The WPEB <b>NOTED</b> the evidence indicating the increased operation of squid fisheries in the high seas of the Indian Ocean, and particularly in fishing grounds which overlap with areas where tuna purse seine fleets operate, <b>NOTING</b> that this overlap results in bycatch of tuna and tuna-like species in the squid fishery. However, as these fisheries are not managed by IOTC, data on these catches of tuna and tuna-like species are not provided to the IOTC. Therefore, the WPEB <b>RECOMMENDED</b> that the SC <b>RECOMMEND</b> that the Commission request that the CPCs report all catches of tuna to the IOTC regardless of the target species of the fishery. The WPEB further <b>REQUESTED</b> that the Compliance Committee seek more information on this fishery from the CPCs.	SC25.13 (para. 62)	The SC <b>NOTED</b> the evidence indicating the increased operation of squid fisheries in the high seas of the Indian Ocean, and particularly in fishing grounds which overlap with areas where tuna purse seine fleets operate, <b>NOTING</b> that this overlap results in bycatch of tuna and tuna-like species in the squid fishery. However, as these fisheries are not managed by IOTC, data on these catches of tuna and tuna-like species are not provided to the IOTC. Therefore, the SC <b>RECOMMENDED</b> that the Commission request that the CPCs report all catches of tuna to the IOTC regardless of the target species of the fishery. The SC further <b>REQUESTED</b> that the Commission seek more information on this fishery from the CPCs.		Update: <b>[Ongoing]</b>  This item was not discussed in detail at the Commission but the Commission did note some issues with data availability for some species and urged all members to submit data to improve the assessments for species under the IOTC mandate.
WPEB18.0 7 (para. 176)	<b>NOTING</b> the effectiveness of hook-shielding devices in reducing seabird bycatch mortality in pelagic longlines and the fact that the WCPFC included the hook-shielding devices in 2018 as an optional measure to mitigate longline seabird bycatch, while also <b>NOTING</b> that the actual utilisation of this device in commercial fishing has been limited partially due to operational difficulty and cost efficiencies, the WPEB <b>RECOMMENDED</b> that the SC consider whether to include hook-shielding devices as an additional option for seabird bycatch mitigation measures in Res. 12/06 and if so, to recommend to the Commission, accordingly.	SC25.14 (para. 63)	The SC <b>NOTED</b> the evidence provided to the WPEB on the effectiveness of hook-shielding devices in reducing seabird bycatch mortality in pelagic longlines and further <b>NOTED</b> that the WCPFC included the hook-shielding devices in 2018 as an option to mitigate longline seabird bycatch. The SC <b>ACKNOWLEDGED</b> the potential operational difficulties and costs of utilising these devices as well as the potential limited number of manufacturers. However, based on the scientific evidence (supported by the ACAP guidelines) the SC <b>RECOMMENDED</b> that the Commission consider including hook-shielding devices as an additional option for seabird bycatch mitigation measures in Resolution 12/06. The SC <b>NOTED</b> that this had previously been recommended as a stand-alone measure in 2016 for the proposed revision of 12/06 (IOTC-2016-SC19-R para. 69).		Update: <b>[Completed]</b>  The Commission adopted Resolution 23/07 <i>On reducing the incidental bycatch of seabirds in longline fisheries</i> which includes hook-shielding devices as a mitigation measure option.
WPEB18.0 8 (para. 181)	The WPEB <b>NOTED</b> that the IOSEA has been collaborating with the IOTC for many years and the Letter of Intent is intended to formalise this collaboration. The WPEB <b>ACKNOWLEDGED</b> the	SC25.17 (para. 73)	The SC <b>ACKNOWLEDGED</b> the proposed Cooperation Agreement between the IOSEA Marine Turtle MOU and IOTC and <b>NOTED</b> that this Agreement is based on the language used in the Agreement between IOTC and ACAP which has		Update: <b>[Completed]</b>  The Cooperation Agreement between IOTC and IOSEA has been approved and signed by both parties.

	Letter of Intent and <b>RECOMMENDED</b> that the letter is discussed at the SC.		been accepted by the Commission. The SC <b>NOTED</b> this will facilitate better exchange of scientific information and data on sea turtles and their fishery interactions relevant to future commission discussions and decisions on this issue. The SC <b>RECOMMENDED</b> that the proposed Agreement is presented at the Commission for further consideration.		
WPEB18.0 9 (para. 183)	The WPEB <b>RECOMMENDED</b> that the SC consider and endorse the WPEB Program of Work (2023–2027), as provided in <a href="#">Appendix XVII</a> .	SC25 (para. 180)	The SC <b>NOTED</b> the proposed Program of Work and priorities for the SC and each of the working parties and <b>AGREED</b> to a consolidated Program of Work as outlined in <a href="#">Appendix 35a-g</a> and in accordance with the IOTC Strategic Science Plan 2020-2024. The Chairpersons and Vice-Chairpersons of each working party will ensure that the efforts of their respective working parties are focused on the core areas contained within the appendix, taking into account any new research priorities identified by the Commission at its next Session.	S27 (para. 31)	Update: <b>[Completed]</b>  The Commission <b>NOTED</b> the stock status summaries for species of tuna and tuna-like species under the IOTC mandate, as well as other species impacted by IOTC fisheries and considered the recommendations made by the Scientific Committee to the Commission. The Commission <b>ENDORSED</b> the Scientific Committee's 2022 list of recommendations as its own.
WPEB18.1 0 (para. 185)	The WPEB <b>RECOMMENDED</b> that the Scientific Committee consider the consolidated set of recommendations arising from WPEB18, provided at <a href="#">Appendix XVIII</a> , 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: <b>Sharks</b> <ul style="list-style-type: none"> <li>○ Blue sharks (<i>Prionace glauca</i>) – <a href="#">Appendix VII</a></li> <li>○ Oceanic whitetip sharks (<i>Carcharhinus longimanus</i>) – <a href="#">Appendix VIII</a></li> <li>○ Scalloped hammerhead sharks (<i>Sphyrna lewini</i>) – <a href="#">Appendix IX</a></li> <li>○ Shortfin mako sharks (<i>Isurus oxyrinchus</i>) – <a href="#">Appendix X</a></li> </ul>	SC25.04 (para. 163)	The SC <b>RECOMMENDED</b> 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:  Blue shark ( <i>Prionace glauca</i> ) – <a href="#">Appendix 23</a>  Oceanic whitetip shark ( <i>Carcharhinus longimanus</i> ) – <a href="#">Appendix 24</a>  Scalloped hammerhead shark ( <i>Sphyrna lewini</i> ) – <a href="#">Appendix 25</a>  Shortfin mako shark ( <i>Isurus oxyrinchus</i> ) – <a href="#">Appendix 26</a>  Silky shark ( <i>Carcharhinus falciformis</i> ) – <a href="#">Appendix 27</a>  Bigeye thresher shark ( <i>Alopias superciliosus</i> ) – <a href="#">Appendix 28</a>  Pelagic thresher shark ( <i>Alopias pelagicus</i> ) – <a href="#">Appendix 29</a>	S27 (para. 31)	Update: <b>[Completed]</b>  The Commission <b>NOTED</b> the stock status summaries for species of tuna and tuna-like species under the IOTC mandate, as well as other species impacted by IOTC fisheries and considered the recommendations made by the Scientific Committee to the Commission. The Commission <b>ENDORSED</b> the Scientific Committee's 2022 list of recommendations as its own.

	<ul style="list-style-type: none"> <li>○ Silky sharks (<i>Carcharhinus falciformis</i>) – <a href="#">Appendix XI</a></li> <li>○ Bigeye thresher sharks (<i>Alopias superciliosus</i>) – <a href="#">Appendix XII</a></li> <li>○ Pelagic thresher sharks (<i>Alopias pelagicus</i>) – <a href="#">Appendix XIII</a></li> </ul> <p><b>Other species/groups</b></p> <ul style="list-style-type: none"> <li>○ Marine turtles – <a href="#">Appendix XIV</a></li> <li>○ Seabirds – <a href="#">Appendix XV</a></li> <li>○ Marine mammals - <a href="#">Appendix XVI</a></li> </ul>	<p>SC25.05 (para. 164)</p> <p>SC25.06 (para. 165)</p> <p>SC25.07 (para. 166)</p>	<p>The SC <b>RECOMMENDED</b> 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> <p style="text-align: center;">Marine turtles – <a href="#">Appendix 30</a></p> <p>The SC <b>RECOMMENDED</b> 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> <p style="text-align: center;">Seabirds – <a href="#">Appendix 31</a></p> <p>The SC <b>RECOMMENDED</b> 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> <p style="text-align: center;">Cetaceans – <a href="#">Appendix 32</a></p>		
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WPEB18 Report	WPEB REQUESTS	Update/Progress
WPEB18 (para. 29 & 30)	<p>The WPEB <b>NOTED</b> the spatial and temporal extent of the interactions (including fate and condition at release, for discarded individuals) as recorded for the major ETP species within the ROS database and <b>ACKNOWLEDGED</b> that in some cases (e.g., interaction with cetaceans and seabirds) these are generally coming from those specific fisheries that provide data in a format suitable for extraction and processing.</p> <p>The WPEB <b>RECALLED</b> that while additional ROS information is available to the IOTC Secretariat, this cannot be properly processed due to the original format of submission (e.g., aggregated trip reports provided as Word documents) and <b>REQUESTED</b> that the IOTC Secretariat continue working in close collaboration with all concerned CPCs to get access to finer resolution data (still within the context of Res. 11/04 and taking into account the provisions of Res. 12/02) to further improve the coverage of the information currently in the IOTC ROS database.</p>	Update: <b>Ongoing</b> The Secretariat continues liaising with those CPCs that provided ROS data using non-standard formats to support the adoption of the new ROS data reporting forms presented at the WPDCS in 2022.
WPEB18 (para. 33)	<p>The WPEB <b>THANKED</b> those CPCs who had already submitted these documents and <b>REQUESTED</b> CPCs who had not yet done so to submit their NPOAs to the Secretariat to be uploaded onto the NPOA portal. The WPEB encouraged participants to view these documents</p>	Update: <b>Ongoing</b> The Secretariat continues to follow up with CPCs on the status of their NPOAs. Any new NPOAs brought to the attention of the secretariat have been included in document IOTC-2023-WPEB19-08
WPEB18 (para. 46)	<p>The WPEB <b>REQUESTED</b> CPCs to provide observer data for their longline fisheries following the expected formats of the ROS (e.g., disaggregated ST09) so that they can be incorporated in the regional ROS database.</p>	Update: <b>Ongoing</b> The IOTC Scientific Committee has endorsed the new ROS data reporting forms which are supposed to replace the ST09 format as preferred submission templates. The EU has already started trialing the adoption of the new IOTC ROS forms for both their LL and PS fleets, while other CPCs have requested support to the Secretariat that will be provided in due course.
WPEB18 (para. 110)	<p>The WPEB <b>REQUESTED</b> that the IOTC Secretariat update the draft executive summary for scalloped hammerhead with the latest 2020 catch data.</p>	Update: The data catch in all of the species' executive summaries were updated with the latest 2020 catch data. <b>Complete</b>
WPEB18 (para. 143)	<p>The WPEB also <b>AGREED</b> to communicate the ongoing ecoregion process, its purpose and potential benefits to provide more integrated regional advice, with the rest of the working parties and the SC, as well as to <b>REQUEST</b> that the SC communicate this process to the Commission, in order to receive further feedback and future direction</p>	Update: The SC <b>ENDORSED</b> the proposed refined candidate ecoregions and the development of the proposed pilot projects to evaluate their utility and effectiveness.
WPEB18 (para. 148)	<p>The WPEB <b>DISCUSSED</b> potential mechanisms to progress refining the ecoregion process and the validation of the refined ecoregion proposal derived from the second workshop including the possibility of continuing to work intersessional with the support of workshops. The WPEB <b>REQUESTED</b> future workshops/intersessional meetings to keep refining the ecoregion process, and to revise and contribute to the regional pilot studies to be developed for testing the utility of ecoregions.</p>	Update: <b>Ongoing</b> The Commission endorsed the Scientific Committee's 2022 list of recommendations as its own including those relating to the program of work. This item is included in the WPEB program of work.



<p>WPEB18 (para. 151)</p>	<p>The WPEB <b>NOTED</b> the evidence indicating the increased operation of squid fisheries in the high seas of the Indian Ocean, and particularly in fishing grounds which overlap with areas where tuna purse seine fleets operate, <b>NOTING</b> that this overlap results in bycatch of tuna and tuna-like species in the squid fishery. However, as these fisheries are not managed by IOTC, data on these catches of tuna and tuna-like species are not provided to the IOTC. Therefore, the WPEB <b>RECOMMENDED</b> that the SC <b>RECOMMEND</b> that the Commission request that CPCs report all catches of tuna to the IOTC regardless of the target species of the fishery. The WPEB further <b>REQUESTED</b> that the Compliance Committee seek more information on this fishery from the CPCs.</p>	<p>Update: The SC <b>NOTED</b> the potential for using artificial lights (a visual deterrent) in gillnet fisheries as a potential bycatch mitigation device and the need to test this further via LED trials, which could also determine if such lights might attract unwanted bycatch. However, the SC <b>NOTED</b> that Resolution 16/07 prohibits fishing vessels and other vessels including support, supply and auxiliary vessels to use, install or operate surface or submerged artificial lights for the purpose of aggregating tuna and tuna-like species. However, the SC <b>NOTED</b> that it is not clear if this also applies to gillnets. Therefore, the SC <b>RECOMMENDED</b> that the Commission provide clarification on whether Resolution 16/07 also applies to gillnet fisheries and/or to scientific studies as the current wording is somewhat ambiguous.</p> <p>The Commission <b>NOTED</b> in particular, SC Recommendation 15 that Resolution 16/07 <i>On the use of artificial lights to attract fish</i> (which prohibits using artificial lights for the purpose of aggregating tuna and tuna-like species) <u>does not apply to scientific studies.</u></p>
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