
OUTCOMES OF THE 27TH SESSION OF THE SCIENTIFIC COMMITTEE

PREPARED BY IOTC SECRETARIAT, AUGUST 2025

PURPOSE

To inform participants at the 21st Working Party on Ecosystems and Bycatch (WPEB21) of the recommendations arising from the 27th Session of the IOTC Scientific Committee (SC) held from 2-6 December 2025, specifically relating to the work of the WPEB.

BACKGROUND

At the 27th Session of the SC, the SC noted and considered the recommendations made by the WPEB in 2024 that included: recommendations arising from the shark mitigation workshop; asking the SC to provide clarification on the nature of workshop and working party data preparatory meetings and their capacity to submit recommendations directly to the SC; and asking the SC to consider endorsing a revision to the live release handling procedures developed for mobulids.

There were detailed discussions around the recommendations from the shark mitigation workshop. The SC noted the comprehensive research review summary table and recommended the Commission to consider this table.

Other discussions related to: the process of revising best practices on branch line weighting; poor species level data for marine turtles; and holding a bycatch mitigation in gillnets workshop. The SC also noted the management advice arising from the shortfin mako assessment conducted in 2024.

Based on the recommendations arising from the WPEB20, the SC27 adopted a set of recommendations, provided in **Appendix A** of this paper. The recommendations contained in **Appendix A** were provided to the Commission for consideration at its 29th Session which was held in April 2025.

In addition, the SC27 reviewed and endorsed a Program of Work for the WPEB, including a revised assessment schedule, as detailed in **Appendix B**. A separate paper (IOTC-2025-WPEB21(AS)-09) will outline the review and development process for a Program of Work for the WPEB for the next four years (2026–2030).

DISCUSSION

In addition to the recommendations outlined in **Appendix A** and **Appendix B** the following extracts from the SC27 Report (IOTC-2024-SC27-R[E]) are provided here for the consideration and action of the WPEB20:

Seabird line weighting best practices

(para. 64) **NOTING** the presentation to the WPEB of the recently revised ACAP best practices which included sink rates in the minimum standards for branch line weighting, the SC **NOTED** that there are currently no guidelines for measuring sink rates and further **NOTED** that the WPEB does not have the capacity to develop guidelines on its own for measuring these sinking rates and so will be relying on ACAP to develop these guidelines. The SC **NOTED** that the WPEB committed to examining the suitability and applicability of such guidelines when these have been made available in order to conduct testing on sinking rates of various weighted branchlines used within the fleets of IOTC.

Data issues

(para. 65) The SC **NOTED** the concern by some CPCs that there is very poor data at a species level for marine turtles incidentally caught in IOTC fisheries in general and **SUGGESTED** that CPCs prioritise collecting and providing these data at species level.

Bycatch mitigation

(para. 66) **NOTING** that the WPEB included holding a workshop on bycatch mitigation in gillnet fisheries in its program of work, the SC **NOTED** an offer from Pakistan to hold this workshop in conjunction with other key gillnet CPCs.

Longline bycatch mitigation measures workshop

(para. 82) The SC **NOTED** the Commission request to relevant working parties and the Scientific Committee to provide advice to the Commission on technical and mitigation measures to strengthen the conservation of sharks, in particular vulnerable species, including how to reduce the impact of tuna fisheries. In this regard, the Commission request included a specific request for advice regarding “the use of wire trace as branch lines or leaders and the use of branch lines running directly off the longline floats or drop lines, known as shark lines”.

(para. 83) The SC **NOTED** that the WPEB conducted a comprehensive research review pertaining to different potential shark mitigation options and produced a summary table listing the strengths and weaknesses of possible mitigation measures focused on longline gear, including limiting the use of wire trace as branch lines or leaders and shark lines (in Appendix VI of WPEB(DP) Report). The SC **ACKNOWLEDGED** that most of the existing research on this topic comes from the Pacific and Atlantic Oceans and that the information is currently scarce in the Indian Ocean. The SC **REQUESTED** that the WPEB and WPSE evaluate the potential impacts of limiting wire leader and shark lines on fleet operation and the potential social and economic impacts in the Indian Ocean. In addition, the SC **ENCOURAGED** CPCs to conduct region specific analyses on these mitigation methods. The SC **RECOMMENDED** that the Commission consider the research from the summary tables (Appendix VI of WPEB(DP) Report) should they wish to consider additional mitigation measures to strengthen the conservation of vulnerable sharks. The WPEB literature review highlighted that a prohibition on the use of wire leaders and shark lines by longline and other fisheries operating in the IOTC would likely result in a reduction in both the observed catch and the fishing mortality of shark species, particularly in situations where the use of wire leaders and shark lines are common. The SC also considered that further investigation on mitigation measures should be continued.

(para. 84) The SC **NOTED** that the summary table was produced during the Bycatch Mitigation Workshop held as a part of the WPEB data preparatory meeting for shortfin mako stock assessment. The SC **NOTED** that the WPEB data preparatory meeting recommended to the SC that additional mitigation measures such as, but not limited to, the non-use of wire leaders and shark lines be considered. The SC also **NOTED** that the WPEB reviewed this recommendation during the main meeting but could not reach an agreement. At present there are no clear guidelines from the SC on whether recommendations from a workshop or WP DP meeting (including a workshop) can go directly to the SC. This is a common issue shared by all WPs, not only to the WPEB, and as such the SC is presently developing its guidelines regarding such procedures.

Shortfin mako shark stock assessment

(para. 85) The SC **NOTED** that an assessment for shortfin mako shark was conducted for the first time this year. The SC **NOTED** that it is a data-limited assessment and that it is not possible to assess the stock with a high degree of certainty at present but that despite the difficulties and issues raised, the WPEB had **AGREED** that this is an appropriate stock assessment, suitable to provide management advice on stock status and projections for future catches.

(para. 86) Considering the characterized uncertainty, and evidence available in 2024, the shortfin mako shark stock is considered to be **overfished** and **subject to overfishing**.

Running of the working party

(para. 68) The SC **NOTED** that the work of the WPEB was more challenging this year due to the requests to provide advice to the Commission in relation to technical measures and mitigation approaches for sharks. This led to the Secretariat and Chair organizing a focused workshop within the WPEB that drew together experts on this issue with relevant papers being presented and considered by the group.

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

(para. 69) The SC **NOTED** paper IOTC–2024–SC27–06 which provided the SC with the opportunity to update and comment on the current 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, by each IOTC CPC.

(para. 70) The SC **RECOMMENDED** that the Commission note the current status of development and implementation of National Plans of Action (NPOAs) for sharks and seabirds, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations, by each CPC as provided in Appendix 6, recalling that the IPOA-Seabirds and IPOA-Sharks were adopted by the FAO in 1999 and 2000, respectively, and recommended the development of NPOAs.

(para. 71) The SC **RECALLED** the request from WPEB15 in 2019 for the Secretariat to provide links in the NPOA portal on the IOTC website (<http://iotc.org/science/status-of-national-plans-of-action-and-fao-guidelines>) to the actual plan documents. The SC **NOTED** that work is being done to collect these documents from CPCs and thanked those who had already submitted them.

(para. 72) The SC **REQUESTED** that CPCs submit their NPOA to Secretariat for upload onto the NPOA portal.

(para. 73) The SC **NOTED** that there have been small revisions to the previous update on NPOAs in 2023 including the drafting of revisions of NPOAs by some CPCs and updates on the progress on the development of NPOAs by other CPCs.

Other matters

(para. 87) The SC **NOTED** the revised handling and release guidelines for mobulids endorsed by the WPEB, and **RECOMMENDED** that the Commission consider revising the live release handling procedures provided in Annex 1 of Resolution 19/03. The SC **NOTED** that further development of the guidelines for gillnets is required and that this will be done intersessionally with the aim of reporting to the WPEB21. The details of the suggested revisions to the handling procedures can be found in IOTC-2024-WPEB20(AS)-R.

(para. 88) The SC **NOTED** paper [IOTC-2024-SC27-11Rev1](#) Regarding the operation of Working Party of Ecosystem and Bycatch.

(para. 89) The SC **NOTED** the concerns raised about the preparation and operation of data preparatory meetings that contained the longline bycatch mitigation workshop within its agenda and in particular the handling of recommendations arising from a shark mitigation measure workshop that was held during the WPEB's data preparatory meeting in 2024. The SC **AGREED** that official guidelines for these data preparatory meetings would be beneficial to avoid any confusion on this topic in the future.

(para. 90) **NOTING** the increased workload of the WPEB in recent years, the SC **NOTED** the need to improve the efficiency and effectiveness in meeting operations allowing adequate time for discussion on the priority topics, including focusing the agenda more specifically on the priority topics for that year, prioritization of topics and documents, sharing a summary of requests from the SC/COM to each WP well in advance of meeting, and improved scheduling of the work and work plan. The SC also **NOTED** however that the scheduled data preparatory meetings can offer an opportunity to address topics that may require more time than is available during the full assessment meeting, while further **NOTING** that in such case, the role and mandate of the data preparatory meeting should be defined and notified before the meeting.

(para. 91) As the workings of data preparatory meetings are relevant to all working parties, other discussions relating to this paper can be found in **Section 7.8.6**, other matters for topics common to all working parties.

APPENDICES

Appendix A: Consolidated set of recommendations of the 27th Session of the Scientific Committee to the Commission, relevant to the Working Party on Ecosystems and Bycatch.

Appendix B: Schedule of stock assessment for the WPEB (2025-2029)

APPENDIX A

CONSOLIDATED SET OF RECOMMENDATIONS OF THE 27th SESSION OF THE SCIENTIFIC COMMITTEE TO THE COMMISSION RELEVANT TO THE WORKING PARTY ON ECOSYSTEMS AND BYCATCH

Extract of the Report of the 27th Session of the Scientific Committee

(IOTC-2024-SC27-R[E]; Appendix 39, Page 217)

Sharks

SC27.04 (para. 179) 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:

Blue shark (*Prionace glauca*) – [Appendix 23](#)

Oceanic whitetip shark (*Carcharhinus longimanus*) – [Appendix 24](#)

Scalloped hammerhead shark (*Sphyrna lewini*) – [Appendix 25](#)

Shortfin mako shark (*Isurus oxyrinchus*) – [Appendix 26](#)

Silky shark (*Carcharhinus falciformis*) – [Appendix 27](#)

Bigeye thresher shark (*Alopias superciliosus*) – [Appendix 28](#)

Pelagic thresher shark (*Alopias pelagicus*) – [Appendix 29](#)

porbeagle shark (*Lamna nasus*) – [Appendix 30](#)

Marine turtles

SC27.05 (para. 180) 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:

Marine turtles – [Appendix 31](#)

Seabirds

SC27.06 (para. 181) 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:

Seabirds – [Appendix 32](#)

Marine Mammals

SC27.07 (para. 182) 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:

Cetaceans – [Appendix 33](#)

GENERAL RECOMMENDATIONS TO THE COMMISSION

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

SC27.12 (para. 70) The SC **RECOMMENDED** that the Commission note the current status of development and implementation of National Plans of Action (NPOAs) for sharks and seabirds, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations, by each CPC as provided in [Appendix 6](#), recalling that the IPOA-Seabirds and IPOA-Sharks were adopted by the FAO in 1999 and 2000, respectively, and recommended the development of NPOAs.

LONGLINE BYCATCH MITIGATION MEASURES WORKSHOP

SC27.13 (para. 83) The SC **NOTED** that the WPEB conducted a comprehensive research review pertaining to different potential shark mitigation options and produced a summary table listing the strengths and weaknesses of possible mitigation measures focused on longline gear, including limiting the use of wire trace as branch lines or leaders and shark lines (in Appendix VI of WPEB(DP) Report). The SC **ACKNOWLEDGED** that most of the existing research on this topic comes from the Pacific and Atlantic Oceans and that the information is currently scarce in the Indian Ocean. The SC **REQUESTED** that the WPEB and WPSE evaluate the potential impacts of limiting wire leader and shark lines on fleet operation and the potential social and economic impacts in the Indian Ocean. In addition, the SC **ENCOURAGED** CPCs to conduct region specific analyses on these mitigation methods. The SC **RECOMMENDED** that the Commission consider the research from the summary tables (Appendix VI of WPEB(DP) Report) should they wish to consider additional mitigation measures to strengthen the conservation of vulnerable sharks. The WPEB literature review highlighted that a prohibition on the use of wire leaders and shark lines by longline and other fisheries operating in the IOTC would likely result in a reduction in both the observed catch and the fishing mortality of shark species, particularly in situations where the use of wire leaders and shark lines are common. The SC also considered that further investigation on mitigation measures should be continued.

OTHER MATTERS

SC27.14 (para. 87) The SC **NOTED** the revised handling and release guidelines for mobulids endorsed by the WPEB, and **RECOMMENDED** that the Commission consider revising the live release handling procedures provided in Annex 1 of Resolution 19/03. The SC **NOTED** that further development of the guidelines for gillnets is required and that this will be done intersessionally with the aim of reporting to the WPEB21. The details of the suggested revisions to the handling procedures can be found in IOTC-2024-WPEB20(AS)-R.

NATIONAL REPORTS FROM CPCs

SC27.08 (para. 34) The SC **RECOMMENDED** that the Compliance Committee and Commission note the lack of compliance by 3 Contracting Parties (Members) that did not submit a National Report to the Scientific Committee in 2024, **NOTING** that the Commission agreed that the submission of the annual reports to the Scientific Committee is mandatory.

SUMMARY DISCUSSION OF MATTERS COMMON TO WORKING PARTIES (CAPACITY BUILDING ACTIVITIES – STOCK ASSESSMENT COURSE; CONNECTING SCIENCE AND MANAGEMENT, ETC.)

Invited Expert(s) at the WP meetings

SC27.25 (para. 159) Given the importance of external independent review for working party meetings, the SC **RECOMMENDED** the Commission continues to allocate sufficient budget for invited scientific experts to be regularly invited to scientific working party meetings.

IOTC species identification guides: Tuna and tuna-like species

SC27.26 (para. 165) The SC reiterated its **RECOMMENDATION** that the Commission allocates budget towards continuing the translation and printing of the IOTC species ID guides so that hard copies of the identification cards can continue to be printed as many CPC scientific observers, both on board and at port need to have hard copies.

Chairpersons and Vice-Chairpersons of the SC and its subsidiary bodies

SC27.27 (para. 170) The SC **RECOMMENDED** that the Commission note and endorse the Chairpersons and Vice-Chairpersons for the SC and its subsidiary bodies for the coming years, as provided in [Appendix 7](#).

Other matters

SC27.28 (para. 174) The SC **NOTED** the occasional need of technical workshops, corresponding to a request by the SC or Commission. The SC **RECOMMENDED** that:

- Technical workshops are not to be nested within Working Party meetings
- The terms of reference for such technical workshops should be established ahead of time to clarify their role and decision-making process, including whether they can make direct recommendations to the SC.

PROGRAM OF WORK AND SCHEDULE OF WORKING PARTY AND SCIENTIFIC COMMITTEE MEETINGS

Consultants

SC27.29 (para. 199) **NOTING** the highly beneficial and relevant work done by IOTC stock assessment consultants in previous years, the SC **RECOMMENDED** that the engagement of consultants be continued for each coming year based on the Program of Work. Consultants will be hired to supplement the skill set available within the IOTC Secretariat and CPCs.

Data preparatory meetings and Hybrid meetings

SC27.30 (para. 201) **ACKNOWLEDGING** that holding data preparatory meetings prior to stock assessments is considered to be best practice (as identified by the yellowfin stock assessment external reviewer, the WPTT and the WPDCS) and noting that since 2019 data preparatory meetings were successfully held for the WPTmT, WPTT and WPEB, the SC **AGREED** to continue the practice of having data preparatory meetings in addition to stock assessment meetings for the major IOTC species. The SC **RECOMMENDED** that data preparatory meetings could continue to be held virtually so as not to increase the travel and costs required for the already full IOTC timetable of meetings.

SC27.31 (para. 202) The SC **NOTED** that there had been a few teething problems holding meetings in a hybrid format in 2023 and 2024, especially related to the costs associated with the audio-visual equipment required, as well as the issues associated with ensuring the equipment was suitable to ensure full participation of both those in person as well as those connecting virtually. However, the SC **AGREED** on the utility of facilitating both in-person and virtual participation at future meetings to ensure increased participation and reduce the logistical costs for many CPCs and observers. As such, the SC **RECOMMENDED** that future Scientific Committee meetings continue to be held in a hybrid format, as well as working parties if possible. The SC further **RECOMMENDED** that all presentations at

these meetings be made in person to ensure the aforementioned issues did not adversely affect the quality of the advice being provided.

SC27.32 (para. 203) The SC **NOTED** all IOTC working party meetings this year (except the WPDCS and WPSE) were held in Seychelles, as there were no offers to host them. The SC meeting was originally planned in Seychelles but this was not possible due to unavailability of the venue. There has been an increasing reluctance for CPCs to offer to host IOTC scientific working party and SC meetings. This reluctance may be due to budget constraints, as well as the logistical burdens of Hybrid meetings. The SC **NOTED** that there has been a number of issues when hosting meetings in Seychelles (e.g., high cost). The SC **RECOMMENDED** this issue be discussed at the Commission in order to find a way forward.

IOTC Scientific Strategic Research Plan

SC27.33 (para. 208) The SC **AGREED** that the draft updated IOTC Strategic Science Plan 2025–2029 will be distributed to Heads of Delegation from each CPC for comment during early 2025. Thereafter comments will be collated and consolidated and another version sent to CPCs for final review. Pending agreement of CPCs, and noting that the IOTC Strategic Science Plan would be a dynamic document that would change over time, the SC **RECOMMENDED** that the revised draft of the IOTC Strategic Science Plan 2025–2029 be tabled at the Commission meeting in 2025.

REVIEW OF THE DRAFT, AND ADOPTION OF THE REPORT OF THE 26TH SESSION OF THE SCIENTIFIC COMMITTEE

SC27.34 (para. 214) The SC **RECOMMENDED** that the Commission consider the consolidated set of recommendations arising from SC25, provided at [Appendix 39](#).

APPENDIX B**ASSESSMENT SCHEDULE FOR IOTC SPECIES AND SPECIES OF INTEREST FROM 2024-2028***Extract of the Report of the 27th Session of the Scientific Committee**(IOTC-2024-SC27-R; Appendix 36, Page 198)*

The SC **ADOPTED** a revised assessment schedule, ecological risk assessment and other core projects for 2025–29, for the tuna and tuna-like species under the IOTC mandate, as well as the current list of key shark species of interest, as outlined in Appendix 37. (IOTC-2024-SC27-R[E], Para. 198).

Working Party on Ecosystems and Bycatch					
Species	2025	2026	2027	2028	2029
Blue shark	Data preparatory meeting Full assessment	-	–	–	–
Oceanic whitetip shark	Indicator analysis	-	Data preparation	–	Data preparation
Scalloped hammerhead shark	–	Data preparatory meeting Assessment*	–	–	–
Shortfin mako shark	–	-	Data preparatory meeting Full assessment		-
Silky shark	–	Assessment*	-	Assessment*	-
Bigeye thresher shark	–	Assessment*	–	-	–
Pelagic thresher shark	–	Assessment*	–	-	–
Porbeagle shark	–	-	– Assessment*		–
Mobulid Rays	–	-	Interactions/ Indicators	-	Interactions/ Indicators
Marine turtles	Indicators	-	–	Indicators	–
Seabirds	Development of draft workplan	Review of mitigation measures in Res. 23/07	–	–	Development of draft workplan
Marine Mammals		-	–	–	

Ecosystem Approach to Fisheries Management (EAFM) approaches	Ecoregions pilot study ongoing				
Series of multi-taxa bycatch mitigation workshops	Focus: tbd	Focus: tbd	Focus: tbd	Focus: tbd	Focus: tbd
Shark research plan update		Shark research plan update workshop			

* Including data poor stock assessment methods; Note: the assessment schedule may be changed dependent on the annual review of fishery indicators, or SC and Commission requests.

NOTE: (i) the “indicator analysis” is a simple analysis to provide guidance on the stock status based on fishery data such as CPUE, catch, and size frequency data ;(ii) the “full stock assessment” is an assessment to provide the stock status and fishing pressure based on a stock assessment model such as stock synthesis or production model; (iii) the “data preparatory” is a the submission and review by the WP of the fishery data as well as biological parameters for the upcoming stock assessment.