
PREVIOUS DECISIONS OF THE COMMISSION

PREPARED BY: IOTC SECRETARIAT, 26 OCTOBER 2023

PURPOSE

To ensure the Scientific Committee (SC) is aware that in addition to the requests made to the SC by the Commission during its 27th Session, there are a number of decisions in the form of previous Resolutions that require a response from the Scientific Committee.

BACKGROUND

The Commission has considered and adopted a range of Conservation and Management Measures (CMM) in the past that provided clear directions to the Scientific Committee (SC). While the SC has responded to most, several remain outstanding or are ongoing. These are outlined below:

Resolution 17/05 On the conservation of sharks caught in association with fisheries managed by the IOTC

(para. 9) The IOTC Scientific Committee shall request that the IOTC Working Party on Ecosystems and Bycatch continue its work on identifying and monitoring the status of sharks until such time as comprehensive assessments are possible for all relevant shark species/groups. In particular, the IOTC Working Party on Ecosystems and Bycatch will establish the Terms of Reference for the Commission to establish a long term-project on sharks in IOTC, with the aim to ensure the collection of data required for performing reliable stock assessments for key shark species. The project will include:

- a) the identification of data gaps for key shark species in IOTC;
- b) the collection of relevant data, including through direct contacts with CPC national administrations, research institutes and stakeholders;
- c) any other activity that could contribute to improving the collection of data required for performing stock assessments of key shark species in IOTC.

The IOTC Scientific Committee will incorporate results of the project in its reports on sharks and based on progress achieved will propose a timeframe for performing stock assessment of key sharks species. CPCs are encouraged to contribute financially to the implementation of the project.

(para. 10) The IOTC Scientific Committee shall review annually the information reported by CPCs pursuant to this Resolution and, as necessary, provide recommendations to the Commission on ways to strengthen the conservation and management of sharks within IOTC fisheries.

(para 11) CPCs shall undertake research to:

- a) identify ways to make fishing gears more selective, where appropriate, including research into the effectiveness of prohibiting wire leaders;
- b) improve knowledge on key biological/ecological parameters, life-history and behavioural traits, migration patterns of key shark species;
- c) identify key shark mating, pupping and nursery areas; and
- d) improve handling practices for live sharks to maximise post-release survival

Resolution 15/10 On target and limit reference points and a decision framework

(para.2) Where the IOTC Scientific Committee considers that MSY-based reference points cannot be robustly estimated, biomass limit reference points will be set at a rate of B₀. Unless the IOTC Scientific Committee advises the Commission of more suitable limit reference point for a particular species, by default, the interim BLIM will be set at 0.2 B₀ and fishing mortality rate limit reference point at F_{0.2} B₀ (the value

corresponding to this biomass limit reference point). These interim limit reference points will be reviewed no later than 2018.

(Annex 1: para. 4) The initial assessment described in points 2 and 3 shall be completed, where possible, for:

- b) Assessments for yellowfin tuna, bigeye tuna and swordfish to be completed by 2017 and presented to the Commission meeting in 2018.

Resolution 12/04 *On the conservation of marine turtles*

(para. 17) The IOTC Scientific Committee shall annually review the information reported by CPCs pursuant to this measure and, as necessary, provide recommendations to the Commission on ways to strengthen efforts to reduce marine turtle interactions with IOTC fisheries.

Resolution 12/09 *On the conservation of thresher sharks (Family Alopiidae) caught in association with fisheries in the IOTC area of competence*

(para. 7) Scientific observers shall be allowed to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections) from thresher sharks that are dead at haulback, provided that the samples are part of the research project approved by the IOTC Scientific Committee (or IOTC Working Party on Ecosystems and Bycatch (WPEB)). In order to obtain the approval, a detailed document outlining the purpose of the work, number and type of samples intended to be collected and the spatio-temporal distribution of the sampling work must be included in the proposal. Annual progress of the work and a final report on completion of the project shall be presented to the IOTC WPEB and the IOTC Scientific Committee.

Resolution 19/01 *On an interim plan for rebuilding the Indian Ocean Yellowfin tuna stock in the IOTC area of competence*

(para 22) CPCs are encouraged to increase their observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human) verified by the IOTC Scientific Committee by 2023.

(para 28) The Scientific Committee via its Working Party on Tropical Tunas shall implement the “Workplan to improve current assessment of yellowfin tuna” and shall advise the Commission the financial and administrative requirements to further strengthen the work undertaken to minimize the issues and complexities regarding yellowfin tuna stock assessment.

Resolution 19/02 *Procedures on a fish aggregating devices (FADs) management plan*

(para. 19) CPCs are encouraged to conduct trials using biodegradable materials to facilitate the transition to the use of only biodegradable material for DFADS construction by their flagged vessels. The results of such trials shall be presented to the Scientific Committee who shall continue to review research results on the use of biodegradable material on FADs and shall provide specific recommendations to the Commission as appropriate

(para. 23) The IOTC Scientific Committee will analyse the information, when available, and provide scientific advice on additional FAD management options for consideration by the Commission, including recommendations on the number of FADs to be operated, the use of biodegradable materials in new and improved FADs design. When assessing the impact of FADs on the dynamic and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned FADs (i.e. FADs without a beacon or which have drifted outside the fishing zone).

(para.27) This resolution shall be reviewed by the Commission, at the latest, at its session in 2022, based on recommendations from the Scientific Committee.

Resolution 19/03 *On the conservation of mobulid rays caught in association with fisheries in the IOTC area of competence*

- (para. 11) CPCs, unless clearly demonstrate that intentional and/or incidental catches of mobulids do not occur in their fisheries, shall develop, with the assistance from the IOTC Secretariat where required, sampling plans for the monitoring of the mobulid rays catches by the subsistence and artisanal fisheries. The sampling plans, including their scientific and operational rationale, shall be reported in the national scientific reports to the Scientific Committee, starting in 2020, which will provide its advice on their soundness by 2021 at the latest. The sampling plans, where required, will be implemented by the CPCs from 2022 onward taking into account the Scientific Committee advice.
- (para. 13) The IOTC Scientific Committee shall review the status of *Mobula* spp. in the IOTC Area of Competence and provide management advice to the Commission in 2023 also to identify possible hot-spots for conservation and management of mobulids within and beyond EEZs. Moreover, the IOTC Scientific Committee is requested to provide, whenever considered adequate on the basis of evolving knowledge and scientific advice, further improvements to the handling procedures detailed in Annex 1.
- (para. 14) Scientific observers shall be allowed to collect biological samples of mobulid rays caught in the IOTC Area of Competence that are dead at haul-back, provided that the samples are a part of a research project approved by the IOTC Scientific Committee. In order to obtain the approval, a detailed document outlining the purpose of the work, number of samples intended to be collected and the spatio-temporal distribution of the sampling effect must be included in the proposal. Annual progress of the work and a final report on completion shall be presented to the SC.

Resolution 21/01 *On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC area of competence.*

- (para. 13) Any CPC who submits updated catch histories of yellowfin tuna in accordance with IOTC resolution 15/01 and verified by the secretariat and the IOTC Scientific Committee, shall have a right to access yellowfin tuna in accordance with the limits prescribed in the Resolution.
- (para. 17) The tropical tuna data submitted by CPCs in accordance with Resolution 15/01 “On the recording of catch and effort data by fishing vessels in the IOTC area of competence” and Resolution 15/02 “*Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)*” shall be reviewed by the Secretariat and discussed by the Scientific Committee for possible inconsistencies. In such cases, the Scientific Committee shall provide the rationale of the detected inconsistencies and justify the choice of the best solution available with regard the scientific analysis to be carried out. Data used for catch limit calculations shall be based on the data reviewed, including possible estimates, by the Secretariat.
- (para. 23) CPCs are encouraged to increase their observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human) verified by the IOTC Scientific Committee by 2023.
- (para. 25) The IOTC Secretariat under advice of the Scientific Committee shall prepare and a table of allocated catch limits disaggregated as per the conditions set out in paragraphs 5-11 for following year, in December of the current year.
- (para. 30) The IOTC Scientific Committee via its Working Party on Tropical Tunas shall implement the “Workplan to improve current assessment of yellowfin tuna” and shall advice the Commission the financial and administrative requirements to further strengthen the work undertaken to minimize the issues and complexities regarding yellowfin tuna stock assessment.
- (para. 31) The IOTC Scientific Committee and its Working Parties shall prioritise the work on the yellowfin tuna management procedure and to provide advice to the Technical Committee on Management Procedures and to enable the Commission to adopt the yellowfin tuna management procedure at the earliest opportunity.
- (para. 32) The Scientific Committee via its Working Party on Tropical Tunas shall undertake evaluation of the effectiveness of the measures detailed in this Resolution, taking into account all sources of fishing mortality possible aiming at returning and maintaining biomass levels at the Commission’s target level.

Resolution 22/03 *On a Management Procedure for Bigeye Tuna in the IOTC Area of Competence*

- (para. 4) The Scientific Committee shall run the MP and advise the Commission of the outcome, including a recommended TAC and any advice on exceptional circumstances in accordance with the Commission endorsed Guidelines for the Provisions of Exceptional Circumstances for IOTC MPs as documented in Appendix 6a of IOTC-2021-SC24-R.
- (para. 12) The Scientific Committee is requested to review, and if necessary, further develop and refine (not later than 2024), the exceptional circumstances guidelines (adopted by SC24 and S26), taking into account, inter alia, the need for an appropriate balance between specificity versus flexibility in defining exceptional circumstances, and the appropriate level of robustness to ensure that exceptional circumstances are triggered only when necessary.

Resolution 23/01 On Management of Anchored Fish Aggregating Devices (AFADs)

- (para. 16) The IOTC Executive Secretary in consultation with the Scientific Committee shall develop a best practice guideline for construction of AFADs and submit it to the Commission for adoption no later than the 29th Annual Session of the IOTC.
- (para. 17) The IOTC Scientific Committee shall analyse further information, when available, and provide advice on existing, additional or alternative AFAD management options for sustainable fisheries.
- (para. 18) The IOTC Scientific Committee shall, no later than at its annual session in 2025, provide a set of relevant indicators that would allow monitoring the effects of AFAD fisheries and assessing the efficiency of existing/additional/alternative AFAD management options.
- (para. 19) The IOTC Scientific Committee shall provide scientific advice by assessing the impact of fishing using AFADs on juvenile tuna mortality and provide advice to the Commission.

Resolution 23/03 On Establishing a Voluntary Fishing Closure in the Indian Ocean for the Conservation of Tropical Tuna's

- (para. 3) The IOTC Scientific Committee shall provide advice and recommendations no later than 31st December 2023 on appropriate fishing closures applicable to all fishing gears. These recommendations need to consider the area, closure period and any other details, with the objective of achieving a high probability of reducing fishing mortality of juvenile tropical tuna, in particular bigeye and yellowfin tuna. If the IOTC Scientific Committee concludes that it does not currently possess access to sufficient scientific data to provide recommendations to the Commission, the SC shall provide recommendations relating to the data necessary for science-based recommendations for the information of the Commission.
- (para. 4) In producing its advice and recommendations, the IOTC Scientific Committee shall take into account, inter alia:
- a) available IOTC fisheries data;
 - b) fishing behaviours/ patterns in the Indian Ocean, both historically and those anticipated as a consequence of the implementation of the closure or any new management measures.

Resolution 23/04 On Establishing Catch Limits for Bigeye Tuna in the IOTC Area of Competence

- (para. 13) The IOTC Scientific Committee shall conduct a comparative analysis of the contribution of all fishing gears to the mortality of bigeye tuna, which shall include both absolute and relative contributions to mortality and stock depletion.
- (para. 14) The IOTC Scientific Committee shall develop a table as shown in Annex 2 that quantifies the expected impact on maximum sustainable yield (MSY) and SSB_{msy} for bigeye tuna resulting from replacing fishing mortality/catches of any major fishing gear/fishery (e.g., Longline, DFAD fisheries, AFAD fisheries, Purse seine on free school, other fisheries) for consideration by the Commission at its 2025 Session. The IOTC Scientific Committee shall also provide advice on FAD management options, including on, limits on FADs sets, that may be necessary to achieve a replacement of fishing mortality of FAD fisheries with free school fisheries. This analysis shall be conducted for DFADs and AFADs fleets separately.

Resolution 23/06 On the Conservation of Cetaceans

- (para. 12) The IOTC Scientific Committee shall review information on the status of cetaceans in the IOTC area of competence and provide recommendation or advice to the Commission no later than 2025 to identify

appropriate measures that Commission shall take to mitigate negative effects of the interactions with cetaceans by the IOTC fisheries.

Resolution 23/07 On Reducing the Incidental Bycatch of Seabirds in Longline Fisheries

(para. 8) The Scientific Committee will continue to review and make recommendations to the Commission on advancements and best practice in seabird bycatch mitigation as they become available. This will include, by 2024 at the latest, developing advice to the Commission on best practice branch line weighting.

Resolution 23/08 On Electronic Monitoring Standards for IOTC Fisheries

(para. 5) The Scientific Committee shall, no later than 2024, review the ROS minimum required data fields to

- a) identify any fields that are logistically difficult for EM and/or human observers to collect, respectively; and
- b) provide advice and recommendations to the Commission on the need and use of those identified fields for scientific purposes, and their collection and reporting status (i.e. mandatory, non-mandatory etc.).
- c) Discuss and provide advice to the Commission on the potential need to develop a separate EM ROS minimum data fields list.

Resolution 24/01: On climate change as it relates to the Indian Ocean Tuna Commission.

(para. 3) The IOTC Scientific Committee, when requested by the Commission, shall consider and where possible, advise on the potential impacts of climate change on highly migratory fish stocks and any related impacts on Developing States and Small Island Developing States.

(para. 4) The IOTC Scientific Committee shall consider how climate change and fishing activities may be related and provide advice to the Commission on the potential implications for these relationships for the conservation and management of tuna and associated stocks.

(para. 5) To support and accelerate consideration of climate change issues in the Commission:

- (a) The Working Party on Ecosystems and Bycatch (WPEB) shall include climate change as a standing agenda item of its regular meeting, to include an assessment of the impacts (actual and potential) of climate change on IOTC fisheries. On that basis, the WPEB shall provide information or advice to the IOTC Scientific Committee on an annual basis in line with its current reporting processes.
- (b) The Working Party on Socio-Economics (WPSE) shall assess the socio-economic impacts (actual or potential) of climate change on IOTC fisheries. On that basis, the WPSE shall provide information or advice to the Commission and the IOTC Scientific Committee.
- (c) All other Working Parties reporting to the IOTC Scientific Committee shall include climate change as a standing agenda item at their regular meetings and provide any relevant information or advice to the IOTC Scientific Committee in line with their current reporting processes.
- (d) The IOTC Secretariat shall continue its work to develop and keep up to date, a dedicated IOTC webpage on climate change and its impacts on IOTC fisheries.

(para. 10) The IOTC Scientific Committee shall:

- (a) At its annual meetings, review and consider any climate change information and advice from the WPEB, and from any other bodies or sources as relevant;
- (b) On an annual basis, provide advice to the Commission based on its review and consideration of the information and advice in accordance with subparagraph a), and suggest any further steps that may be taken to integrate climate change considerations and analyses into its deliberations and decision-making processes;
- (c) at its 28th annual meeting in 2025, review and propose amendments to its own Terms of Reference and those of its subsidiary bodies to meet the scientific needs stipulated in this Resolution.

Resolution 24/02 On Management of Drifting Fish Aggregating Devices (DFADs) in the IOTC Area of Competence.

(para. 48) The IOTC Scientific Committee shall analyse further information, when available, and provide scientific advice on existing, additional or alternative DFAD management options for sustainable fisheries to be submitted for consideration by the Commission.

(para. 49) The IOTC Scientific Committee shall provide scientific advice to the Commission by:

- (a) assessing the impact that fishing gears or fishing using DFADs have on juvenile mortality and provide adequate advice to the Commission. This assessment shall include, but not be limited to a comparative analysis of the contribution of all fishing gears to the juvenile mortality of targeted tunas, related impacts on the MSY levels and any other advice to recover or maintain stock size above levels which can produce the MSY and keep the risk of violating/exceeding limit reference points to a low probability;
 - (b) providing an analysis of the efficiency of current active buoy limits and examining the potential efficiency of alternative/complementary options to limit the number of DFADs at sea. This will include, among other options, an advice on the definition and expected effectiveness of a measure to control the number of sets under DFAD.
- (para. 50) In producing its advice and recommendations, the IOTC Scientific Committee shall take into account, inter alia:
- (a) available IOTC fisheries data;
 - (b) experiences of implementing similar management measures with similar objectives, including DFAD closures, DFAD Register, and DFAD-MS from other RFMOs, if any; and
 - (c) fishing behaviors/patterns in the Indian Ocean, both historically and those anticipated as a consequence of the implementation of any new management measures, including a DFAD closure.

Resolution 24/04 On a Regional Observer Scheme. This Resolution supersedes Resolution 22/04.

- (para. 13) CPCs shall provide to the IOTC Secretariat and the IOTC Scientific Committee, annually in their national scientific reports, a description of the protocols supporting their observer programs and sampling schemes mentioned in paragraphs 3, 4, 6 and 9, the number of fishing vessels and of fishing effort sampled, as well as the coverage achieved by gear type in accordance with the provisions of this Resolution.
- (para. 15) The IOTC Scientific Committee shall update in 2024 the IOTC ROS Observer Manual and the IOTC Observer Forms used for reporting (including minimum data fields) and provide advice on a training program.

Resolution 24/06 On a Ban on Discards of Bigeye Tuna, Skipjack Tuna, Yellowfin Tuna, and Non-Targeted Species Caught by Vessels in the IOTC Record of Authorisation that Operate in the IOTC Area of Competence.

- (para. 7) The IOTC Scientific Committee, the IOTC Working Party on Tropical Tunas, and the IOTC Working Party on Ecosystems and Bycatch shall as a matter of priority act on its recommendation in the Report of the 18th Session of the IOTC Scientific Committee and undertake work to examine the benefits of retaining non-targeted species catches, other than those prohibited via IOTC Resolution, and present its recommendations to the 29th Annual Session of the Commission. The work should take into account all species that are usually discarded on all major gears, and should look at fisheries that take place both on the high seas and in coastal countries and the feasibility of both retraining on-board and processing of the associated landings.
- (para. 8) This Resolution will be revised, according to the advice of the IOTC Scientific Committee resulting from the review of the IOTC Working Party on Tropical Tunas (for bigeye tuna, skipjack tuna and yellowfin tuna) and of the IOTC Working Party on Ecosystems and Bycatch (for non-target species).

Resolution 24/07 On a Management Procedure for Skipjack in the IOTC Area Of Competence.

- (para. 7) The Scientific Committee shall run the MP and advise the Commission of the outcome, including a recommended TAC and any advice on exceptional circumstances in accordance with the Commission endorsed Guidelines for the Provisions of Exceptional Circumstances for IOTC MPs as documented in Appendix 6a of IOTC-2021-SC24-R.
- (para. 15) The Scientific Committee is requested to review, and if necessary, further develop and refine (not later than 2026), the exceptional circumstances guidelines (adopted by SC27 and S30), taking into account, inter alia, the need for an appropriate balance between specificity versus flexibility in defining exceptional circumstances, and the appropriate level of robustness to ensure that exceptional circumstances are triggered only when necessary.

- (para. 16) As part of the annual evaluation of exceptional circumstances, including the review of relevant new or updated information pertaining to Skipjack tuna, the SC is requested to monitor and evaluate the available indicators of skipjack tuna recruitment and productivity, to inform its advice to the Commission as to the potential need for bringing forward the review of the MP. This will ensure the Commission can take account of changes in recruitment/productivity that might not have been tested specifically by the MSE.
- (para. 17) The Scientific Committee is requested to specifically consider if catches exceed the TAC, as part of the annual evaluation of exceptional circumstances.
- (para. 18) The SC is also requested to investigate approaches to incorporate a multi-species framework into future candidate management procedures and if possible, wider impacts in the ecosystem such as the mortality on associated and dependant species affected by tuna fishing operations i.e. marine turtles, marine mammals, seabirds, sharks and fish species caught incidentally (bycatch).

Resolution 24/08 On a Management Procedure for Swordfish in the IOTC Area Of Competence.

- (para. 4) The Scientific Committee shall run the MP and advise the Commission of the outcome, including a recommended TAC and any advice on exceptional circumstances in accordance with the Commission endorsed Guidelines for the Provisions of Exceptional Circumstances for IOTC MPs as documented in Appendix 6a of IOTC-2021-SC24- R.
- (para. 5) The Commission shall adopt the TAC based on the outcome of the MP, unless the Scientific Committee identifies exceptional circumstances that require consideration of alternate management actions to be taken by the Commission.
- (para. 6) Evidence of exceptional circumstances will be reviewed annually at the Working Party on Billfish and the Scientific Committee. If exceptional circumstances are triggered, then the pre-existing TAC shall remain in place until a new TAC is agreed
- (para. 12) . The SC is also requested to investigate approaches to incorporate a multi-species framework into future candidate management procedures and if possible, wider impacts in the ecosystem such as the mortality on associated and dependent species affected by tuna fishing operations, i.e. marine turtles, marine mammals, seabirds, sharks and fish species caught incidentally (bycatch).

DISCUSSION

The Scientific Committee should address each of the requirements detailed above by providing advice, or alternative commentary for the Commission’s consideration at its 28th Session to be held in 2024.

RECOMMENDATION/S

That the Scientific Committee **NOTE** the requests made by the Commission in each of the Conservation and Management Measures detailed in this paper, and to develop advice to the Commission in response to each request.