

# REVIEW OF CURRENT CONSERVATION AND MANAGEMENT MEASURES RELATING TO ECOSYSTEMS AND BYCATCH

PREPARED BY IOTC SECRETARIAT, AUGUST 2024

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## PURPOSE

To encourage participants at the Working Party on Ecosystems and Bycatch (WPEB20) to review the existing Conservation and Management Measures (CMM) relating to ecosystems and bycatch and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required. At the 28<sup>th</sup> Session of the Commission (S27) held in May 2024, three new CMMs relevant to WPEB were adopted:

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

This Resolution supersedes Resolution 22/01. This Resolution requires that the Commission shall take into account scientific information available from the Scientific Committee and other relevant international processes on the relationship between climate change, tuna fisheries and tuna stocks, bycatch and ecosystems. The SC will 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. Capacity building programs in developing coastal states are also to be supported by the Commission and SC. The SC shall review and consider any climate change information and advice from its working parties and provide advice to the Commission and suggest further steps that may be taken to integrate climate change considerations into its decision-making processes.

### Resolution 24/04 *On a regional observer scheme*

This Resolution supersedes Resolution 22/04. This Resolution supersedes and is based on Resolution 11/04. This resolution puts in place a programme comprising national observer schemes to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area. CPCs are required to cover a minimum of 5% of their operations/sets per year on vessels over 24m in length or vessels of all lengths operating outside of their EEZ. The Resolution provides provisions for the use of Electronic Monitoring Systems (EMS) to complement or substitute for human onboard observers once the EMS standards have been adopted. This revision includes a note saying that CPCs may present a list of implementation plans for alternate data collection to the SC which if endorsed by the SC, may be used to record and report mandatory ROS data requirements for by vessels less than 24m in length fishing exclusively in the CPC's EEZ. The Resolution also includes a requirement for the SC to update the ROS observer manual and observer reporting forms including the minimum data fields and provide advice on a training program.

## BACKGROUND

Ecosystems and bycatch in the Indian Ocean are currently subject to a range of other CMMs adopted by the Commission:

### **SHARKS AND RAYS:**

**Resolution 18/02:** *On management measures for the conservation of blue shark caught in association with IOTC fisheries.* This Resolution requires that CPCs firstly implement data collection programmes that ensure improved reporting of accurate blue shark catch, effort, size and discard data to IOTC in full accordance with the Resolution 15/02. In addition, CPCs are encouraged to undertake scientific research on blue shark that would provide information on key biological/ecological/behavioural characteristics, life-history, migrations, post-release survival and guidelines for safe release and identification of nursery grounds, as well as improving fishing practices. Lastly the Commission shall

consider, at its 2021 meeting, the adoption of conservation and management measures, to be decided taking into account the most recent reported catch information or bycatch mitigation.

**Resolution 17/05:** *On the conservation of sharks caught in association with fisheries managed by IOTC.* This resolution includes minimum reporting requirements for sharks, calls for full utilisation of sharks, encourages the release of live sharks in non-targeted fisheries and includes a ratio of fin-to-body weight for shark fins retained onboard a vessel.

**Resolution 13/06:** *On a scientific and management framework on the Conservation of sharks species caught in association with IOTC managed fisheries.* This Resolution prohibits, as an interim pilot measure, the retention onboard, transshipment, landing or storing any part or whole carcass of oceanic whitetip sharks (*Carcharhinus longimanus*) by all vessels on the IOTC record of authorized vessels or authorised to fish for tuna or tuna-like species, with the exception of observers who are permitted to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs) from oceanic whitetip sharks that are dead at haulback and artisanal fisheries for the purpose of local consumption, and will conduct a review and an evaluation of the interim measure in 2016.

**Resolution 13/05:** *On the conservation of whale sharks (*Rhincodon typus*).* This Resolution aims to mitigate the interactions between whale sharks and purse seine fishing gear; gather additional information from CPCs on the interaction rates with other fishing gears, in particular gillnets and longlines; and requests that the IOTC SC develop best practice mitigation and handling guidelines for consideration by the Commission at its 18th Session in 2014, to mitigate the impacts of fishing on whale sharks in the IOTC area of competence.

**Resolution 12/09:** *On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence.* This Resolution prohibits the retention onboard, transshipment, landing, storing, selling or offering for sale any part or whole carcass of the three species of Thresher sharks (family Alopiidae) by all vessels on the IOTC record of authorised vessels. Observers are permitted to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs) from thresher sharks that are dead at haulback.

**Resolution 19/03:** *On the conservation of mobulid rays caught in association with fisheries in the IOTC area of competence.* This Resolution aims to mitigate the interactions between mobulid rays and all fishing vessels flying the flag of a Contracting Party or Cooperating Non-Contracting Party. The Resolution prohibits the targeting of these rays and prohibits all vessels retaining onboard, transshipping, landing, storing, any part or whole carcass of mobulid rays caught in the IOTC Area of Competence apart from subsistence vessels. CPCs shall report the information and data collected on interactions (i.e. number of discards and releases) with mobulid rays by vessels through logbooks and/or through observer programs.

#### **MARINE TURTLES:**

**Resolution 12/04:** *On the conservation of marine turtles.* This Resolution introduced amendments to Resolution 09/06 On Marine Turtles, by removing the term 'hard-shelled' to provide equal protection for all marine turtles in the IOTC area of competence and clarify the data reporting requirements for interactions with marine turtles.

#### **SEABIRDS:**

**Resolution 23/07:** *On reducing the incidental bycatch of seabirds in longline fisheries.* This Resolution supersedes Resolution 12/06. The Resolution applies specifically to longliners and the limit of the area in which longline vessels have to implement mitigation measures is south of 25°S to encompass the area of overlap between the distribution area of endangered species of seabirds and the longline fishing grounds. This Resolution builds on the previous Resolution which listed three mitigation measures (i.e., night setting with minimum deck lighting, bird scaring lines and line weighting) considered to be effective. The revised Resolution 23/07 differs from Resolution 12/06 in that CPCs

may either use at least two of the three mitigation measure options previously mentioned or may use hook-shielding devices as a stand-alone measure. The Resolution also requires the SC to continue to review and make recommendations to the Commission on advancements and best practice in seabird bycatch mitigation including developing advice to the Commission on best practice branch line weighting by 2024.

#### **CETACEANS:**

**Resolution 23/06: *On the conservation of cetaceans.*** This Resolution supersedes Resolution 13/04 and applies to all vessels on the IOTC record of fishing vessels so does not apply to artisanal vessels operating exclusively in their respective EEZ. The Resolution aims to mitigate the interactions between cetaceans and purse seine and gillnet fishing gear; and gather additional information from CPCs on the interaction rates with other fishing gears, in particular gillnets and longlines. The Resolution also requests that the IOTC SC develop best practice guidelines for the safe release and handling of encircled cetaceans and submit these to the Commission meeting for endorsement by 2025 at the latest and review information on the status of cetaceans in the IOTC area and provide recommendations or advice to the Commission to identify measures that the Commission could take to mitigate negative effects of interactions with cetaceans by IOTC fisheries. Comparing this Resolution to 13/04, the updated Resolution adds in a clause saying that CPCs shall endeavour to ensure that fishermen are aware of and use proper mitigation, identification, handling and releasing techniques and keep on board all necessary equipment for the safe release of cetaceans before the guidelines are endorsed and another encouraging CPCs with national and state legislation for protecting these species to provide information to the SC.

#### **REGIONAL OBSERVER SCHEME AND EMS:**

**Resolution 24/04 *On a Regional Observer Scheme.*** This Resolution supersedes Resolution 22/04. This Resolution supersedes and is based on Resolution 11/04. This resolution puts in place a programme comprising national observer schemes to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area. CPCs are required to cover a minimum of 5% of their operations/sets per year on vessels over 24m in length or vessels of all lengths operating outside of their EEZ. The Resolution provides provisions for the use of Electronic Monitoring Systems (EMS) to complement or substitute for human onboard observers once the EMS standards have been adopted. This revision includes a note saying that CPCs may present a list of implementation plans for alternate data collection to the SC which if endorsed by the SC, may be used to record and report mandatory ROS data requirements for by vessels less than 24m in length fishing exclusively in the CPC's EEZ. The Resolution also includes a requirement for the SC to update the ROS observer manual and observer reporting forms including the minimum data fields and provide advice on a training program.

**Resolution 16/04: *On the implementation of a pilot project in view of promoting the regional observer scheme of IOTC.*** This resolution creates a pilot project aiming to enhance the implementation of the Resolution 11/04 *on a Regional Observer Scheme* (Now Resolution 22/04) and to raise the level of compliance to the implementation of Resolutions 15/01 and 15/02, respectively *on the recording of catch and effort data by fishing vessels in the IOTC area of competence and on mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating non-Contracting parties (CPCs).*

**Resolution 23/08 *On Electronic Monitoring Standards for IOTC fisheries.*** This Resolution sets out the minimum standards for electronic monitoring in IOTC fisheries and for implementing a Regional Electronic Monitoring Program (REMP). It sets out the rules for the implementation of national electronic monitoring programs by CPCs including the requirement to meet the EM program standard and EM system and data standards and submit Vessel Monitoring plans to the Secretariat and the SC on an annual basis. The Resolution requires the SC to review the Ros minimum data fields no later than 2024 to identify fields that are difficult for EM and/or human observers to collect; provide advice

and recommendations to the Commission on the need and use of those identified fields for scientific purposes and provide advice to the Commission on the potential need to develop a separate EM ROS minimum data fields list. CPCs are encouraged to share relevant information, approaches and experiences with the SC and Compliance Committee to support to the implementation of the REMP and the work of the SC.

**OTHER:**

**Resolution 19/05:** *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence.* The Resolution bans the discard of three tropical tuna species, with the exception of fish unfit for human consumption or if no space available to accommodate all fish. This Resolution supersedes Resolution 17/04.

**Resolution 12/12:** *To prohibit the use of large-scale driftnets on the high seas in the IOTC area.* This Resolution banned the use of large-scale driftnets (more than 2.5 km long) on the high seas within the IOTC area of competence. Paragraph 6 of this Resolution states that “The IOTC shall periodically assess whether additional measures should be adopted and implemented to ensure that large-scale driftnets are not used on the high seas in the Convention Area. The first such assessment shall take place in 2012.”.

**Resolution 18/04:** *On bioFAD experimental project.* This Resolution acknowledges and supports the Biodegradable FAD (BIOFAD) project with the objective of reducing the impact and the amount of synthetic marine debris of the use of non-biodegradable FAD in the ecosystem. The Project Consortium will make available to the IOTC Scientific Committee the results of the project at the latest two months in advance of its 2020 meeting. The Scientific Committee will analyse the outcomes of the project and provide scientific advice on possible additional FAD management options for consideration by the Commission in 2021.

**Resolution 18/09:** *On a scoping study of socio-economic indicators of IOTC fisheries.* This Resolution specifies the terms of reference for a scoping study of socio-economic aspects of IOTC fisheries. Pursuant to Article XII.5 of the Agreement, the Commission shall review the results of the scoping study and determine if a permanent Working Party on the Socio-Economic Aspects of the Fisheries the IOTC Area of the Competence is needed, at its 23rd Session in 2019.

**Resolution 19/02:** *Procedures on a Fish Aggregating Devices (FADs) Management Plan.* This Resolution sets a limit of 300 buoys to be set by any purse seine vessel at a time and the requirement for CPCs to submit information to the Secretariat on the number of operational buoys followed by vessels by type, 1x1 grid area and month strata. CPCs are also required to submit FAD management plans to the Commission for analysis by the Compliance Committee and these should include initiatives to investigate the minimise the capture of small bigeye and yellowfin tuna and non-target species associated with fishing on FADs as well as guidelines to prevent the loss or abandonment of FADs. The Resolution also states that vessels are required to use non-entangling FAD designs and natural or biodegradable materials to construct them.

**Resolution 24/01:** *On climate change as it relates to the Indian Ocean Tuna Commission.* This Resolution supersedes Resolution 22/01. This Resolution requires that the Commission shall take into account scientific information available from the Scientific Committee and other relevant international processes on the relationship between climate change, tuna fisheries and tuna stocks, bycatch and ecosystems. The SC will 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. Capacity building programs in developing coastal states are also to be supported by the Commission and SC. The SC shall review and consider any climate change information and advice from its working parties and provide advice to the Commission and suggest further steps that may be taken to integrate climate change considerations into its decision-making processes.

## **DISCUSSION**

As part of best practice, the WPEB is obliged to review existing CMMs and consider whether their science-based components need to be revised. If this is the case, then the WPEB should provide clear, science-based recommendations for the Scientific Committee's consideration.

## **RECOMMENDATION**

That the WPEB **NOTE** paper IOTC-2024-WPEB20(AS)-05 which aimed to encourage the WPEB to review the existing Conservation and Management Measures (CMMs) relating to the WPEB, and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.