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Indian Ocean Tuna Commission
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ON CONSERVATION OF MOBULA AND MANTA RAYS CAUGHT IN ASSOCIATION WITH FISHERIES IN THE IOTC AREA OF COMPETENCE

SUBMITTED BY: Maldives

Explanatory memorandum

The international scientific community strongly underlines the vulnerability of the family Mobulidae, which now comprises of a single genus; *Mobula*, consisting of 9 extant species (Hosegood *et al*., 2018) that are commonly referred to as manta and mobula rays (collectively as mobulid rays). Mobulid rays are pelagic filter feeders found in both coastal and offshore waters, and have circumglobal distributions. However, they have one of the most conservative lifecycles among elasmobranchs and can be rapidly depleted by even low levels of fishing mortality. Mobulids are globally threatened as they have experienced high levels of bycatch and directed exploitation throughout their range, and are currently at risk of extinction.

These species are captured as a bycatch by tuna fisheries operating in the Indian Ocean, and are retained and landed due to their highly valued gill plates. There is data deficiency for mobulids, however information available from various sources including Pakistan, Sri Lanka, India, Indonesia, and the Philippines, among other fisheries, provide evidence on the steep declines of mobulid populations in the Indian Ocean, which calls for immediate action for the conservation and management of all *Mobula* species. The increasing level of shark and ray catches in the Indian Ocean will have an irreversible negative impact on the stock of the above-mentioned species, justifying a precautionary approach in their management.

All *Manta spp.* and *Mobula spp*. are listed on Appendix I and II of CMS. In addition, all species in the genera *Mobula* and *Manta* are now included on CITES Appendix II, thereby requiring that all international trade in their parts and products be both legal and sustainable. Cooperation through IOTC will greatly enhance the ability of IOTC member states to implement their CITES and CMS obligations.
As a result, fishing vessels should be prohibited from retaining on board, transshipping, landing, storing, selling, or offering for sale any part of *Mobula* spp. Guidance to facilitate the live release of these animals is included in Annex 1 of this resolution.

This approach has been taken up by the IATTC, who have adopted a measure in line with this resolution for purse seine vessels operating in their area of competence, and the WCPFC is in the process of considering a similar measure. Through this resolution IOTC will join this global effort to offer precautionary management to manta and mobula rays.

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RESOLUTION 19/XX
ON THE CONSERVATION OF MOBULA AND MANTA RAYS CAUGHT IN ASSOCIATION WITH FISHERIES IN THE IOTC AREA OF COMPETENCE

Keywords: *Mobula* spp., mobula rays, manta rays, mobulid rays, conservation,

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING Resolution 12/01 *On the implementation of the Precautionary Approach* calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties to apply the precautionary approach when managing tuna and tuna-like species in accordance with Article V of the United Fish Stocks Agreement;

RECALLING IOTC Resolution 17/05 *concerning the conservation of sharks caught in association with fisheries managed by IOTC*;

CONSIDERING that the species of the family Mobulidae, which includes *Mobula* rays (manta rays are now included as *Mobula*), are extremely vulnerable to overfishing as they take a long time to reach sexual maturity, have long gestation periods, are long-lived, and give birth to a single pup;

RECOGNISING the ecological and cultural significance of *Mobula* rays in the Indian Ocean;

RECOGNISING the need to implement the Global Conservation Strategy for mobulid rays (Lawson *et al.* 2017) which provides a framework for and prioritizing conservation interventions for mobulid rays (Manta *spp*; Mobula *Spp.*) throughout their entire geographic range.

CONCERNED about the possible impacts of purse seine, driftnet and gillnet fishing operations on the sustainability of mobulid rays, as well as other fishing activities;

CONCERNED by the lack of complete and accurate data reporting concerning fishing activities on non-targeted species;

RECOGNIZING the need to improve the collection of species-specific data on catch, catch rates, discards, and trade as a basis for improving the conservation and management of mobulid ray stocks;

NOTING that the WPEB recognized that full stock assessments for *Manta* and *Mobula* rays may not be possible because of data limitations but that it is essential that some stock assessment evaluation should be carried out;

RECALLING that the Commission Requested the SC to review the status of Manta and Mobula rays and their interaction with IOTC fisheries and to report to the Commission in 2020, including the evaluation of data availability and data gaps, and where data is insufficient, the SC should propose options for strengthening data collection.

CONCERNED that at-vessel and post-release mortality in mobulids is unknown, and suggest that any non-retention measure should be accompanied with research on post-release mortality based on satellite tagging programmes to investigate the effectiveness of this measure.

NOTING the request that authors of the new mobulid ID guide provide input on the IOTC guide to improve data collection of mobulids in IOTC fisheries,

RECOGNISING that the WPEB agreed that mitigation methods (lights, hanging ratios for gillnets etc.) for all fisheries with a bycatch of Mobulids be investigated, developed and distributed and in addition, gear modifications could be investigated that could reduce the capture of Mobulids in different gear while maintaining the catch of target species

FURTHER NOTING the need for encouraging research to explore the use of available observer data in conjunction with fisheries independent data to identify hot spots for the conservation and management of mobulids within and beyond EEZs.

NOTING that the SC Recommended that data collection for mobulid rays (if possible to species level) should be improved, and that bycatch mitigation methods should be investigated and that safe release techniques and best practices should be implemented.

RECALLING that the SC (SC21.16, para 72) noted significant declines of these species across their range in the Indian Ocean along with evidence of these species' interaction with pelagic fisheries, in particular tuna gillnet, purse seine, and occasionally longline fisheries, the SC RECOMMENDED that management actions, such as non-retention measures in the IOTC Area of Competence (as a first step considering the Precautionary Approach) among others, are required to enable these species to recover and must immediately be adopted instead of waiting until 2020.

The Commission **ADOPTS**, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. This measure shall apply to all fishing vessels flying the flag of a Contracting Party or Cooperating Non-Contracting Party (hereinafter referred to collectively as CPC) and on the IOTC record of fishing vessels authorized to fish for tuna and tuna like species managed by the IOTC, except vessels that are less than 24 metres overall length that operate solely within the EEZ of the flag CPC that take Manta or Mobula rays exclusively for domestic consumption.

2. CPCs shall prohibit the intentional setting of any gear type known to catch Mobulid rays (i.e. purse seine, gillnet), on a school of tuna associated with *Mobula* spp. in the IOTC Area of Competence, if the animal is sighted prior to commencement of the set.

3. CPCs shall prohibit all vessels from retaining on board, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of *Mobula* spp. caught in the IOTC Area of Competence, and ensure that no parts thereof, are traded across borders by CPCs.

4. CPCs are encouraged to promptly release unharmed, to the extent practicable, *Mobula* spp. as soon as they are seen in the net, on the hook, or on the deck, and do it in a manner that will result in the least possible harm to the individuals captured without compromising the safety of any person, following the guidance detailed in Annex 1 of this Resolution.

5. CPCs are encouraged to investigate at-vessel and port-release mortality in mobulids, and the application of satellite tagging programs is provisioned through the funding allocated from the Commission to investigate the effectiveness of this measure.

6. CPCs shall report the information and data collected on interactions (number of discards and releases) with *Mobula* spp. by vessels, through logbooks or observer programs, making use of the new mobulid ID guide. The data shall be provided to the IOTC Secretariat by 30 June of the following year or 6 months after the end of the fishing season and according to the timelines specified in Resolution 15/02 (or any subsequent revision).

7. The Scientific Committee shall make use of available observer data in conjunction with fisheries independent data to identify hot spots for conservation and management of mobulids within and beyond EEZs.

8. Scientific observers shall be allowed to collect biological samples of *Mobula* spp. 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 (SC). In order to obtain the approval, a detailed proposal outlining the purpose of the work, number of samples intended to be collected, and the spatio-temporal distribution of the sampling effect must be submitted. Annual progress of the work and a final report on completion shall be presented to the SC.

9. The scientific committee shall review the status of *Mobula* spp. in the IOTC Area of Competence and provide management advice to the Commission in 2022. The Scientific Committee shall also review the practicality of the application of prompt release and provide guidance to the Commission in 2022.

ANNEX 1
Live release guidance

1. Prohibit the gaffing of rays.

2. Prohibit the lifting of rays by the gill slits or spiracles.

3. Prohibit the punching of holes through the bodies of rays (e.g. to pass a cable through for lifting the ray).

4. Rays too large to be lifted safely by hand should be, to the extent possible, brailed out of the net using best available method such as those recommended in document WCPFC-SC8-2012/EB-IP-12 *(Poisson et al, 2012. Good practices to reduce the mortality of sharks and rays caught incidentally by the tropical tuna purse seiners).*

5. Large rays that cannot be released safely before being landed on deck, should be returned to the water as soon as possible, preferably utilizing a ramp from the deck connecting to an opening on the side of the boat, or if no such ramp is available, lowered with a sling or net.