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## RESOLUTION 26/03

### ON THE CONSERVATION OF MOBULID RAYS CAUGHT IN ASSOCIATION WITH FISHERIES MANAGED BY IOTC

**Keywords:** mobulid rays, mobula rays, manta rays, conservation, retention ban, bycatch mitigation

**The Indian Ocean Tuna Commission (IOTC),**

RECOGNISING Resolution 12/01 *On the implementation of the precautionary approach* requires IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) to apply the precautionary approach when managing IOTC species in accordance with Article 5 of the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) and that, for sound fisheries management, such an approach applies also within areas under national jurisdiction;

RECALLING Resolution 25/08 *On the conservation of sharks caught in association with fisheries managed by IOTC*;

CONSIDERING that mobulid rays are extremely vulnerable to overfishing as they are slow-growing, reach sexual maturity late, have long gestation periods, and often give birth to only a few pups;

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

CONCERNED about the possible impacts on these species by the different fisheries occurring from coastal areas to the high seas;

CONSIDERING that the Food and Agriculture Organization of the United Nations (FAO) International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) calls on States to cooperate through regional fisheries management organizations with a view to ensuring the sustainability of shark stocks (which, for the purposes of the IPOA Sharks, include rays);

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

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

NOTING that the mobulid rays are listed in Appendix I and Appendix II of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the range States to a migratory species shall endeavour to strictly protect them;

FURTHER NOTING that the mobulid rays are also listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) for which trade shall be closely controlled under specific conditions including, *inter alia*, that trade will not be detrimental to the survival of the species in the wild;

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ACKNOWLEDGING that the IOTC Scientific Committee (SC21 in 2018) noted the declines of these species across the Indian Ocean and 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”.

CONSIDERING the recommendations adopted at the 21st Session of the IOTC Working Party on Ecosystems and Bycatch concerning live release handling procedures for mobulid rays;

FURTHER CONSIDERING that the IOTC Scientific Committee (SC28) recommended to revise handling guidelines for mobulid rays;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, the following:

### **Definitions**

1. For the purpose of this Resolution:

- a) “IOTC fisheries” means all fisheries targeting IOTC species in the IOTC Area of Competence.
- b) “Subsistence fisheries” means all fisheries where the fish caught are consumed directly by the families of the fishers rather than being bought by middle-(wo)men and sold at the next larger market.
- c) “Artisanal fisheries” means all fisheries other than longline or surface fisheries (i.e. purse seines, pole & line, gillnet fisheries, hand-line and trolling vessels), registered in the IOTC Record of Authorised Vessels.
- d) “Mobulid rays” means the species of the family *Mobulidae*, which includes manta rays and mobula rays.

### **Application**

2. This Resolution shall apply to all fishing vessels targeting species listed in Annex B of the IOTC Agreement, in the IOTC Area of Competence, flying the flag of a CPC.

### **Bycatch Mitigation Measures**

3. CPCs shall prohibit their flag vessels from intentionally setting any gear type for targeted fishing of mobulid rays.
4. CPCs shall prohibit their flag vessels, other than those carrying out subsistence fisheries, from retaining onboard, transshipping, landing or storing any part or whole carcass of mobulid rays. CPCs shall ensure that their flag vessels carrying out subsistence fisheries do not tranship, sell or offer for sale any part or whole carcass of mobulid rays.
5. CPCs shall require all their flag fishing vessels, other than those carrying out subsistence fisheries, to promptly release alive and unharmed, to the extent practicable and taking into consideration the safety of the crew and observers, mobulid rays incidentally caught in IOTC fisheries 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. CPCs shall implement and ensure that their fishing vessels apply “General principles applying to all gears” outlined in the Minimum Standards for Safe Handling and Live Release Procedures

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detailed in Annex I.

6. CPCs shall ensure that their flag purse seine vessels surrender mobulid rays, as a whole, that are unintentionally caught by and frozen as part of a purse seine vessel's operation to the responsible governmental authorities, or other competent authority, or discard them at the point of landing. Mobulid rays surrendered in this manner may not be sold or bartered but may be donated for purposes of domestic human consumption.
7. 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 programmes. CPCs shall provide this data to the IOTC Secretariat by 30 June of the following year and in accordance with the timelines specified in Resolution 15/02 *Mandatory Statistical Reporting Requirements for IOTC Contracting Parties and Cooperating Non-contracting Parties (CPCs)*.
8. Except for CPCs that have clearly demonstrated that intentional and/or incidental catches of mobulid rays do not occur in their IOTC fisheries, CPCs shall ensure that fishers on their flag fishing vessels are aware of and use proper mitigation, identification, handling and releasing techniques and keep on board all necessary equipment for the release of mobulid rays in accordance with the Minimum Standards for Safe Handling and Live Release Procedures in Annex I.
9. CPCs shall ensure that purse seine vessels carry on board and use the following release equipment at all times as of 1 January 2028<sup>1</sup>:
  - a) Mobulid sorting grid;
  - b) Stretcher;
  - c) Cargo net, canvas sling, or any similar device that can be attached to any lifting device, such as crane, available onboard;
  - d) Large straps.
10. Paragraph 9 does not apply to purse seine vessels that in their fishing operations release mobulid rays directly from the net without taking them out of the water.
11. CPCs shall ensure that their flag recreational and sport fishing vessels release alive all caught mobulid rays and do not retain onboard, tranship, land, store, sell or offer for sale any part or whole carcass of mobulid rays.

### **Scientific Work and Recommendations**

12. Except for those CPCs that have clearly demonstrated that intentional and/or incidental catches of mobulid rays do not occur in their IOTC fisheries, CPCs shall develop, with the assistance from the IOTC Secretariat where required, catch monitoring plans for mobulid ray catches and interactions by their flag fishing vessels carrying out subsistence and artisanal fisheries. CPCs shall report their catch monitoring plans, including their scientific and operational rationale, to the Working Party on Ecosystems and Bycatch and in the national scientific reports to the IOTC Scientific Committee by 2027.
13. At its 30<sup>th</sup> Session in 2027, the IOTC Scientific Committee shall review the soundness of the catch monitoring plans submitted by CPCs, as well as the rationale and evidence provided by CPCs that have not

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<sup>1</sup> For Indonesia, paragraph 9 shall apply as of 1 January 2030.

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submitted such plans and shall provide advice to CPCs and the Commission. CPCs required to develop a catch monitoring plan shall improve their catch monitoring plan in accordance with the advice of the IOTC Scientific Committee and shall implement this updated catch monitoring plan from 2029 onwards.

14. CPCs that have developed catch monitoring plans shall submit annually in their national scientific reports to the Scientific Committee any catch and effort data collected under their catch monitoring plans during the previous year.
15. CPCs are encouraged to investigate at-vessel and post-release mortality in mobulid rays including the application of satellite tagging programmes that may be provisioned primarily through national support complemented if possible by the allocation of funds from the Commission to investigate the effectiveness of this measure.
16. The IOTC Scientific Committee shall review the status of mobulid rays in the IOTC Area of Competence and provide management advice to the Commission for its consideration at its annual Session in 2027, including the identification of possible hot-spots for conservation and management of mobulid rays within and beyond the EEZs of coastal CPCs.
17. The IOTC Scientific Committee shall provide, whenever considered adequate on the basis of evolving knowledge and scientific advice, improvements to the Minimum Standards for Safe Handling and Live Release Procedures in Annex I.
18. Scientific observers shall be allowed to collect biological samples of mobulid rays caught in IOTC fisheries 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 such 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 effort must be included in the proposal. Annual progress of the work and a final report on completion shall be presented to the IOTC Scientific Committee.

### **Final Provisions**

19. This Resolution supersedes Resolution 19/03 *On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence*.

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## ANNEX I

### Minimum Standards for Safe Handling and Live Release Procedures

The primary aim of the following Minimum Standards for Safe Handling and Live Release Procedures is to ensure the highest level of survival of incidentally caught and released mobulid rays and that, whenever possible, prompt, and effective action will be taken to return the mobulid ray promptly and alive to the sea, while prioritising that the life and safety of persons on board (hereinafter referred to as “the crew”) is not compromised and that crew members shall endeavour to avoid hazards in the safe handling and release operations for mobulid rays.<sup>2</sup>

**Safety first:** These minimum standards should be considered in light of safety and practicability for crew. Crew safety should always come first. Also minimising manual handling and using appropriate technical release devices instead is preferable to ensure safety of the crew and the animals at the same time.

#### General principles applying to all gears

- Mobulid rays shall be released as soon as possible.
- Reducing the release time is the principal factor in determining survival of the released individual – survival is drastically reduced after more than 3 minutes of handling
- Prohibit the use of gaffes, hooks, or ropes to move or lift mobulid rays.
- Prohibit lifting, dragging, carrying or holding mobulid rays by the horns (“cephalic lobes”), tail, gill slits, mouth, wing, eye or spiracle (opening behind the eye) even by hand.
- Prohibit dragging by the wings but lifting by the wings is allowed when no other option is available.
- Prohibit the punching of holes through the bodies of mobulid rays (for example to pass a cable through for lifting the mobulid ray).
- Minimise direct contact with the skin of mobulid rays to prevent damage to their protective mucus layer and epidermis; handling should be avoided where possible and, if necessary, conducted with wet, non-abrasive materials.

#### Best practices for live release from purse seiners

- If brought onboard, do not allow the mobulid ray to go through the loading chute to the lower deck, as far as possible.
- **Small and medium sized mobulid rays** should be released using stretchers to facilitate release in cases when a stretcher is not available, manual release should include:
  - 2 or 3 crew who carry the animal belly-down. The mobulid ray should be held far away from the tail to avoid contact with the barb (one mobulid species has a barb near the base of its tail).
  - Do not lift the animal by the tail.
  - Do not drag, carry or hold an animal by its cephalic lobes (“horns”) or in its gill slits.
  - Do not expose the ray for long to air or sun.
  - Do not insert your hands in the mouth or gill slits to carry.
- **Large and medium sized mobulid rays** should be, to the extent possible, directly released from the net using the brailer or directly from the brailer (see methods recommended in document [IOTC-2012-WPEB08-INF07](#)).
- If a release from the brailer or the net is not possible, it is recommended to either:
  - Release using a purpose-made mobulid ray sorting grid with a rigid frame that allows the animal

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<sup>2</sup> Illustrations of the implementation of the Minimum Standards for Safe Handling and Live Release Procedures are provided in document IOTC–2025–WPEB21(AS)–R[E], pp. 136–138.

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to lie flat during release (see document [IOTC-2025-WPEB21\(AS\)-INF08](#) for construction instructions). The grid can be placed over the unloading hatch or on the hopper. A crane can be used to lift the grid and release the mobulid ray over the side of the vessel. Instructions for fabricating the grid can be found later in this document.

- Release using a cargo net, a canvas sling, or a similar device lifted with the crane. Try not to allow the animal's wings to bend significantly.
- A seawater hose placed in the animal's mouth is helpful to keep water running over its gills.

### **Best practices for live-release from gillnetters**

- Mobulid rays should not intentionally be hauled aboard. Before the net is hauled onboard, maintain the animal in the water and use the body of the net to bring the ray alongside the side of the vessel, disentangle it by manoeuvring the net or using tools, for example a long-handled line cutter and, if necessary, cut the net. Care should be taken to minimise stress and/or injury to the mobulid ray.
- For entangled animals, secure excess tangled area in the net with the long-handled gaff while other crew members remove the mobulid ray from the entangled areas of the net. The net cutter should be used to remove the animal from the tangled area of the net. Do not use the gaff on the animal.
- Do not let the mobulid ray pass through or above the net/line hauler, rather heave the net/line from the 'tuna door'/net hauling 'door' or haul by lifting through the gunwale.
- If it is not possible to disentangle the mobulid ray while keeping it in the water (such as in larger vessels where deck height does not allow it), carefully bring the mobulid ray on board, while ensuring that the animal may not pass above or through the net hauler and making every attempt to support the mobulid ray's weight by at least two points (i.e., one point of contact being the midsection, the other being the bottom end of the body near the tail), or preferably have 2 or 3 people carry the mobulid ray by the sides of each wing. If feasible, use a crane/cargo net/grid/stretchers.
- Disentangle the ray from the net—if the ray is 'badly' entangled, you may have to section some parts of the net (care should be taken to prevent injury to the animal while doing so). Try to minimise handling time and release it as soon as possible.
- A seawater hose placed in the animal's mouth is helpful to keep water running over its gills.

### **Best practices for live-release from longlines/ hook and line**

- If possible stop the vessel to safely remove gear and release large mobulid rays.
- Bring the mobulid ray alongside the vessel, if possible. Always leave the animal in the water.
- If the animal is not entangled and can be brought close to the boat, consider attaching a flyback prevention device to the branch line to reduce the risk of a lead (or hook) flyback accident.
- For animals that are hooked or have swallowed the hook, cut the line as close to the hook as possible leaving as little trailing line as possible, using a long-handled line cutter.
- For entangled animals, secure excess tangled line with the long-handled gaff while another crew member uses a long-handled line cutter to remove as much tangled line as possible. Do not use the gaff on the animal.