

## **ENDORSED BY WPICMM09**

### **RESOLUTION XX/03 ON THE CONSERVATION OF MOBULID RAYS CAUGHT IN ASSOCIATION WITH FISHERIES IN THE IOTC AREA OF COMPETENCE**

**Keywords:** Mobula Rays, Manta 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 5 of the United Nations Fish Stocks Agreement and that, for sound fisheries management, such an approach applies also within areas under national jurisdiction;

RECALLING IOTC Resolution 05/05 *Concerning the conservation of sharks caught in association with fisheries managed by IOTC* [superseded by Resolution 17/05];

CONSIDERING that the species of the family Mobulidae, which includes manta rays and mobula rays (hereinafter mobulid rays), are extremely vulnerable to overfishing as they are slow-growing, late sexual maturity, 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 United Nations Food and Agriculture Organization (FAO) International Plan of Action for Sharks calls on States to cooperate through regional fisheries management organizations to ensure the sustainability of shark stocks;

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, release, discards, and trade as a basis for improving the conservation and management of mobulid rays 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 II 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;

ACKNOWLEDGING that the Scientific Committee (SC21) recently noted the declines of these species across the Indian Ocean and RECOMMEND that management actions, such as no-retention measures amongst other, are required and must be immediately adopted;

RECALLING The SC **NOTED** that in 2024, the WPEB recommended the adoption of a revised set of handling guidelines for mobulids while **NOTING** that work was required to further develop the guidelines for gillnets. The SC **NOTED** that the WPEB worked to further develop these guidelines which were revised and adopted and these can be found in Annex XXVI of the 2025 WPEB report. The SC **RECOMMENDED** that the Commission consider these revised handling guidelines for mobulids for consideration for adoption in 2026.

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

1. This Resolution shall apply to all fishing vessels flying the flag of a Contracting Party or Cooperating Non-Contracting Party (hereinafter referred to collectively as CPCs), and on the IOTC record of fishing vessels or authorized to fish for tuna and tuna like species managed by the IOTC.
2. CPCs shall prohibit all vessels from intentionally setting any gear type for targeted fishing of mobulid rays in the IOTC Area of Competence, if the animal is sighted prior to commencement of the set.
3. CPCs shall prohibit all vessels retaining onboard, transshipping, landing, storing, any part or whole carcass of mobulid rays caught in the IOTC Area of Competence.
4. Provisions of paragraphs 2 and 3 above do not apply to fishing vessels carrying out subsistence fishery<sup>1</sup> that, anyhow, shall not be selling or offering for sale any part or whole carcass of mobulid rays.
5. CPCs shall require all their fishing vessels, other than those carrying out subsistence fishery, to promptly release alive and unharmed, to the extent practicable, mobulid rays 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. The handling procedures detailed in Annex I, while taking into consideration the safety of the crew shall be implemented and followed.
6. Notwithstanding paragraph 3, in the case of mobulid rays that are unintentionally caught by and frozen as part of a purse seine vessel's operation, the vessel must surrender the whole mobulid ray 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. Notwithstanding paragraph 3, in the case of mobulid rays that are unintentionally caught by artisanal fishing<sup>2</sup>, the vessel should report the information on the accidental catch to the responsible

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<sup>1</sup> A subsistence fishery is a fishery 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, per the FAO Guidelines for the routine collection of capture fishery data. FAO Fisheries Technical Paper. No. 382. Rome, FAO. 1999. 113p.

<sup>2</sup> Artisanal fishing: 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 Authorized Vessels (DEFINITION in footnote 1 of Res. 15/02).

governmental authorities, or other competent authority, at the point of landing. Mobulid rays unintentionally caught may only be used for purposes of local consumption. This derogation will expire in 1 January 2022.

8. 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. The data shall be provided to the IOTC Secretariat by 30 June of the following year, and according to the timelines specified in Resolution 15/02 (or any subsequent revision).
9. CPCs shall ensure that fishermen 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 handling guidelines of Annex 1.
10. Recreational and sport fishing shall release alive all caught mobulid rays and shall not be entitled to retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of mobulid rays.
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.
12. CPCs are encouraged to investigate at-vessel and post-release mortality in mobulids including, but not exclusively, the application of satellite tagging programs that may be provisioned primarily through the national support complementing possible funds allocation from the IOTC to investigate the effectiveness of this measure.
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.
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 effort must be included in the proposal. Annual progress of the work and a final report on completion shall be presented to the SC.
15. This Resolution supersedes Resolution 19/03 *on the conservation of mobulid rays caught in association with fisheries in the IOTC area of competence*

## ANNEX 1

### Live release handling procedures

#### [Link to the 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 mobulids and that, whenever possible, prompt, and effective action will be taken to return the mobulid to the sea and prioritising that the life and safety of the crew is not compromised and that crew members shall endeavour to avoid hazards in the safe handling and release operations for mobulid.*

**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 (e.g. 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 ray to go through the loading chute to the lower deck.
- **Small and medium sized rays** shall 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 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 rays** shall 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 sorting grid with a rigid frame that allows the animal 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 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.
- Each vessel must have the following release equipment accessible on deck at all times:
  - Mobulid sorting grid
  - Stretcher
  - Cargo net, canvas sling, or any similar device that can be attached to the crane

#### Best Practices for live-release for gillnetters

- Mobulids 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 e.g. a long-handled line cutter and, if necessary, cut the net. Care should be taken to minimise stress and/or injury to the ray
- For entangled animals, secure excess tangled area in the net with the long-handled gaff while other crew members remove the 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 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 ray while keeping it in the water (such as in larger vessels where deck height doesn't allow it), carefully bring the ray on board, while ensuring that the ray may not pass above or through the net hauler and making every attempt to support the 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 ray by the sides of each wing. If feasible, use a crane/cargo net/grid/stretcher...
- 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 rays.
- Bring the 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, use a long-handled line cutter to cut the line as close to the hook as possible leaving as little trailing line as possible.
- 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.

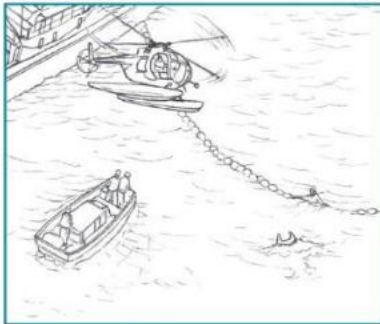
## Annex I – Illustrations<sup>6</sup>

### Purse seine

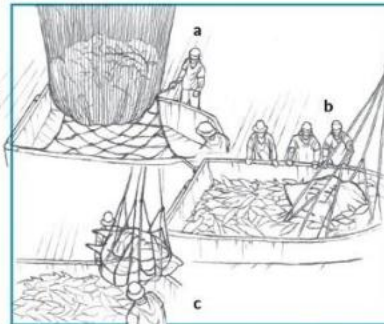
**\*\*If mobulid rays are detected from the helicopter or by crew this should be reported to the captain so they can avoid encirclement and inform the crew to have a purpose built cradle/stretcher or netting available and ready, to return the animals to the sea as rapidly as possible.\*\***

- 1 Ideally rays should be released while they are still free-swimming (e.g. back down procedure, submerging corks, cutting net).

If captured, do not allow the ray to go through the loading chute to the lower deck. The ray should be released immediately from the upper deck.



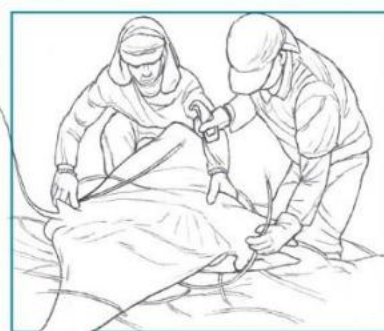
- 2 Rays that are too large to be lifted safely by hand should be brailled out of the net and released using a purpose built large-mesh cargo net or canvas sling or similar device



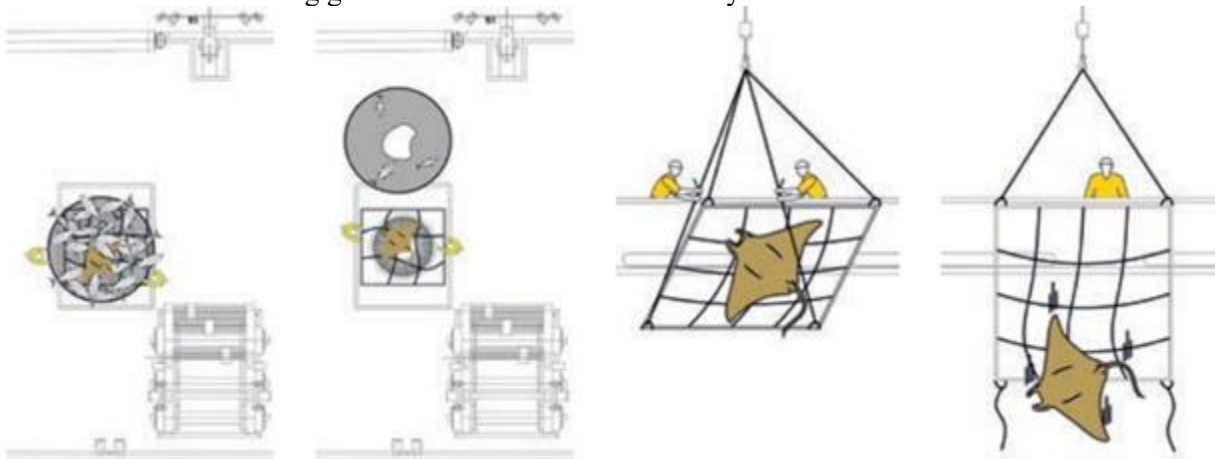
- 3 Small (< 30kg) and medium rays (30–60 kg) should be handled by 2 or 3 people and carried by the sides of its wings or preferably using a purpose-built cradle/stretcher while ensuring the safety of the crew.



- 4 When entangled in netting, carefully cut the net away from the animal and release to the sea as quickly as possible while ensuring the safety of the crew.



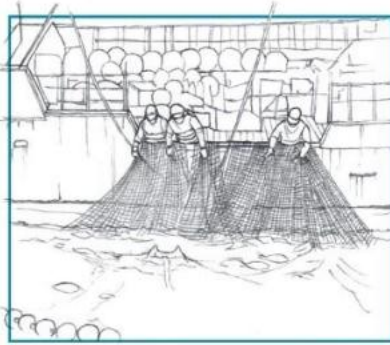
### How to use mobulid sorting grids for the release of mobulid rays



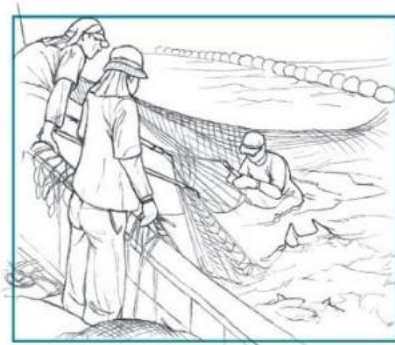


## Gillnets

- 1 Avoid bringing the ray on deck and try to maintain the animal by the side of the boat in the water. Try to disentangle the ray using i.e. a longhandled line cutter.



- 2 Use the body of the net to manoeuvre the ray alongside the boat; care should be taken to minimise stress and/or injury to the ray.



- 3 If it is not possible to disentangle the ray while keeping it in the water, carefully bring the ray on board, making every attempt to support the 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 ray by the sides of each wing; use crane/cargo net/grid if it's as large ray).

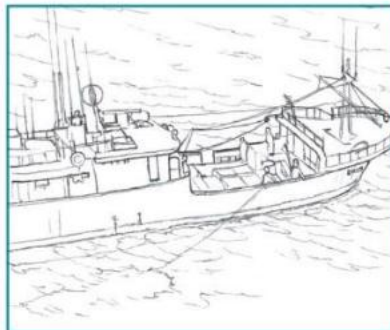


- 4 Disentangle the ray from the net - you may have to section some parts of the net if the ray is 'badly' entangled (care should be taken to prevent injury to the animal while doing so).  
  
Try to minimise handling time and release ASAP, if possible, get someone to pour water over the animal while you are handling it.

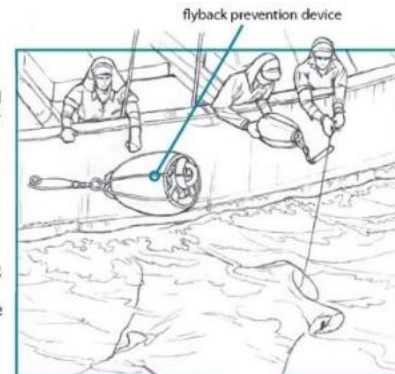


## Longline and hook and line

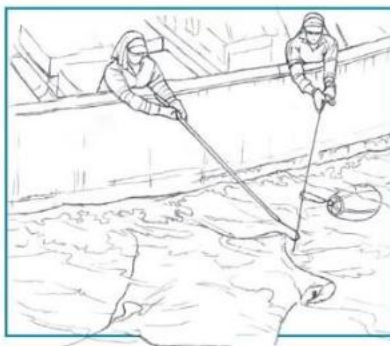
- 1 Always stop the vessel to safely remove gear and release large rays.



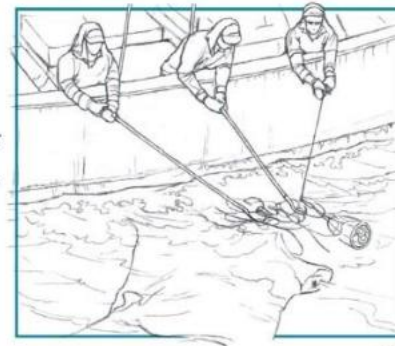
- 2 Bring the ray alongside the vessel, if possible. Always leave the animal submerged in the water so that its chance of post-release survival will be much higher.  
  
If the animal is not entangled and can be brought close to the boat, consider attaching a flyback prevention device to the branchline to reduce the risk of a lead (or hook) flyback accident.



- 3 For animals that are hooked or have swallowed the hook please use a long-handled line cutter, to cut the line as close to the hook as possible.



- 4 For animals that are entangled, secure any 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.



## What not to do – all gears



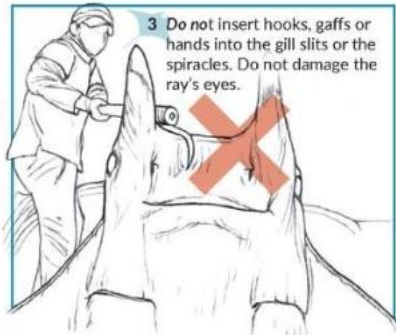
1 Do not leave a ray on deck until hauling is finished before returning it to the sea (release ASAP).



2 Do not gaff, drag, carry, lift or pull a ray by its 'cephalic lobes' or tail

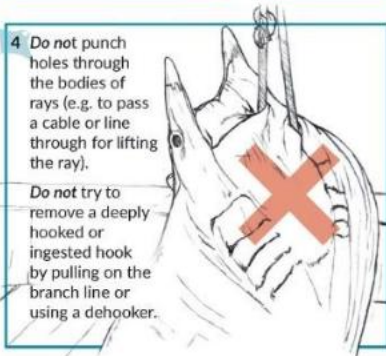


3 Do not insert hooks, gaffs or hands into the gill slits or the spiracles. Do not damage the ray's eyes.



4 Do not punch holes through the bodies of rays (e.g. to pass a cable or line through for lifting the ray).

Do not try to remove a deeply hooked or ingested hook by pulling on the branch line or using a dehooker.



5 Do not cut off tail



6 Do not drop the ray from a great height (>2m) into the water.

