



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

SUBMITTED BY: MALDIVES

Explanatory Memorandum

This proposal pursues the following aims:

- It incorporates the updated Minimum Standards for Safe Handling and Live Release Procedures in Annex I that were endorsed by the [IOTC Scientific Committee in 2025](#) (SC28.17 (para. 121)):
“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. The SC **RECOMMENDED** that the Commission consider these revised handling guidelines for mobulids for consideration for adoption in 2026. The details of the suggested revisions to the handling procedures can be found in Appendix XXVI of the WPEB report.”
- It improves the structure of legislative drafting of the Resolution, and partially aligns it with Resolution 25/08 *On the conservation of sharks caught in association with fisheries managed by IOTC*.
- It removes the expired derogation from the retention ban for mobulid rays caught in artisanal fisheries (for local consumption) that is not applicable anymore.
- It updates the scientific provisions and timelines of the Resolution, in particular with respect to mobulid ray sampling plans.

RESOLUTION ~~1926/03XX~~

**ON THE CONSERVATION OF MOBULID RAYS CAUGHT IN ASSOCIATION
WITH FISHERIES ~~IN THE IOTC AREA OF COMPETENCE~~ MANAGED BY IOTC**

Keywords: mobulid rays, Mobula–mobula Raysrays, Manta–manta Raysrays, Conservationconservation, retention ban, bycatch mitigation

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING Resolution 12/01 *On the implementation of the ~~Precautionary–precautionary Approach approach calls on~~ obliges IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) to apply the precautionary approach when managing IOTC species ~~tuna and tuna-like species~~ in accordance with Article 5 of the United Nations Fish 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) 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 then by Resolution 25/08 On the conservation of sharks caught in association with fisheries managed by IOTC];

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, ~~reach late~~ 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 ~~United Nations~~ 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 ensuringe 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;

~~RECOGNIZING~~ 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 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 ~~H~~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;

ACKNOWLEDGING that the IOTC Scientific Committee (SC21 ~~in 2018~~), ~~recently~~ noted the declines of these species across the Indian Ocean and ~~RECOMMEND~~ 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”~~that management actions, such as no retention measures amongst other, are required and must be immediately adopted;~~

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

Definitions

1. For the purpose of this Resolution:

- a) “CPCs” means Contracting Parties and Cooperating Non-Contracting Parties to the IOTC Agreement.
- b) “IOTC species” means all species of fish listed in Annex B of the IOTC Agreement.
- c) “IOTC fisheries” means all fisheries targeting IOTC species in the IOTC area of competence.
- d) “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, per the FAO Guidelines for the routine collection of capture fishery data.¹
- e) “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 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. This Resolution shall apply to all fishing vessels targeting and/or authorised to fish for IOTC species in the IOTC area of competence and supply vessels flying the flag of a CPC.

Bycatch Mitigation Measures

- ~~1.3.~~ CPCs shall prohibit ~~all their flag~~ 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.~~
- ~~2.4.~~ CPCs shall prohibit ~~all 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 ~~caught in the IOTC Area of Competence. 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.~~

¹ FAO Fisheries Technical Paper. No. 382. Rome, FAO. 1999. 113p.

- ~~3. Provisions of paragraphs 2 and 3 above do not apply to fishing vessels carrying out subsistence fishery² that, anyhow, shall not be selling or offering for sale any part or whole carcass of mobulid rays.~~
- 4.5. 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 in accordance with the Minimum Standards for Safe Handling and Live Release Procedures ~~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 in~~. ~~The handling procedures detailed in Annex I, while taking into consideration the safety of the crew shall be implemented and followed.~~
- 5.6. ~~Notwithstanding~~ CPCs shall ensure that their flag purse seine vessels ~~surrender paragraph 3, in the case of~~ mobulid rays, as a whole and with their fins naturally attached, 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.
- ~~6. Notwithstanding paragraph 3, in the case of mobulid rays that are unintentionally caught by artisanal fishing³, the vessel should report the information on the accidental catch to the responsible 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.~~
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. ~~The CPCs shall provide this data shall be provided~~ to the IOTC Secretariat by 30 June of the following year and in accordance, ~~and according to with~~ the timelines specified in Resolution 15/02 Mandatory Statistical Reporting Requirements for IOTC Contracting Parties and Cooperating Non-contracting Parties (CPCs) ~~(or any subsequent revision)~~.
8. CPCs shall ensure that fishermen ~~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 handling guidelines of Minimum Standards for Safe Handling and Live Release Procedures in Annex I.
9. CPCs shall ensure that their flag Recreational-recreational and sport fishing vessels ~~shall~~ release alive all caught mobulid rays and do not shall not be entitled to retaining onboard, transshipping, landing, storing ~~store~~, selling, or offering for sale any part or whole carcass of mobulid rays.
10. CPCs shall ensure that fishers are aware of and use the latest available identification guides such as the IOTC Shark and Ray Identification in Indian Ocean Fisheries.⁴

² 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.

³ 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).

⁴ <https://iotc.org/science/species-identification-cards>.

Scientific Work and Recommendations

~~10.11.~~ UCPCs, unless CPCs 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, sampling plans catch monitoring plans for the monitoring of the mobulid rays catches by ~~the~~ their flag fishing vessels carrying out subsistence and artisanal fisheries fishing fisheries. ~~The CPCs shall report their catch monitoring sampling plans, including their scientific and operational rationale, shall be reported~~ in the national scientific reports to the IOTC Scientific Committee, ~~At its 30th Session in 2027, the IOTC Scientific Committee shall review the soundness of the catch monitoring plans and, if applicable, the rationale provided by CPCs for their absence, and provide advice to CPCs and the Commission starting in 2020, which will provide its advice on their soundness by 2021 at the latest. The sampling plans, where required, CPCs required to develop a sampling plan shall improve their catch monitoring plan in accordance with the advice of the IOTC Scientific Committee and will be implement this updated catch monitoring plan from 2029 onwards by the CPCs from 2022 onward taking into account the Scientific Committee advice.~~

~~11.12.~~ CPCs are encouraged to investigate at-vessel and post-release mortality in mobulid rays including, but not exclusively, the application of satellite tagging program mes that may be provisioned primarily through the national support complementing complemented if possible by the funds allocation of funds from the IOTC Commission to investigate the effectiveness of this measure.

13. The IOTC Scientific Committee shall review the status of ~~Mobula spp.~~ mobulid rays in the IOTC ~~Area~~ area of ~~Competence~~ competence and provide management advice to the Commission in ~~2023-2027, including the identification of~~ also to identify possible hot-spots for conservation and management of mobulid rays within and beyond the EEZs of coastal CPCs.

14. ~~Moreover,~~ The IOTC Scientific Committee is requested shall to provide, whenever considered adequate on the basis of evolving knowledge and scientific advice, ~~further~~ improvements to the Minimum Standards for Safe Handling and Live Release Procedures handling procedures detailed in Annex 4I.

~~12.15.~~ Scientific observers shall be allowed to collect biological samples of mobulid rays caught in the IOTC Area of Competence 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~~ 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 IOTC Scientific Committee.

Final Provisions

16. This Resolution shall enter into force on 1 January 2027.

~~13.17.~~ This Resolution supersedes Resolution 19/03 On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence.

ANNEX H**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 mobulid rays and that, whenever possible, prompt, and effective action will be taken to return the mobulid ray 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 rays.

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.
- Small and medium sized mobulid 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 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 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 ray 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 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.
- Each vessel must have the following release equipment accessible on deck at all times:
 - Mobulid ray sorting grid.
 - Stretcher.
 - Cargo net, canvas sling, or any similar device that can be attached to the crane.

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/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 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, 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.

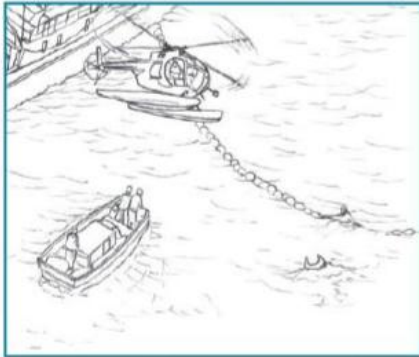
Illustrations⁵

Purse seine

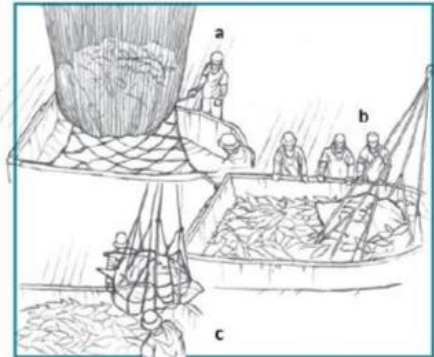
****If mobulid rays are detected from the helicopter or by crew this should be reported to the captain so they can avoid encirclement and inform the crew to have a purpose built cradle/stretcher or netting available and ready, to return the animals to the sea as rapidly as possible.****

- 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



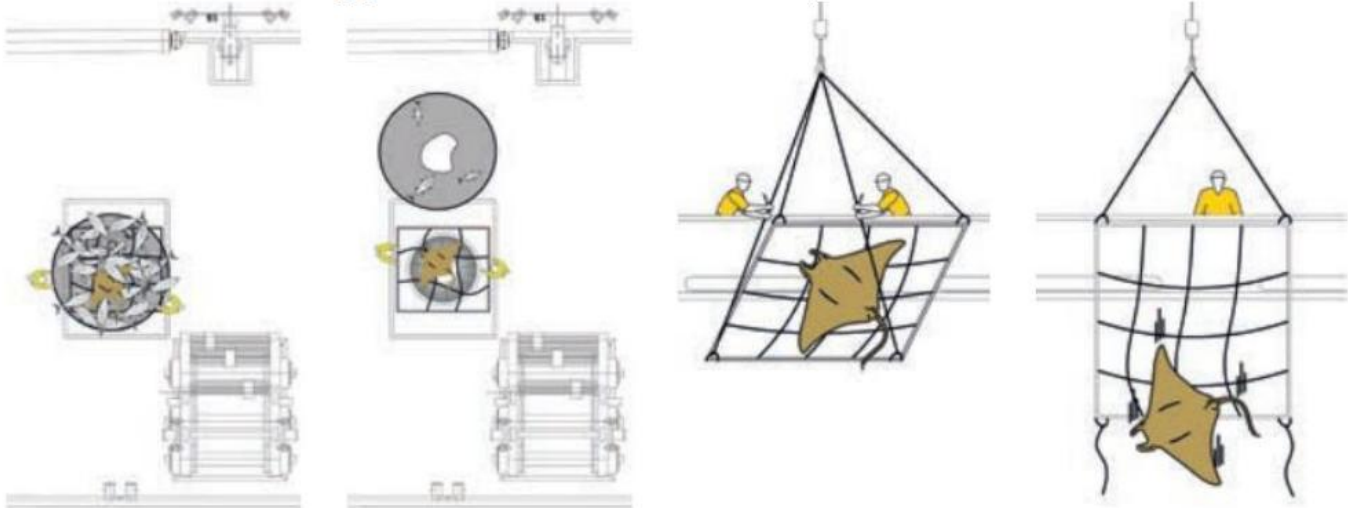
- 3** Small (< 30kg) and medium rays (30–60 kg) should be handled by 2 or 3 people and carried by the sides of its wings or preferably using a purpose-built cradle/stretcher while ensuring the safety of the crew.



- 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.



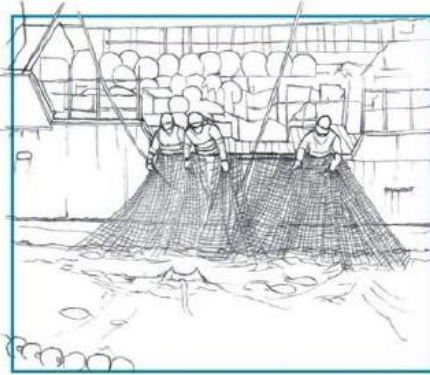
How to use mobulid sorting grids for the release of mobulid rays



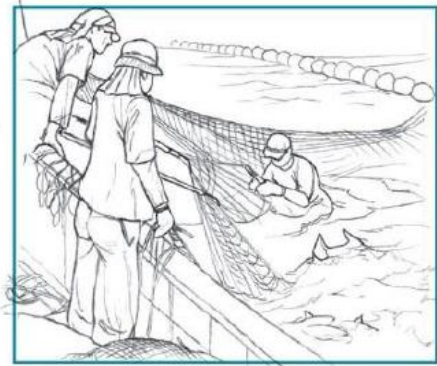
⁵ Illustrations provided by Manta Trust.

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 longhanded 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).

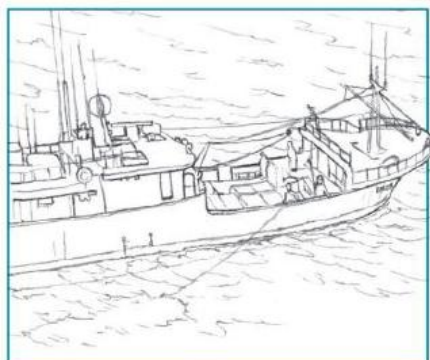


- 4 Disentangle the ray from the net - you may have to section some parts of the net if the ray is 'badly' entangled (care should be taken to prevent injury to the animal while doing so).
Try to minimise handling time and release ASAP, if possible, get someone to pour water over the animal while you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

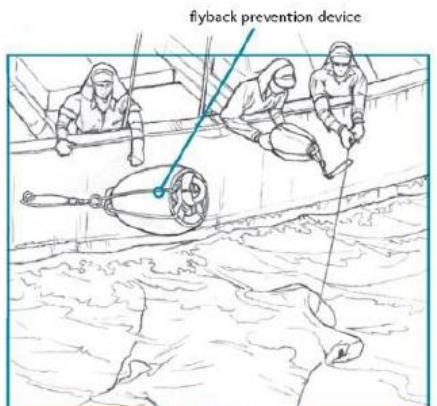


Longline and hook and line

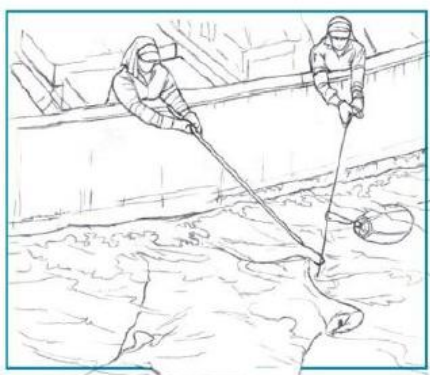
- 1 Always stop the vessel to safely remove gear and release large rays.



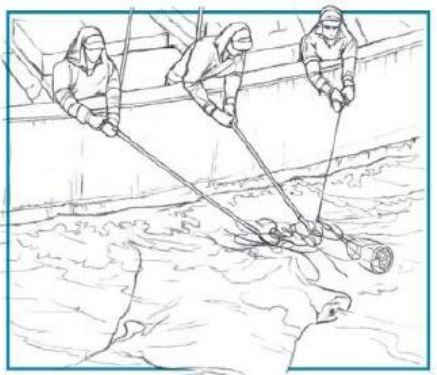
- 2 Bring the ray alongside the vessel, if possible. Always leave the animal submerged in the water so that its chance of post-release survival will be much higher.
If the animal is not entangled and can be brought close to the boat, consider attaching a flyback prevention device to the branchline to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



~~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 shall be, to the extent possible, brailed out of the net using best available method such as those recommended in document IOTC 2012 WPEB08INF07.~~
- ~~5. Large rays that cannot be released safely before being landed on deck, shall 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.~~