



**ON THE CONSERVATION OF SHORTFIN MAKO SHARKS CAUGHT
IN ASSOCIATION WITH IOTC FISHERIES**

SUBMITTED BY: EUROPEAN UNION

Explanatory Memorandum

The purpose of this resolution is to establish conservation and management measures for shortfin mako sharks (*Isurus oxyrinchus*) within the IOTC area of competence. The resolution responds to the most recent stock assessment, which identified shortfin mako sharks as overfished and subject to overfishing, requiring urgent management actions to reduce fishing mortality. The SC recommended that future catches not exceed 40% of 2020-2022 levels to ensure at least a 50% probability of stock recovery within ten years; however, recognizing that shortfin mako is primarily caught as bycatch, implementing catch limits may be impractical and could lead to unintended increases in mortality.

While the resolution's goal is to address the situation of shortfin mako sharks, it extends obligations to longfin mako sharks due to frequent aggregation of reporting under the generic MAK species code. As a pragmatic solution, the resolution mandates the prompt release of live individuals while allowing retention only when the shark is dead upon haulback, provided that an observer or electronic monitoring system is on board to verify the status of the catches. Additionally, the resolution emphasizes the need for accurate reporting of catches and robust estimation of bycatch to effectively manage and monitor the stock in the future and to improve stock assessments.

RESOLUTION 25/XX

ON THE CONSERVATION OF SHORTFIN MAKO SHARKS CAUGHT IN ASSOCIATION WITH IOTC FISHERIES

The Indian Ocean Tuna Commission (IOTC),

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

NOTING that future catches of shortfin mako sharks, accounting for the SMA, MAK and MSK species codes (*Isurus oxyrinchus*) should not exceed 40% of current (2020-2022) catches in order to recover the stock to the green quadrant of the Kobe plot with at least 50% probability in 10 years;

CONSIDERING the advice by the IOTC Scientific Committee (SC) that the Commission implement actions to reduce fishing mortality of shortfin mako sharks;

~~FURTHER CONSIDERING that catches of shortfin mako shark in the IOTC are the result of bycatch;~~

FURTHER CONSIDERING the very low productivity and relatively high survivorship of shortfin mako sharks;

FURTHER CONSIDERING that the Working Party on Ecosystem and Bycatch (WPEB) noted that catches of shortfin and longfin mako sharks are considerably aggregated and often reported at the mako genus level (MAK);

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

1. This measure shall apply to all vessels fishing for tuna and tuna-like species within the IOTC area of competence.

2. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, shortfin mako sharks (*Isurus oxyrinchus*) and longfin mako sharks (*Isurus paucus*) when brought along side for taking on board the vessel, ~~respecting the standards and procedures outlined in paragraph 5.~~ CPCs shall require vessels flying their flag to implement, while giving due consideration to the safety of the crew, the minimum standards for safe handling and release procedures of shortfin and longfin mako sharks, as provided under Annex I, in order to promptly release unharmed, to the extent practicable, and to improve survivability of live shortfin and longfin mako sharks.

3. Any retention permissible shall be allowed only when the fish is dead at haulback, and the vessel has an observer or a functioning electronic monitoring system¹ (EMS) on board to verify the condition of the sharks. In the absence of an observer or a functioning EMS, all shortfin and longfin mako sharks shall be released or discarded.

4. CPCs whose fishing vessels retain shortfin or longfin mako sharks shall prohibit transshipping, whole or in part, shortfin or longline mako sharks caught in association with IOTC fisheries.

~~5.1. CPCs shall require vessels flying their flag to implement, while giving due consideration to the safety of the crew, the minimum standards for safe handling and release procedures of shortfin and longfin mako sharks, as provided under Annex I, in order to promptly release unharmed, to the extent practicable, and to improve survivability of live shortfin and longfin mako sharks.~~

~~6.5.~~ CPCs shall ensure that their fishers record and report ~~incidental all~~ catches including dead discards and ~~as well as~~ live releases of mako sharks in accordance with Resolution 15/01 On the recording of catch and effort

¹ The use of an EMS must respect-comply with the standards of Resolution 23/08 on electronic monitoring standards for IOTC fisheries.

data by fishing vessels in the IOTC area of competence. CPCs shall urge their fishers to report catches at species level.

~~7.6.~~ By 1 January 2028, CPCs that reported annual average catches (landings and dead discards) of shortfin ~~and longfin~~ mako sharks (*SMA, MAK and MSK species codes*) over 1 tonne between 2020-2023 shall present to the WPEB and SC the statistical methodology used to estimate dead discards and live releases. The WPEB and SC shall review and approve the methods and, if they determine that the methods are not scientifically sound, shall provide relevant feedback to the CPCs in question to improve them.

~~8.7.~~ As part of their annual data submissions, CPCs shall provide all relevant data for IOTC mako sharks, including estimates of dead discards and live releases using the methods approved by the SC in the previous paragraph. If the Compliance Committee determines that a CPC fails to report their catch data, including dead discards and live releases, that CPC shall prohibit their fishing vessels to retain any quantity of shortfin or longfin makos in line with paragraph 3 until such data have been reported.

~~9.8.~~ CPCs are encouraged to continue undertaking scientific research that provides information on key biological/ecological parameters, life-history, migrations and post-release survival~~orship~~ of shortfin and longfin mako sharks and to report any such information to the SC.

~~10.9.~~ At its 28th Session, the SC shall assess the requirements under Resolution 15/01 *on the recording of catch and effort data by fishing vessels in the IOTC area of competence* and advise the Commission on the necessity *and feasibility* to extend reporting of shortfin and longfin mako sharks at species level for all gears.

10. The SC shall review for the 32nd Session of the Commission the impact of the measure of this Resolution on shortfin mako shark mortality.

11. *No later than its 32nd Session in 2028, the Commission will develop a mechanism to constrain the total levels of mortality, including dead discards and post-release mortality, with the objective for the stock to be in the green zone of the Kobe matrix by 2038.*

ANNEX I

MINIMUM STANDARDS FOR SAFE HANDLING AND LIVE RELEASE PROCEDURES

The following provides minimum standards for safe handling practices of shortfin mako sharks. These minimum standards are appropriate for live shortfin mako sharks when released whether under no-retention policies, or when released voluntarily. These basic guidelines do not replace any stricter safety rules that may have been established by the National Authorities of individual CPCs.

To the greatest extent practicable, all sharks being released should remain in the water at all times unless it is necessary to lift sharks for species identification. This includes cutting the line to free the shark while it is still in the water, using bolt cutters or dehooking devices to remove the hook if possible, or cutting the line as close to the hook as possible (and so leaving as little trailing line as possible).

Safety first: These minimum standards should be considered in light of safety and practicability for crew. Crew safety should always come first. At a minimum, crew should wear suitable gloves and avoid working around the mouths of sharks.

Be prepared: Tools should be prepared in advance (e.g., canvas or net slings, stretchers for carrying or lifting, large mesh net or grid to cover hatches/hoppers in purse seine fisheries, long handled cutters and dehookers in longline fisheries, etc., listed at the end of this document).

General recommendations for all fisheries

- If operationally safe to do so, stop the vessel or substantially reduce its speed.
- When entangled (in netting, fishing line, etc.), if safe to do so, carefully cut the net/line free from the animal and release to the sea as quickly as possible with no entanglements attached.
- Where feasible, and while keeping the shark in the water, try to measure the length of the shark.
- To prevent bites, place an object, such as a fish or big stick/wooden pole, in the jaw.
- If, for whatever reason, a shark must be brought on the deck then minimise the time it takes to return it to the water to increase survival and reduce risks to the crew.

Longline fisheries specific safe-handling practices

- Bring the shark as close to the vessel as possible without putting too much tension on the branchline to avoid that a released hook or branchline break could shoot hook, weights and other parts toward the vessels and crew at high speed.
- Secure the far side of the longline mainline to the boat to avoid that any remaining gear in the water pulls on the line and the animal.
- If hooked, and the hook is visible in the body or mouth, use a dehooking device or long-handled bolt cutter to remove the hook barb, and then remove the hook.
- If it is not possible to remove the hook or the hook cannot be seen, cut the line of the trace (or snood, leader) as close to the hook as possible (ideally leaving as little line and/or leader material as possible and no weights attached to the animal).

Purse seine fisheries specific safe-handling practices

- If in purse seine net: Scan the net as far ahead as possible to spot the sharks early to react quickly. Avoid lifting them up in the net towards the power block. Reduce vessel speed to slacken the tension of the net and allow the entangled animal to be removed from the net. If necessary, use clippers to cut the net.



- If in brail or on deck: Use a purpose-built large-mesh cargo net or canvas sling or similar device. If the vessel layout allows, these sharks could also be released by emptying the brail directly on a hopper and release ramp held up at an angle that connects to an opening on the top deck railing, without need to be lifted or handled by the crew.

DO NOT (all fisheries)

- To the greatest extent practicable, lift sharks from the water using the branchline, especially if hooked unless it is necessary to lift sharks for species identification.
- Lift sharks using thin wires or cables, or by the tail alone.
- Strike a shark against any surface to remove the animal from the line.
- Attempt to dislodge a hook that is deeply ingested and not visible.
- Try to remove a hook by pulling sharply on the branchline.
- Cut the tail or any other body part.
- Cut or punch holes through the shark.
- Gaff or kick a shark, or insert hands into the gill slits.
- Expose the shark to the sun for extended periods.
- Wrap your fingers, hands or arms in the line when bringing a shark or ray to the boat (may result in serious injury).

Useful tools for safe handling and release

- Gloves (shark skin is rough; ensures safe handling of shark and protects crew's hands from bites)
- Towel or cloth (a towel or cloth soaked in seawater can be placed on the eyes of the shark; used to calm sharks down)
- Dehooking devices (e.g., pig tail dehooker, bolt or plier cutters)
- Shark harness or stretcher (if needed)
- Tail rope (to secure a hooked shark if it needs to be removed from the water)
- Saltwater hose (If anticipated that it may require more than 5 minutes to release a shark, then place a hose into its mouth so seawater is moderately flowing into it. Make sure deck pump has been running several minutes before placing it in a shark's mouth)
- Measuring device (e.g., mark a pole, leader and float, or a measuring tape)
- Data sheet for recording all catch
- Tagging gear (if applicable)