

Original: English

**DRAFT RECOMMENDATION BY ICCAT ON THE CONSERVATION OF NORTH ATLANTIC STOCK OF  
SHORTFIN MAKO CAUGHT IN ASSOCIATION WITH ICCAT FISHERIES**

*Proposal Submitted by the European Union*

*ACKNOWLEDGING* the outcome of the stock assessment conducted by SCRS in 2017, which indicates that there is a 90% probability of the stock of North Atlantic shortfin mako being overfished and experiencing overfishing;

*FURTHER ACKNOWLEDGING* that updated projections, conducted by the SCRS in 2019, emphasize that the stock size will decrease up to 2035, regardless of the management measures implemented, and that nil catches should allow rebuilding the stock, above the target biomass and without overfishing, by 2050 with a 60% probability. Any constant annual catch level equal to or below 500 t will immediately halt overfishing while allowing the recovery of the stock by 2070 with a probability higher than 50%;

*RECOGNIZING* that the SCRS advises for a no-retention policy without exception associated with safe handling and best practices for the release of live specimens;

*TAKING INTO ACCOUNT* that other complementing management measures such as reduction of soak time (*e.g. fishing operations duration, number of deployed hooks, etc.*) and time-area closures (*e.g. hotspot areas, depths, etc.*) have the potential to reduce mortality. Nonetheless, the level of catch and effort data and their coarse spatial discrimination, as currently submitted to the Secretariat, makes it highly impossible to evaluate time/area closures and soak time provisions;

*ALSO RECOGNIZING* that the SCRS recommends that there will be a need for CPCs to strengthen their monitoring and data collection efforts to monitor the future status of this stock, including but not limited to total estimated dead discards and the estimation of CPUE using observer data;

*NOTING* that the collection of the information required for the monitoring of the stock is contingent to an increase of the observer coverage and use of electronic monitoring systems (EMS);

*NOTING* the SCRS response 19.5 emphasizing that higher resolution spatial catch and effort data would be necessary to identify areas of high interactions that would be practical for the implementation of closed areas with a high probability of protecting mako shark and minimize negative impacts on the target species;

*TAKING INTO ACCOUNT* that the SCRS has already adopted and recommended the implementation of minimum standards (SCRS/2016/180) for the use of an Electronic Monitoring System for purse seine vessels in the tropical tuna fishery;

*ALSO NOTING* the SCRS response 19.12 for which the available ST-09 data for longline fleets targeting tropical tunas will be used to estimate by-catch from these fleets in 2020 by taking into account 1) a method to raise the available data to represent total by-catch and 2) the taxonomic level for reporting by-catch;

*RECALLING* the *Recommendation by ICCAT on biological sampling of prohibited shark species by scientific observers* (Rec. 13-10);

*FURTHER RECALLING* the existing obligations of Contracting Parties, non-Contracting Parties, Entities and Fishing Entities (CPCs) to require the collection of discard data in their existing domestic observer and logbook programs under the *Recommendation by ICCAT on Information Collection and Harmonization of Data on By-catch and Discards in ICCAT Fisheries* (Rec. 11-10);

*RECALLING* the *Recommendation by ICCAT to Establish Minimum Standards for Fishing Vessel Scientific Observer Programs* (Rec. 16-14);

*RECALLING* the provisions of *Resolution by ICCAT on Criteria for the Allocation of Fishing Possibilities* [Res. 15-13], notably the criteria for the allocation of fishing possibilities set out in part III, and the need to ensure that these are applied in a fair, equitable and transparent manner;

*SEEKING* to ensure that the total catch does not exceed the annual Total Allowable Catch;

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION  
OF ATLANTIC TUNA (ICCAT) RECOMMENDS THAT:

**Live Release and TAC**

1. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) shall require all fishing vessels flying their flag, and operating in ICCAT managed fisheries, to promptly release all specimens of North Atlantic shortfin mako that are alive at haulback in a manner that causes the least harm and that maximizes post-release survival, while ensuring the safety of crew members.

CPCs shall ensure that the minimum standards for safe handling and live release procedures, as specified in **Annex 1**, are implemented while taking into consideration the safety of the crew; the fishing vessels shall have readily available on deck, where crew can get it quickly, lifting device, bolt cutters, dehooker/disgorger and line-cutter for safely release of individuals caught.

CPCs shall ensure that captain and crew members of their fishing vessels are adequately trained, aware of and use proper mitigation, identification, handling and releasing techniques and keep on board all necessary equipment for the release of shortfin mako specimens in accordance with the minimum standards for safe handling procedures as specified in **Annex 1**. These minimum standards, however, do not replace possible stricter guidelines established by CPCs national Authorities.

2. CPCs may authorize their vessels to catch and retain on board, transship or land North Atlantic shortfin mako, provided that:
  - a) The fish are already dead when brought along side for taking on board the vessel;
  - b) The fishing vessel has either an observer or a functioning electronic monitoring system on board with a view to recording numbers of specimens by sex (caught, release alive, dead discard) and, where feasible, also biometric information;
  - c) The observer collects data on the number of individuals hooked, body length, sex, condition, maturity (whether the individual is pregnant and its litter size) and weight of products for each shortfin mako caught as well as fishing effort;
  - d) When shortfin mako is not retained, the number of dead discards and live releases are recorded by the observer or estimated from the records from the electronic monitoring system.
3. CPCs shall ensure that recreational and sport fishing release alive all caught specimens of shortfin mako and shall not be entitled to retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of shortfin mako. Recreational and sport fishermen should follow the minimum standards for safe handling and live release procedures as indicated in **Annex 1**.
4. A total allowable catch (TAC) of North Atlantic shortfin mako kept onboard, transshipped or landed shall be set at 500 t.

The annual TAC shall be allocated among the ICCAT Contracting Parties according to the following quota scheme:

CPC	Quota (t)

The annual TAC may be revised subject to a decision of the Commission based on the advice of the SCRS in 2027, or at an earlier stage if enough information is provided by the SCRS.

5. CPCs shall provide monthly catch reports to the ICCAT Secretariat, indicating the quantities caught, discarded live, discarded dead and kept onboard. Once the total quantities caught are within 90% of the TAC referred to under paragraph 4, the Secretariat shall immediately inform all CPCs, who shall consider measures to prevent the occurrence of additional catches.
6. Any quantities of North Atlantic shortfin mako caught in excess of the TAC and/or CPCs quotas in a given year shall be deducted from the TAC and/or CPCs quotas the following year. If the TAC is exceeded for two out of three consecutive years, the management measures for North Atlantic shortfin mako shall be urgently reviewed by the Commission, and consideration shall be given to set the TAC zero for the subsequent years.

#### Scientific Observers and Electronic Monitoring System

7. In order to monitor the implementation of provisions of paragraphs 1 to 4 above the CPCs shall ensure that all longline fishing vessels, *as well as rod and reel recreational/sport fisheries*, shall gradually increase their observer coverage to 20% by 2022 at latest and in accordance with provisions of the Recommendation 16-14. This increase in the coverage, can be supported either by means of human observers on board vessels or by means of suitable EMS.

CPCs shall ensure that the installation of the EMS could allow recording, by geographic position, at least the number and body length of sharks specimens set alongside the vessel and/or brought on board.

The observer records, *inter alia*, georeferenced information of the fishing operations allowing also subsequent cartographic restitution over at least 1°x1° grid and including, *inter alia*:

- the number of individuals hooked, dead discards, released alive by estimated/measured body length, sex and, when specimens brought onboard, the maturity (whether the individual is pregnant and its litter size) and weight of products for each shortfin mako;
- the time of starting/ending the setting, the time of starting/ending the hauling;
- the gear characteristics (e.g. number and type of deployed hooks, bait type, depth of setting, length of mainline, length of branchlines, etc.).

8. The collected information, including biometric and biological samples, should be analyzed by CPCs concerned and the result shall be presented to the SCRS on a regular basis and with a time interval not exceeding two years.

#### Gear provisions

9. CPCs shall ensure that, from 1 January 2022 onwards, all their longline fishing vessels install mini data loggers on the mainline and on the branchlines to record at least depth, setting/hauling time, and temperature.

The SCRS is requested to provide guidance in 2020 on the basic characteristics, minimum number and positions to install the mini data loggers with a view to have a better understanding of the effects of the soaking time, fishing depths and environmental characteristics underpinning higher incidental catches of shortfin mako.

#### Data Collection, reporting and scientific activities

10. CPCs shall ensure that the skippers of their commercial and recreational/sport fishing vessels record on their fishing logbooks and landing declarations, or equivalent document for the sport/recreational fisheries, the number and weight of shortfin mako caught, dead discarded, released alive by estimated/measured body length and sex during each fishing operation.

The data shall be reported to the national or regional/local Authorities in accordance with their regulatory procedures and with a timing adequate to monitor the monthly consumption of their fishing opportunities as required by paragraph 5 above.

11. The data collected by the observers or the electronic monitoring system referred to in paragraph 2 shall be analyzed and submitted by the CPCs to SCRS at the latest 90 days before the ICCAT Annual Meeting.
12. On the basis of fishing logbooks, landing declarations/sales notes, sport/fisheries reporting, and observers/EMS reporting, CPCs shall provide not later than 15 September of every year, starting from 2020, by-catch reports of shortfin mako to the ICCAT Secretariat and to the SCRS. The information shall indicate the actual raw quantities as well as the projected overall quantities, of animals caught, discarded alive, discarded dead by sex, estimated/measured size and by depth ranges over a geographical grid of at least 1°x 1°.
13. The ICCAT Secretariat in close coordination with the SCRS shall verify that the current Statistical Forms are adequate to the scope of reporting the information as required by paragraphs 2, 5, 7, 10 and 12 above. Otherwise, revised statistical forms shall be presented for adoption by the SCRS in 2020.
14. In their Annual Reports, CPCs shall inform the Commission of steps taken to implement the provisions of this Recommendation through domestic law or regulations, including monitoring, control and surveillance measures.
15. CPCs are encouraged to investigate at-vessel and post-release mortality of shortfin mako including, but not exclusively, the application of hook-timers and of satellite tagging programs that may be provisioned primarily through the national support complementing possible funds allocation from the ICCAT to investigate the effectiveness of this measure.
16. In 2027, the SCRS shall conduct a stock assessment for North Atlantic shortfin mako, including projections for the various models considered. Following this stock assessment, the SCRS shall advise on the conservation effectiveness of the fisheries management measures established by this Recommendation and provide scientific advice for possible deliberations by the Commission in 2027.
17. The Secretariat shall report every year, starting from 2020, on the implementation of this Recommendation and on required adjustments by each and every CPC supposed to have shortfin mako by-catches.
18. Notwithstanding the reporting and stock assessment calendars established by the paragraphs above, the SCRS is required, any time suitable scientific information is made available by the national scientists and/or by the CPCs, to advise on the spatio-temporal identification of nursery areas/pupping grounds and on likely hotspots areas of permanent or seasonal by-catches of juveniles.  
  
On the basis of this advice, the Commission can further refine and integrate the provisions of this Recommendation to enhance the level of shortfin mako conservation.
19. The SCRS is requested to advise by 2021 at latest on the implementation of minimum standards for the use of Electronic Monitoring System in longline fishing vessels for swordfish as well as for tropical and temperate tuna fisheries.
20. Notwithstanding the provisions of Article VIII, paragraph 2 of the Convention, CPCs shall implement this recommendation as soon as possible in accordance with their regulatory procedures.
21. This Recommendation replaces and repeals *Recommendation by ICCAT on the Conservation of North Atlantic Stock of Shortfin Mako Caught in Association with ICCAT Fisheries* (Rec. 17-08).

**Minimum standards for safe handling and live release procedures<sup>1</sup>**

The following steps should be followed to reduce stress and injury to incidentally caught shortfin mako specimens for a maximum probability of shark survival while minimizing the safety risk to the crew. Skippers and crew should always put their personal safety first when releasing sharks, rays and other large fish. Wear gloves and avoid working around the jaws of sharks and tails of rays. These basic guidelines do not replace stricter safety rules possibly established by CPCs national Authorities.

- Stop the vessel or substantially reduce its 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.
- 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 breaks could shoot hook, weights and other parts toward the vessels and crew at high speed.
- Do not remove the alive shark from the water boatside, while safely removing the hook.
- Do not gaff the fish in the body.
- In case the hook is visible, lightly flicking the branchline to try dislodging the hook.
- Where feasible rig a measuring device so the fish can be roughly measured in the water (e.g. mark a pole, leader and float; mark the gunwale of the boat with measurements marks).
- If the shark is vigorously twisting and spinning making it too dangerous to use a dehooker/disgorger or the shark swallowed the hook that cannot be seen, then use a long-handled line cutter and cut the leader/line as close to the fish as safely possible so that they are not trailing large amounts of line that could reduce post-release survival.
- Help revive the fish by slowly towing it in the water until its colour or energy returns (5 minutes or more). Most highly migratory species must keep water flowing over their gills to breathe. With the boat in gear, slowly move forward while keeping the fish's head in the water.
- If hooked, and hook is visible in the body or mouth, use a bolt cutter to remove the hook barb, and then remove the hook.
- In purse seine fishing, some sharks tend to spin and roll themselves in the net. If entangled sharks are lifted up with the net towards the power block, this is dangerous to both the sharks and the crew. Thus, it is important to scan the net as far ahead as possible to spot the sharks as early as possible to react quickly and avoid that are lifted up with the net towards the power block. The speed of the net reel must be reduced 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, 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.

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<sup>1</sup> The guidelines are a reasoned compilation of recognized advices available at <https://www.bmis-bycatch.org/index.php/mitigation-techniques/safe-handling-release>

- Poisson F., Wendling B., Cornella D., Segorb C., 2016. Guide du pêcheur responsable : Bonnes pratiques pour réduire la mortalité des espèces sensibles capturées accidentellement par les palangriers pélagiques français en Méditerranée. Projets SELPAL et RéPAST. 60 pages.
- Poisson F., Vernet A. L., Séret B., Dagorn L. Good practices to reduce the mortality of sharks and rays caught incidentally by the tropical tuna purse seiners. EU FP7 project #210496 MADE, Deliverable 7.2., 30p.
- AFMA (2016) Shark and Ray Handling Practices - A guide for commercial fishers in southern Australia.

- Don't wrap your fingers, hands or arms in the line when bringing a shark or ray to the boat – you might get pulled overboard.
- Always approach the shark from behind, particularly if it has been brought on board; remain behind the head.
- Don't lift them using the branchline, especially if hooked.
- Do not lift using thin wires or cables or by the tail alone.
- Lifting should be undertaken with a minimum of two wide slings to support the weight of the animal whilst it is out of the water.
- Do not expose the shark to the sun for extended periods.
- If you anticipate that it will require more than 5 minutes to release a shark, then place a hose into its mouth so seawater is moderately flowing into it.
- It is best to handle medium to large sharks with two persons.
- You can calm a shark down by covering its eyes with smooth, wet and dark cloth.
- To prevent bites place an object, such as a fish or big stick in the jaw