

Safe handling and release of sharks

Best Practice Handbook



Long line fisheries in ICCAT waters

May 2022



FIP BLUES
*en route to longline fisheries
sustainability*

Activity co-financed by





The handbook

This handbook is intended for the fishermen of the long line fleet integrating FIP BLUES. It is a protocol of best practice when manipulating the gear and the animal and thus achieving the safe release of shark protected species in ICCAT waters and thus they cannot legally be caught. Logically, it also applies to specimens of unprotected shark species that are also released.

Objective

These basic guidelines aim at minimizing the stress and damage to the animal and, therefore, the post-release mortality; while always ensuring the safety of the crew



In those stressful situations the sharks' organism is more vulnerable to fatal damage to organs and heads. So every effort should be made not to damage them and to increase their chance of survival after release.

Sharks management in ICCAT



The biological characteristics of some sharks species (low growth rate, late maturation, long gestation, low fecundity and long life) make them susceptible to overfishing; on the other hand, other species as blue shark (*Prionace glauca*), has high abundance and production-renovation rate.



FIP Blues' members are committed to the fishery sustainability and the ecosystem approach. Accordingly, relevant efforts have been made for years to reduce shark mortality, in line with ICCAT recommendations for the conservation and management of sharks.



Most of shark catches consist of blue shark (*Prionace glauca*), a regulated species that is permissible to catch in North and South Atlantic. A very small percentage consists of shortfin mako (*Isurus oxyrinchus*), which currently can only be caught in the South Atlantic.



There are some interactions of protected species with the fishery which must be avoided or minimized. Those interactions vary depending on the fishing area and the season.



Remember!

Release

Data recording

Release the protected sharks quickly and unharmed, as far as possible, when they are brought to the vessel side, ensuring safe conditions for the crew.

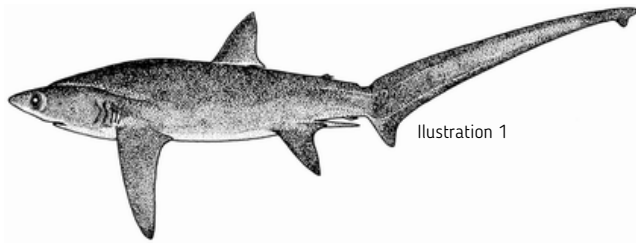
It is important to **write down the basic data of the released specimens in the DEA** (logbook) indicating their vital status (alive or dead) and length. The more and better data provided, the better the stock assessments for a given species will be.



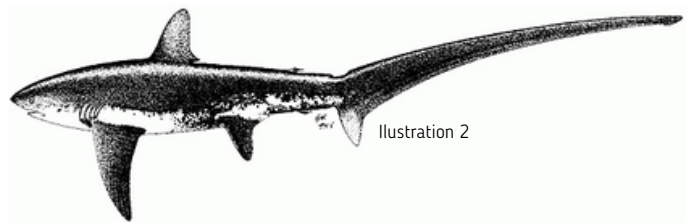
Main species that may interact with the fishery of binding release

(common name-scientific name-FAO code)

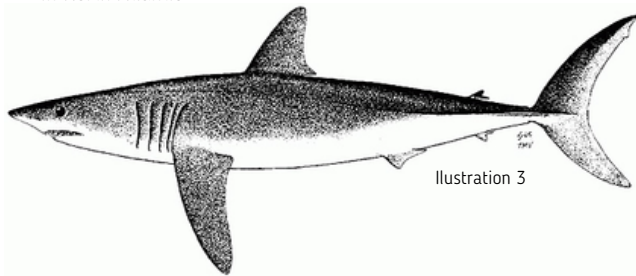
Bigeye thresher (*Alopias superciliosus*). BTH



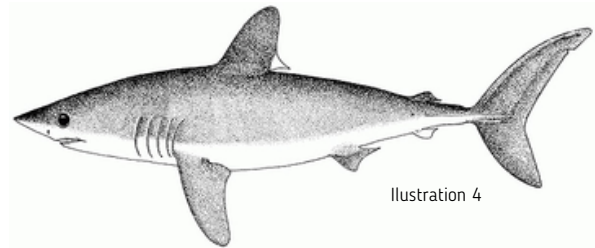
Common thresher (*Alopias vulpinus*). ALV



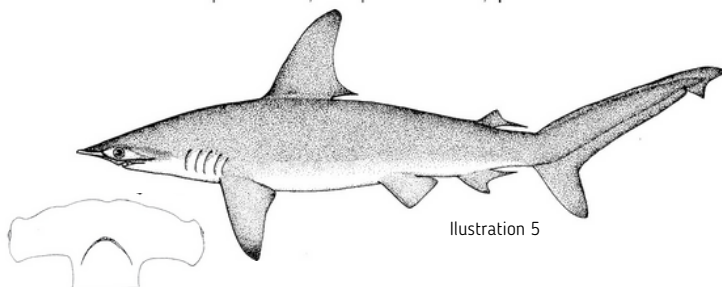
Shortfin mako (*Isurus oxyrinchus*). SMA
-in North Atlantic



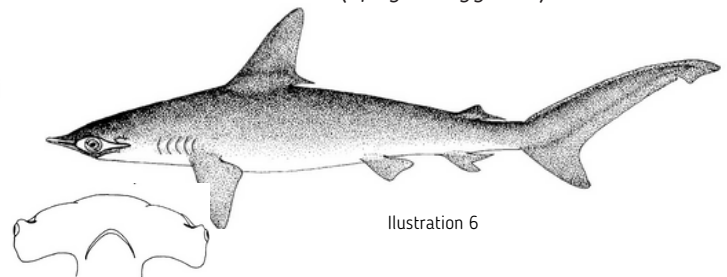
Porbeagle (*Lamna nasus*). POR



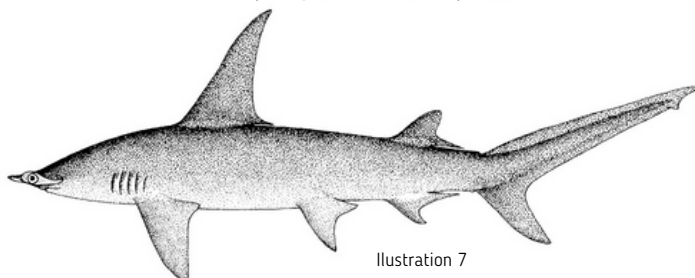
Scalloped hammerhead (*Sphyrna lewini*). SPL



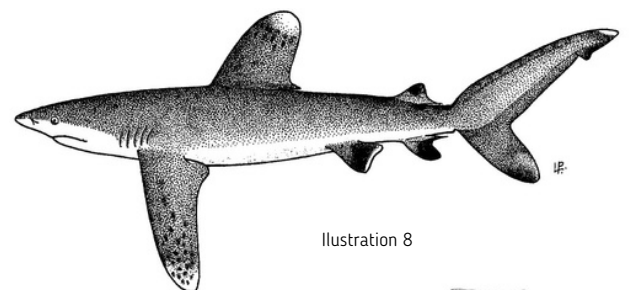
Smooth hammerhead (*Sphyrna zygaena*). SPZ



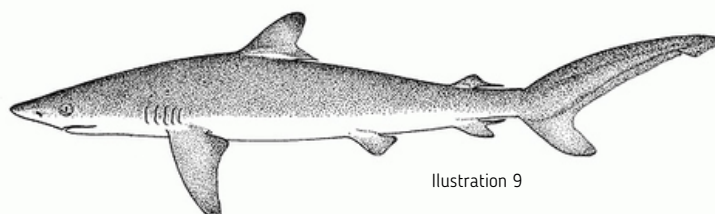
Great hammerhead (*Sphyrna mokarran*). SPK



Oceanic whitetip shark (*Carcharhinus longimanus*). OCS

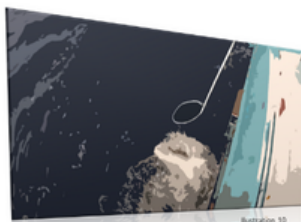


TSilky shark (*Carcharhinus falciformis*). FAL



Best practice for safe handling and release of sharks

Before proceeding to release



If it is operationally safe, stop the vessel or substantially reduce its speed.
The shark should remain in the water unless it is necessary to lift it for species identification.

At this stage, if possible, proceed to determine the species, vital conditions (alive or dead), and measure/estimate the length (if possible, the fork length: distance from the snout to the caudal fin fork, the bifurcation point); data to be recorded by the captain.

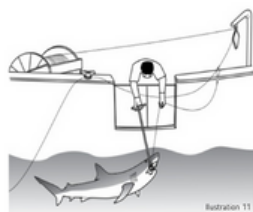


*When a tagged fish is found do not remove tag until you get the port and proceed according to IEO recommendations:
<http://www.co.ieo.es/tunidos/esp/MRrecaptura.php>*



DO NOT roll the line on fingers, hands, or arms when you bring a shark into the boat
(it can result in serious injuries)

Release: if possible, try to remove the hook with the dehooker while the shark is still in the water



If conditions are safe and the hook is visible on the body or the mouth, try to extract it with a long handled dehooker or a bolt cutter to cut the barb and then extract it. In case the shark is entangled with the line and needs to be lifted to the deck, carefully free the line from the animal and release it to the sea as quickly as possible with no entanglements attached. Always watch out to avoid potential bites and blows by the shark.



DO NOT try to remove a hook by pulling sharply on the branchline
Do not try to remove a hook located deep inside the jaw or was swallowed and cannot be seen



If the previous step is not possible, then proceed to cut the line with the cutter

Cut the line while the shark is in the water



Bring the shark as close to the vessel as possible without putting too much tension on the branchline to avoid the risk of a released hook or broken branchline shooting hooks, weights and other materials towards 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.



Cut the line of the trace as close to the hook as possible (ideally leaving as little line as possible and no weights attached to the animal).

Use a long handled tail rope to enhance the handling of the animal if it needs to be removed from the water to be released



DO NOT hit the shark and prevent it to hit the vessel side when it is lifted

If it is necessary to bring it onto the deck (for small specimens or other practical reasons)



> Be prudent at all times to avoid hits and bites

> For preventing bites put a dead fish or a big wooden stick placed into the jaw

> Ensuring safety conditions, use a dehooker to remove the hook barb and then remove the hook. Or, cut the line as close to the hook as possible.

> Minimise the time it takes to return it to the water to increase survival and reduce risks to the crew.



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This manual is framed within the Action 4 "Development of mitigation measures and best practice on board" of FIP BLUES project (<https://fipblues.com/>), currently under implementation. It aims to enhance the conservation of "threatened, endangered and protected species" ("ETP" species) by promoting the responsible fishing practices, which is already under development by the fleet. Information about these protected species could have changed since the edition of the manual. It may be updated periodically according to technical advances, new research and proposals from the sector and other relevant stakeholders.

Design and technical contents

Xoán Lueiro – Technical consultant of FIPBLUES

Illustrations

-Alberto Gennari, reproduced with permission. FAO and ACCOBAMS. 2019. Good practice guide for the handling of sharks and rays caught incidentally in Mediterranean pelagic longline fisheries. Rome. <http://www.fao.org/3/i9152en/i9152EN.pdf>. Protocol illustrations 13,16 e 17.
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-Gilman, E. (Editor). 2014. Methods for Longline Fishers to Safely Handle and Release Unwanted Sharks and Rays. Luen Thai Fishing Venture, Resources Legacy Fund, Secretariat of the Pacific Community, The Safina Center. Honolulu, USA. Reproduced with permission. Illustrations 11, 12,15 and 18.

Photographies

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Acknowledgments

To Jaime Mejuto (Researcher at the 'Grupo de investigación de Ecología de Grandes Peces Pelágicos Oceánicos' del Instituto Español de Oceanografía-Consejo Superior de Investigaciones Científicas. IEO-CSIC) and Gonzalo Mucientes (Researcher at IIM-CSIC) for the review of the manual.

To the fishing captains for the review of the manual and their knowledge to better understand sharks interactions with the fishery.

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