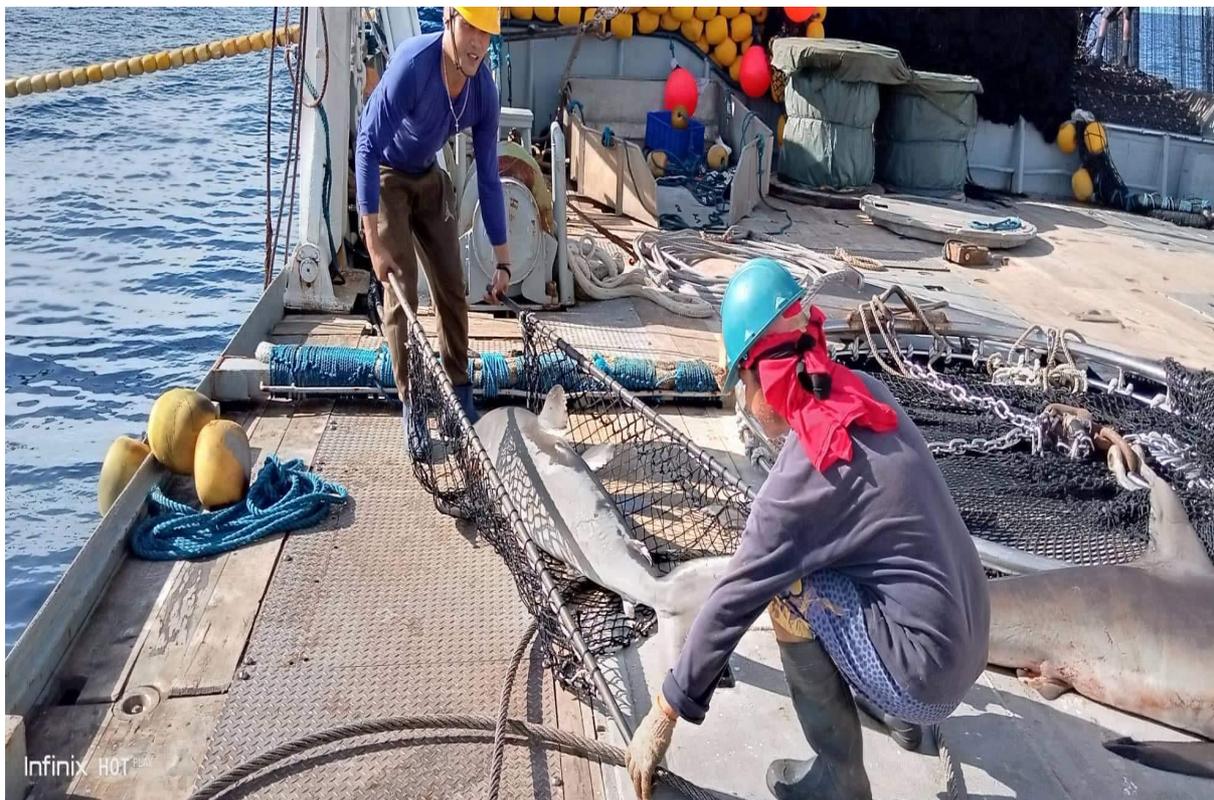




Tuna fleet best handling practices for the safe release of Sharks (other whale sharks and Mantas/Mobulids), Sea Turtles, Cetaceans, and Whale Sharks V1.0 | July 2022

In accordance with the Western Central Pacific Fishery Commission, Conservation Management Measure (CMM)





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Procedure Information:

These best handling practices for the safe release of the special species procedure have been prepared with the support of the Fishing Industry Association members (FIA) of Papua New Guinea (PNG).

This is a living document that will be reviewed on annual basis.

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Photo credit: F/V Niupelalip, Frabelle Fishing



1. INTRODUCTION

As part of the continuous improvements toward long-term sustainability of the PNG tuna fishery and the fisheries where FIA PNG tuna fleet operates, the Fishing Industry Association of Papua New Guinea is updating the best practices to protect Sharks, Turtles, Cetaceans, Mantas, Rays, and Whale Sharks.

These practices are implemented by the FIA PNG tuna fleet, and we want to harmonize our practices with the Western Central Pacific Fisheries Commission (WCPFC). These practices were created in 2012 and revised annually to be improved based on scientific data and observer data collected in our FIA PNG tuna fleet.

Taking from the WCPFC conservation and management measure for sharks (CMM2019-04)

FIA PNG is aware of the economic and cultural importance of sharks in the western and central Pacific Ocean (WCPO), the biological importance of sharks in the marine ecosystem as key predatory species, the vulnerability of certain shark species to fishing pressure, and the need for measures to promote the long-term conservation, management, and sustainable use of sharks, turtles, and rays population and fisheries; Also the need to collect data on catch, effort, discards, and trade, as well as information on the biological parameters of many species, to enable effective shark conservation and management;

Further, FIA PNG recognized that certain species of sharks and rays, such as basking shark and great white sharks, have been listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

2. DEFINITIONS

- (1) Sharks: All species of sharks, skates, rays, and chimaeras (Class Chondrichthyes)
- (2) Full utilization: Retention by the fishing vessel of all parts of the shark except the head, guts, vertebrae and skins, to the point of first landing or transshipment
- (3) Finning: Removing and retaining all or some of a shark's fins and discarding its carcass at sea.

3. APPLICATION

To FIA PNG tuna fishing vessel operators fishing in the PNG EEZ and AW as well as high seas and any other WCPFC waters.

It shall apply to Endangered, Treated and Protected (ETP) species listed in the FIA PNG SCS MSC fishery certification report May 2020, and any other sharks, Sea Turtle, Cetaceans, and Rays, caught in association with fisheries managed under the WCPF Convention

This is a guide for both new crew and experienced crew members, to encourage good handling practices on board and mitigate the mortality of species considered vulnerable that interact in purse seine fishing for tuna. FIA PNG fleet on a voluntary basis develops and implements this procedure to improve the maneuvers of tuna purse seiners and to minimize the impact on the marine ecosystem.



4. REFERENCES

This policy is aligned with:

- National Plan of Action on Sharks and Rays 2021-2024_A National Policy for the Management and Conservation of Sharks in Papua New Guinea.
- FAO International Plan of Action for the Conservation and Management of Sharks (IPOA). For the implementation of the IPOA, each CCM should, as appropriate, include its National Plan of Action for sharks in the Part 2 Annual Report.
- Western Central Pacific Fisheries Commission WCPFC: CMM 2010-07; CMM 2011-04; CMM 2013-08; CMM 2014-05; CMM 2019-04; O7-03; Res C-16-01; C-19-04; CMM-2011-03; CMM 2019-05
- Good Practices for the Mitigation of the Environmental Impacts of the Fishing of High Purse Seine.
- Guidelines to reduce mortality of sea turtles in fishing operations FAO 2011
- Information document for the Kobe II Workshop on SHARKS bycatch.
- Information document for the Kobe II Workshop on Turtle bycatch.
- Good practice guide to reducing mortality of ray sharks caught by accident by tropical purse-seine tuna vessels.

5. MANOEUVRES ASSOCIATED SPECIES RELEASE

5.1 Sharks

While the number of sharks incidentally caught by purse seiners is not significant when compared to the number of individuals caught by other gears, it can be reduced by applying suitable handling and release protocols.

If a Shark is discovered when the catch is brailled onboard, our FIA PNG tuna fleet members shall follow the WCPFC CMM

Do's

Safety of the Crew is the priority to consider before and during these manoeuvres. Vessels are required to have a net carrier, a tarp on board and/or similar equipment next to the brailer, so that sharks on deck can be more easily handled. Also, it is recommended to install chutes and ramps on the fishing deck for quicker and easier release of animals.

If in purse seine net:

- Release sharks while they are still free-swimming whenever possible (e.g.backdown procedure,submergingcorks, cutting net) as quickly as possible.
- For sharks that can not be released from the purse seine net, consider removing them using a hook and line with precaution.



If in brail or on deck:

- For sharks that are too large to be lifted safely by hand out of the brailer, they are preferable to be released using a purpose-built large-mesh cargo net, canvas sling, or similar device. If the vessel layout allows, these sharks could also be released by emptying the brail directly on a ramp held up at an angle that connects to an opening on the top deck railing, without the need to be lifted or handled by the crew.
- Generally, small sharks are fragile and need to be handled very carefully. If this can be done safely, it is best to handle and release them with two or one person using both hands. When entangled in netting, if safe to do so carefully cut the net away from the animal and release to the sea as quickly as possible with no netting attached.

Don'ts

- Do not wait until hauling is finished to release sharks. Return them to the sea as soon as possible.
- Do not cut or punch holes through the shark's body.
- Do not gaff or kick a shark and do not insert hands into the gill slits.
- Do not use hooks, claws, or similar instruments to manipulate sharks.
- Do not lift a shark by the head, tail, gill slits, or spiracles.

5.2 Whale shark (it is also applicable to Cetaceans)

FIA PNG tuna fleet follows and complies with the CMM that prohibits vessels from setting a purse seine on a school of tuna associated with a whale shark if the animal is sighted prior to the commencement of the set. These animals usually swim underwater and it is not spotted during the tuna set, making it difficult for fishers and observers to predict their presence.

FIA PNG tuna fleet is prohibited vessels flying their flag and vessels under charter arrangements to the CCM from retaining on board, transshipping, or landing any whale shark caught in the Convention Area, in whole or in part, in the fisheries covered by the Convention. For fishing activities in Parties to Nauru Agreement (PNA) exclusive economic zones, the prohibition in paragraph (1) shall be implemented in accordance with the Third Arrangement implementing the Nauru Agreement as amended on 11 September 2010.

In the event that a whale shark is incidentally encircled in the purse seine net, the master of the vessel shall:

- (a) ensure that all reasonable steps are taken to ensure its safe release.; and
- (b) report the incident to the relevant authority of the flag State (NFA), the fishing company office by email and in the logbook, including the number of individuals, details of how and why the encirclement happened, where it occurred, steps taken to ensure safe release and an assessment of the life status of the whale shark on release.

When the whale shark is floating on the surface

- The fishermen must gradually haul the net to bring the animal towards the closest cork line. The net shall always be pulled from the animal's tail toward its head, along its belly, attempting to make the fish move towards the cork line.
- If the animal is small (2 metres long minimum), it may be released carefully using the brailer.



- Partially sink the cork line to enable the animal to leave over the net.
- Wait for the animal to freely swim out of the net.
- The catch may be brought on board only after the animal has been released from the net.

When the whale shark does not appear on the surface

- The captain shall supervise the operation; the crew may begin bringing the catch on board until the animal appears on the surface. At this point, crew must cease brailing the tuna and follow the procedure in point A.

When the animal is trapped in the bunt with its head facing sternward

- In this case, the release maneuver to get the animal out over the cork line becomes very difficult, and the most effective maneuver known is this: Once the animal is in the bunt, the crew must locate the purse line closest to the animal's head and cut a couple of fathoms of the net from where the purse line is attached, to make a window through which the animal can escape, lowering the net a little to place the window underwater.

5.3 Sea turtles

The capture of sea turtles in the purse-seine tuna fishery is also incidental, they are caught in very small numbers by purse seiners, with most (greater than 90%) released alive relatively easily. Using non-entangling FADs can prevent turtle entanglement (ISSF, 2017).

FIA PNG tuna fleet follows the recommendations of the RFMO on sea turtles, crew must attempt by all means to release every turtle entangled in floating objects or encircled by the purse seine net. If an entangled turtle is found, the net hauling operation must be stopped immediately so that the animal does not go through the powerblock. Whenever possible, the crew must release all turtles they find inside the net, trying to prevent any injury.

If the turtle is accidentally injured in any way during the operation, it shall be kept on board in a wet, shadow, cool place, and it must be completely recovered before it is released. If the turtle is carrying any pieces of plastic or bits of nets on it, the foreign items must be removed and/or disentangled, even if these materials do not originate from that vessel. Also, if the crew finds an entangled turtle when visiting a FAD without setting on it, it must disentangle the turtle and release it using the same procedure. To handle a turtle, the crew must hold the animal by the shell and avoid the head area, to protect it from catching their hands if the turtle should draw its head in.

Do's

- Handle the turtle with two people
- Keep the turtle wet all the time, use towels when it is needed, and practical, without covering the nostrils or the mouth)

Don'ts

- Do not leave the animal turned upside down
- Do not hold the animal by its flippers, because turtle's flippers are sensitive and could become dislocated.
- Do not use a crane with ropes/chains to suspend them.



5.4 Manta Rays

Mobulid rays” means species of the family Mobulidae, which includes manta rays and Mobula rays, these are incidentally caught by tuna purse seiners operating in the Western Central Pacific Ocean Waters.

FIA PNG prohibits their vessels from targeted fishing or intentional setting on mobulid rays in the Convention Area.4. Also, FIA PNG prohibits their vessels from retaining on board, transshipping, or landing any part or whole carcass of mobulid rays caught in the Convention Area.5. FIA PNG require their fishing vessels to promptly release alive and unharmed, to the extent practicable, mobulid rays as soon as possible, and to do so in a manner that will result in the least possible harm to the individuals captured.

Do's

- Release rays while they are still free-swimming whenever possible (e.g., back down procedure, submerging corks, cutting net).
- It is preferable that larger rays (>60 kg), that are too large to be lifted safely by hand are brailed out of the net and released using a purpose-built large-mesh cargo net or canvas sling or similar device as recommended in document SC08-EB-IP-12 (Poisson et al. 2012, Good practices to reduce the mortality of sharks and rays caught incidentally by the tropical tuna purse seiners).
- It is preferable that release nets or devices are prepared prior to each set.
- It is preferable that small (<30 kg) and medium rays (30-60 kg) are handled by 2 or 3 people and carried by the sides of its wings or preferably using a purpose-built cradle/stretchers while ensuring the safety of the crew.
- 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.
- Oversized stingrays that cannot be safely released before being taken aboard are required to be returned to the water as quickly as possible from the deck, preferably using a paddle ramp from the deck to an opening on the side of the ship or, if a ramp is not available, placing them on a cargo net or chinguillo and release them with the help of a crane.

Don'ts

- Do not leave a ray on deck until hauling is finished before returning it to the sea.
- Do not punch holes through the bodies of rays (e.g., to pass a cable or line through for lifting the ray).
- Do not gaff, drag, carry, lift or pull a ray by its “cephalic lobes” or tail or by inserting hooks or hands into the gill slits or the spiracles.
- Do not pass lines through the brachial grooves and lift them



6. OBSERVER ONBOARD AND REPORTING

FIA PNG tuna fleet complies with the NFA requirement of 100% observer on board coverage that also collects and reports the fishing operation onboard, therefore any non-target species information recorded for each day in real-time with fishing operations is reported to the PNG authority – National Fishery Authority NFA.

FIA PNG tuna fleet and Captains collaborate with observers to collect biological samples from oceanic sharks as needed.

7. COMMUNICATION, TRAINING, AND CAPABILITY BUILDING

FIA PNG develops policy and procedures for handling these species, which are also supported by an infographic that is displayed onboard our FIA PNG tuna fleet.

FIA PNG aims that fishers are aware of proper mitigation, identification, handling, and releasing techniques and should encourage them to keep on board all necessary equipment for the safe release of mobulid rays.

FIA PNG office provides workshops on a regular basis to Captains, Crew, and Fishing company managers on how to handle onboard and release these species. We support continuous training with the training material, procedures, and videos.

We request our FIA PNG tuna fleet to film and take photos of these maneuvers onboard with sharks, Turtles, Whale Sharks, and Rays to demonstrate compliance but also to teach new crew coming onboard.

8. RESEARCH

FIA PNG continuously supports research with government bodies, sharing the data collected onboard our fishing vessels that will be assessed by NFA, WCPFC, SPC, and FFA.

Data is a priceless source of research, without data, research and fishery management decision are not possible, we at FIA PNG give priority to research and transparency in sharing our data, attending WCPFC meetings, also complying with the WCPFC Conservation Measures Management (CMM).

9. FIA PNG TECHNICAL WORKING GROUP RESPONSIBILITY

Our policy and procedure development request the review and revision of each new document by an expert and experienced committee made up of fleet representatives, competent professionals, and technical specialists in fishing. This team will make sure the right application of the procedure onboard our tuna fleet and maintain updates us about any progress or challenge. We have continuous meetings on a regular basis and meeting minutes are recorded by the Sustainability & CSR Director.



10. HISTORY OF REVISION

Revision No	Date	Reasons/Details
0.1	July 2021	Creation of FIA PNG Best practices for safe release of Sharks, Turtles, Rays and Whale Sharks
1.0	26th August 2022	Full document review by FIA PNG TWG



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