Good Practices for Responsible Tuna Purse-Seining

The good practices below are aimed at improving the tuna purse-seining fleet's practices in every ocean across the world. They reflect the practices implemented by the OPAGAC/AGAC and ANABAC-OPTUC fleet to make tuna purse-seining more selective and sustainable, for a responsible approach to fishing that minimises the impact of tuna purse-seining on the marine ecosystem and makes the management of sustainable tuna purse-seining possible. This code was signed in 2012 and is revised each year to include improvements based on the latest scientific findings. The agreement is based primarily on the following points:

1. The design and use of FADs (fish aggregating devices) that do not entangle sensitive associated species (primarily turtles and sharks).
2. The development and application of releasing techniques that are pose less risk to associated species and optimise those species' survival. This includes materials and equipment provided expressly for releasing associated species.
3. The application of a FAD management system through the implementation of a FAD logbook.
4. 100% observer coverage, including support vessels.
5. Training for fishing masters, crew and scientific observers.
6. Scientific verification of activities related with good practices and continuous tracking by a steering committee.

1. Non-entangling FAD Design

Work has been conducted since 2012 to arrive to a consensus on an alternative design of FADs that minimise impact on non-target species, especially turtles and sharks. The results set the foundations for gradually replacing the FADs used by the OPAGAC/AGAC and ANABAC-OPTUC fleet with new, non-entangling models with the agreed basic features, in the understanding that these features will be the minimum standard and that each company can develop and apply designs and materials that do even more minimise impact on non-target species and the marine environment. Replacement will begin immediately for the entire OPAGAC/AGAC and ANABAC-OPTUC fleet and is expected to be completed by the end of 2015.

COMPONENTS OF NON-ENTANGLING FADS: MANDATORY MATERIALS AND FEATURES.

RAFT

It is agreed that the raft that keeps the device afloat must:

· be free of elements (uncovered)
· or be covered with a non-entangling material (such as hessian or thickly-woven cloth)
· or be covered with netting whose mesh size is no more than 7 cm (2.5 inches), which the ISSF has approved as a material with a low entangling risk.

TAILS/UNDERWATER PART

All items hanging from the raft must be non-entangling. These items may be made of:

· simple ropes,
· or netting with a mesh size of no more than 7 cm,
· or netting with a mesh size of over 7 cm but bound into "sausages",

· or any other non-mesh material (such as canvas).
Submerged structures may present additional pieces and dangling attractors (e.g., palm leaves, netting panels), provided that their mesh size is not more than 7 cm.

2. Associated Species Release Manoeuvres

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 any sharks are discovered when the catch is being hauled on board, they must be released from the deck (provided that a single person can handle and release them), as quickly and carefully as possible, to avoid harming the animals. The necessary precautions must always be taken to keep crew safety during the releasing process of dangerous animals. Crew must particularly avoid grabbing sharks uniquely from the tail or the gills, to avoid injuring the animal and to protect the crew from dangerous reactions. Nooses or poles may not be used to release sharks appearing on the surface. If sharks are found inside the seine, the crew must attempt to get them out of the net using the brailer employed to bring the catch on board, even if a certain amount of fish (2-3 tonnes) is lost, or else must use some other cradle-like device, to avoid the possibility of injury. Likewise, if sharks cannot be released immediately, it is recommended to keep the animals wet, in the shade and if possible breathing freely. The fleet is strict and utterly inflexible about the practice of shark finning. Shark finning is strictly forbidden on all vessels of the fleet.

Ships are obligated to have a net carrier, a stretcher or a tarp on board and/or similar equipment alongside the brailer, so sharks found on deck can be handled more easily. Also, it is recommended to have chutes installed in the fishing deck to make releasing animals quicker and easier.

Once the animal has been released, the crew must check that the animal is behaving normally and must log the operation in the fishing logbook. If any strange behaviour is observed, this must be recorded in the fishing logbook too.

Sea Turtles

Following the recommendations of the four tuna regional fisheries management organisations (RFMOs) on sea turtles,[1] crew must attempt by any and all means to release every turtle entangled in the objects or encircled by the nets when the purse seine closes. If an entangled turtle is found, the net haulback operation must be stopped immediately so that the animal does not go through the powerblock. Whenever possible, the crew must release all turtles they can locate inside the net, without allowing them to be injured. If an animal is injured in any way during the operation, it must be kept on board in a wet, cool place, and it must be confirmed to be recovered successfully before it is released. If the turtle is carrying any plastic items or bits of nets on it, or if it has any longline hooks embedded, the foreign items must be removed and/or disentangled, even if they do not come from the crew's own vessel. Likewise, if the crew find an entangled turtle when visiting a FAD without setting on it, the crew must disentangle the turtle and release it using the same procedure. To handle a turtle, crew must grasp the animal by the shell but

[1] ICCAT: Resolution 2010-09 replacing Resolution 2003-11.
IOTC: Resolution 2009-06 replacing Resolution 2005-03.
IATTC: Recommendation 2007-03 summarising measures taken since 2000.
WCPFC: Management measure CMM 2008-03.

avoiding just where the head is, to protect their hands if the turtle should draw its head in. It is extremely important not to hold the animal by its fins, because turtle's fins are sensitive and could become dislocated. If a turtle appears not to respond to stimuli or is inactive, it is recommended to place it in the resuscitation position if necessary to help it recover more easily. To place a turtle in the resuscitation position, the crew must lift the animal by its rear legs by about 15 cm, with its head downward, and place something beneath it to maintain the turtle in this position. The crew must wet the turtle from time to time and keep it out of direct sunlight.

Thanks to these practices, the mortality rate of sea turtles in the OPAGAC/AGAC and ANABAC-OPTUC purse seine fleet is practically zero.

Once the animal has been released, the crew must check that the animal is behaving normally and must log the operation in the fishing logbook. If any strange behaviour is observed, this must also be recorded in the fishing logbook.

Skates and Rays

Although very few skates and rays are involved in purse seine sets, a very simple, safe protocol is in place for their release should they appear. This procedure is based on trying to get the animals out of the purse seine either using the brailer employed to bring the catch on board, even if a certain amount of fish (2-3 tonnes) is lost, or using some cradle-like device or specific equipment, to minimise any possibility of injury.

If the animal is not detected or cannot be released before it is brought on board, it must be released from the deck. The recommendation is to have a carrier, tarps and/or similar equipment alongside the brailer for handling large individuals more easily when they are found on deck, and to release them with the aid of the crane. There are also methods such as the cargo net or rigid grills with wide slots, which are placed over the chute so the fish can be unloaded while the animal stays on top and is released with the crane alongside. If on the other hand skates or rays are released by hand, crew are recommended to avoid handling the animal uniquely by its tail, gills or the cephalic lobes, to avoid injury and dangerous reactions. Crew are particularly recommended to avoid the rear of a ray, due to the poisonous spike many rays have at the end of their tail. It is therefore preferable to handle these animals from the front, gabbing them around their pectoral fins.

Once the animal has been released, the crew must check that the animal is behaving normally and must log the operation in the fishing logbook. If any strange behaviour is observed, this must be recorded in the fishing logbook as well.

Whale Sharks

Most RFMOs (IOTC, IATTC, WCPFC) have implemented measures prohibiting fishing practices that intentionally target setting on whale sharks. However, these animals may be trapped in the net unintentionally, because they often swim far below the surface, making them difficult for the crew to be detected before setting the net. Although the whale shark releasing manoeuvre is somehow difficult, the crew must take all possible measures to avoid injuring the animal.

If a whale shark is found in the purse seine, the crew must haul the net carefully to isolate the whale shark in a small area of the bunt. After this, crew may take the following measures, depending on the condition of the sea and animal's behaviour. At all times crew safety must be guaranteed.

A) When the whale shark is floating on the surface

A.1. The fishermen must gradually haul the net to bring the whale shark closer to the closest cork line. The net must always be pulled from the shark's tail toward its head, along its belly, attempting to make the fish slip toward the cork line.
A.2. If the shark is small (2 metres long minimum), it may be released using the brailer.
A.3. Partially sink the cork line to enable the whale shark leave the net.
A.4. Wait for the whale shark to freely swim out of the net.
A.5. The catch may be brought on board only after the shark has been freed from the net.

B) When the whale shark does not appear on the surface

Crew may begin bringing the catch on board until the shark appears on the surface. At this point crew must cease bringing in the tuna and follow the procedure in point A.

C) When the whale shark nudges the net with its head before the corks go down

Sometimes the shark will nudge the net before the crew can submerge the cork line, and it is difficult to get the animal back. In these cases, the crew must work from the boat to submerge the cork line with weights or must work with poles or rods to enable the animal to get its head free above the cork line.

D) When the shark is trapped in the bunt with its head facing sternward

In this case, the release manoeuvre that involves getting the animal out over the cork line becomes very difficult, and therefore the most effective manoeuvre is this: Once the shark is in the bunt, the crew must locate the purse line closest to the shark's head and cut a couple of fathoms from where the purse line is attached, to make a window through which the shark can get out, lowering the net a little to bring the window under the water. No matter what the circumstances and the measures taken to release the animal, the crew must check that the animal is behaving normally and must log the operation in the fishing logbook. If any strange behaviour is observed, this must be recorded in the fishing logbook too.

3. FAD Management System

OPAGAC-AGAC and ANABAC-OPTUC agree to comply with the FAD management system and plan developed and implemented by the pertinent authorities. This includes the collection of certain minimum information about the activities associated with FAD fishing.

4. 100% Observer coverage, including support vessels

The agreement considers it necessary and mandatory to have 100% coverage of fishing activities as of 1 January 2015 and extends the 100% coverage rate to support vessels as of 1 January 2017. This coverage rate converges with the requirements of the WCPFC and the IATTC and goes beyond the current requirements set by the ICCAT (10%) and the IOTC (5%). The information gathered during fishing trips to verify good practices compliance is recorded by specifically trained scientific observers, and more recently, also by electronic monitoring systems validated and approved by the scientific agent backing this code. In any case, the minimum coverage for purse seiners to maintain in terms of human observers is 10% (unless where RFMOs requirements say the contrary*)*. That means one fishing trip per year or the equivalent of roughly 30 days at sea per vessel. The coverage for auxiliary vessels may be provided entirely by electronic observers due to vessels' space problems.

5. Training for fishing masters, crew and scientific observers

The professional fishing crew and the scientific observers on board are all trained specifically about the items covered in this good practice code. They are especially taught on the manoeuvres for handling and releasing marine species and the correct construction and use of FADs. Similarly, the code encourages the training of scientific observers to collect high-quality data, and thus it works to develop appropriate local and third-country observer training. Training periods are also used to evaluate programme follow-up and learn about any difficulties that have arisen.

6. Scientific verification of activities related with Good Practices and continuous follow-up by a steering committee

All activities mentioned in this document are verified by an independent scientific organisation that tries to guarantee programs correct functioning. The scientific organisation works to gather the data collected from all the observer organisations and processes that information so it can be analysed on a per-vessel and per-trip basis. The results are used to make half-yearly compliance reports and provide specific advice when necessary. Moreover, results are used to continuously improve the good practice code, by specific advice and decisions taken by a Steering Committee. This Committee will have the pertinent scientific advisory support and will meet half-yearly to see to how the code is applied, find practical solutions for structural and one-off problems and keep the programme updated, always following the recommendations and suggestions of the scientific advisors.

This text is the third revised version agreed to by the signatories of the Agreement of 20 February 2012 on the Good Practice Code, and it replaces the Agreement of 20 February 2012 and its revision of June 2015.

Sukarrieta, 21 February 2017.

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