



Comisión Interamericana del Atún Tropical
Inter-American Tropical Tuna Commission

DIRECTRICES DE MEJORES PRÁCTICAS DE MANIPULACIÓN Y LIBERACIÓN DE TIBURONES EN LAS PESQUERÍAS DE LA CIAT

DRAFT BEST HANDLING AND RELEASE PRACTICE GUIDELINES FOR SHARKS IN IATTC FISHERIES

SAC-15-11

Melanie Hutchinson, Jon Lopez & Alexandre Aires-da-Silva

15ª Reunión del Comité Científico Asesor - 10-14 de junio de 2024
15th Meeting of the Scientific Advisory Committee – 10-14 June 2024
La Jolla, California, USA-EE.UU.



Resolution C-23-07

INTER-AMERICAN TROPICAL TUNA COMMISSION

101st MEETING

Victoria, B.C., Canada
7-11 August 2023

RESOLUTION C-23-07¹

CONSERVATION MEASURES FOR THE PROTECTION AND SUSTAINABLE MANAGEMENT OF SHARKS

The Inter-American Tropical Tuna Commission (IATTC), gathered in Victoria, B.C., Canada, at the occasion of its 101st meeting:

12. The IATTC scientific staff, in collaboration with the IATTC SAC and EBWG, shall develop and recommend to the Commission a set of best handling guidelines for the safe release of sharks for inclusion in this measure in 2024. In the meantime, CPCs may elect to, as appropriate, use the safe handling and release guidelines for purse seine vessels described in Annex 3.

COMISIÓN INTERAMERICANA DEL ATÚN TROPICAL

101^a REUNIÓN

Victoria, B.C., Canadá
7-11 de agosto de 2023

RESOLUCIÓN C-23-07¹

MEDIDAS DE CONSERVACIÓN PARA LA PROTECCIÓN Y ORDENACIÓN SOSTENIBLE DE LOS TIBURONES

La Comisión Interamericana del Atún Tropical (CIAT), reunida en Victoria, B.C., Canadá en la ocasión de su 101^a Reunión:

12. El personal científico de la CIAT, en colaboración con el CCA de la CIAT y el GTECI, desarrollará y recomendará a la Comisión un conjunto de mejores directrices de manipulación para la liberación segura de tiburones para su inclusión en esta medida en 2024. Mientras tanto, los CPC pueden optar por utilizar, según proceda, las directrices de manipulación y liberación seguras descritas en el Anexo 3.

‘the IATTC scientific staff, in collaboration with the IATTC SAC and EBWG, shall develop and recommend to the Commission a set of best handling guidelines for the safe release of sharks for inclusion in this measure in 2024’

Background: Memo 0473-410

COMISION INTERAMERICANA DEL ATUN TROPICAL (CIAT) INTER-AMERICAN TROPICAL TUNA COMMISSION (IATTC)

MEMORANDUM

26 September 2023
Ref.: 0473-410

To: Commissioners and Heads of Delegation
c.c.: Bolivia, Chile, Honduras, Indonesia, Liberia
From: Arnulfo Franco, Director
Re: Guidelines for best handling and release practices (BHRP)

A. As you may recall, the Permanent Working Group on Ecosystem and Bycatch (EBWG) at its first meeting and the Scientific Advisory Committee (SAC) at its 14th meeting ([IATTC-101-03](#)), both recognized the need to develop best handling and release practice (BHRP) guidelines for vulnerable bycatch species (seabirds, sea turtles, marine mammals, sharks and rays).

Accordingly, the SAC endorsed the EBWG recommendation that CPCs and other relevant stakeholders support the IATTC staff in a survey to gather details of national efforts or programs that can help elucidate post-release survival rates of vulnerable species captured in the various fisheries under the purview of the IATTC.

B. In accordance with the above, all CPCs are invited to:

1. Provide existing BHRP guidelines
2. Provide existing PRS data
3. Identify/designate subject matter experts (SME)

1. Proporcionar directrices y/o reglamentos existentes sobre las mejores prácticas de manejo y liberación
2. Proporcionar datos
3. Identificar y designar a los expertos en la materia que podrían colaborar en la elaboración de las directrices antes mencionadas para cada taxón y pesquería

Draft Shark BHRP Guideline Development Process

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INTER-AMERICAN TROPICAL TUNA COMMISSION (IATTC)

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- B. In accordance with the above, all CPCs are invited to:

Responses to Memo 0473-410

- (Canada, Columbia, Chile, Ecuador, EU, French Polynesia, Peru, US)

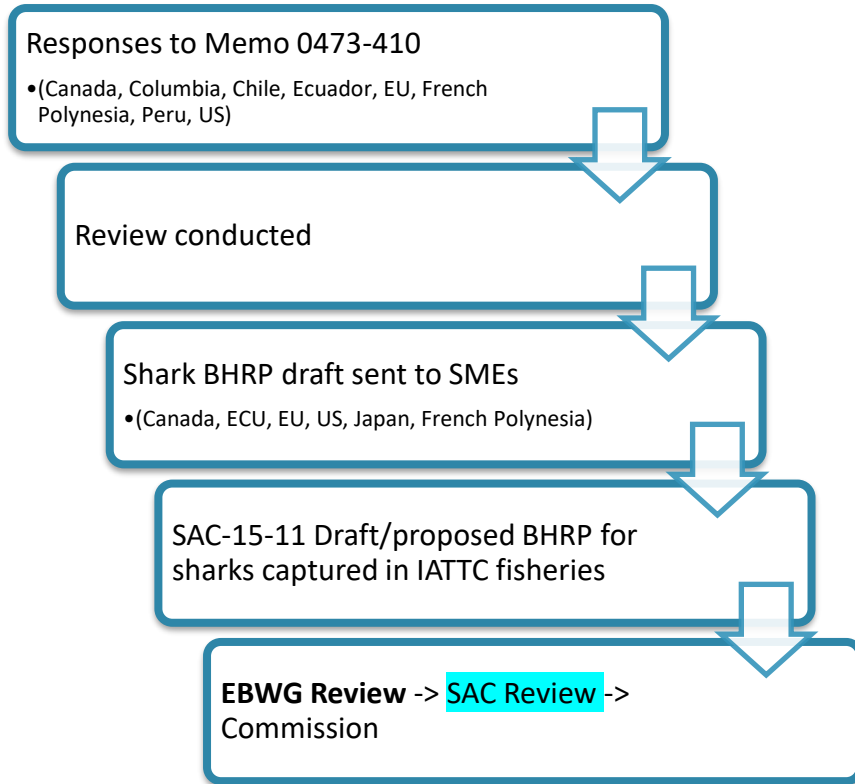
Review conducted (Responses, national BHRPs, available data, literature, reports)

Phase 3 (EB-02-03): Development & Adoption of BHRP by Taxa

Phase	Activities	2023				2024				2025				2026			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3) Adoption of BHRP under current state of knowledge	Identification of subject matter experts (SME) for each taxa & formation of SME groups				Shark												
	Consultation with SME groups for BHRP development				Shark												
	Commission Meeting: Adoption of interim BHRPs for each taxa and fishery							Shark									



Draft Shark BHRP Guideline Development Process



- Draft guidelines are the result of a thorough review & consultation process
- Data driven -> recommendations have measurable impacts on survival
- Draft BHRP guidelines provided by fishery (purse seine, longline, gillnet) in Annex 1 (SAC-15-11)

Draft BHRP Guidelines

Resolution C-23-07

BYCATCH AND RELEASE

10. CPCs shall prohibit vessels targeting tuna and/or swordfish from using buoy lines.

11. All sharks (alive or dead) that are not retained must be promptly released unharmed, to the extent practicable, as soon as they are seen on the line, entangled in the net or brailled on the deck, taking due consideration of the safety of any persons using the following procedures:

For purse seine vessels:

- when seen entangled in the net, disentangle the sharks and release them into the ocean as soon as possible.
- sharks brailled on deck must be returned to the water as soon as possible, either utilizing a ramp from the deck connecting to an opening on the side of the vessel, or through escape hatches. If ramps or escape hatches are not available, the sharks must be lowered with a sling or cargo net, using a crane or similar equipment, or as indicated in Annex 3 or any future revisions, as identified pursuant to paragraph 12.
- prohibit the use of gaffs, hooks, or similar instruments for the handling of sharks.
- prohibit the lifting of sharks by the head, tail, gill slits, or spiracles, or by using bind wire against or inserted through the body. Prohibit the punching of holes through the bodies of sharks (e.g., to pass a cable through for lifting the shark).
- prohibit the lifting of whale sharks (*Rhincodon typus*) onboard the vessel and prohibit the towing of whale sharks out of a purse-seine net, e.g., using towing ropes.

For longline vessels:

- leave the shark in the water, where possible.
- use a line cutter to cut the branchline as close to the hook as possible, and so that less than 1 meter remains on the animal, to the extent practicable.

12. The IATTC scientific staff, in collaboration with the IATTC SAC and EBWG, shall develop and recommend to the Commission a set of best handling guidelines for the safe release of sharks for inclusion in this measure in 2024. In the meantime, CPCs may elect to, as appropriate, use the safe handling and release guidelines for purse seine vessels described in Annex 3.

CAPTURA INCIDENTAL Y LIBERACIÓN

10. Los CPC prohibirán a los buques que pesquen atún y/o pez espada usar líneas de boyas.

11. Todos los tiburones (vivos o muertos) que no sean retenidos deben ser liberados con prontitud e ilesos, al grado factible, tan pronto sean observados en la línea enredados en la red o salabardos en la cubierta, teniendo debidamente en cuenta la seguridad de cualquier persona usando los siguientes procedimientos:

Para los buques cerco:

- Cuando sean avistados enredados en la red, desenredar los tiburones y liberarlos al agua lo más pronto posible;
- Los tiburones salabardeados en cubierta deberán ser liberados al agua lo más pronto posible, ya sea utilizando una rampa desde la cubierta conectada a una apertura en el costado del buque, o a través de escotillas de escape. Si no hay rampas o escotillas disponibles, se deben bajar los tiburones en un cabestrillo o una red de carga, usando una grúa o equipo similar, o como se indica en el Anexo 3 o futuras revisiones, como se dispone en el párrafo 12.
- Prohibir el uso de garfios, ganchos, o instrumentos similares para manipular los tiburones.
- Prohibir levantar los tiburones por la cabeza, cola, hendiduras branquiales, o espiráculos, o mediante el uso de alambre alrededor o a través del cuerpo. Prohibir perforar el cuerpo del tiburón (por ejemplo, para pasar un cable para levantar al tiburón).
- Prohibir subir tiburones ballena a bordo del buque y prohibir remolcar tiburones ballena (*Rhincodon typus*) para sacarlos de una red de cerco, usando sogas de remolque, por ejemplo.

Para los buques palangeros:

- Dejar al tiburón en el agua, siempre que sea posible.
- Utilizar un cortador de línea para cortar la brazolada lo más cerca posible del anzuelo y de forma que quede menos de 1 metro de línea en el animal, en la medida de lo posible.

12. El personal científico de la CIAT, en colaboración con el CCA de la CIAT y el GTECI, desarrollará y recomendará a la Comisión un conjunto de mejores directrices de manipulación para la liberación segura de tiburones para su inclusión en esta medida en 2024. Mientras tanto, los CPC pueden optar por utilizar, según proceda, las directrices de manipulación y liberación seguras descritas en el Anexo 3.

Purse Seine: Literature & Data Review (SAC-15-11 Table 1)

- 8 studies
- Indian Ocean, Pacific Ocean (WCPO & EPO), Eastern Atlantic Ocean
- Survivorship is compromised once confined in the sack
- Survivorship is lowest when sharks are sorted on lower decks

TABLE 1. Shark post release survival studies conducted in purse seine fisheries (modified from EB-01-01, Rev1 Table 2c). Regions: IO = Indian Ocean, WCPO = Western Central Pacific Ocean, EPO = Eastern Pacific Ocean, EAO = Eastern Atlantic Ocean. Flags: FRN=France, US = United States, ECU = Ecuador, EU = European Union. Species: FAL = Silky shark (*Carcharhinus falciformis*), SPL = Scalloped hammerhead shark (*Sphyrna lewini*), RHN = whale shark (*Rhincodon typus*), OCS = Oceanic whitetip shark (*C. longimanus*). BRD = Bycatch Reduction Device, BHRP = Best Handling and Release Practices.

Region	Flag	Species	Sample size	Release practices used / BRDs	Post-release mortality rate	Citation	Key Conclusions
IO	FRN	FAL	221 sharks, 48 sets, 31 trips, 31 tags	Release practices: manual release 3 BRDs used in study: Hopper	Total mortality = 81% Mortality by fishing stage: Entangled in the net = 18% mortality, landed via brailing = 85% mortality.	Poisson et al. 2014	Used satellite tags to assess survival rates in sharks that were entangled and sharks that were brought on board via the brail. Mortality was significantly higher for sharks that were removed from the lower well decks than those that were sorted and removed from the hopper (on working deck). It also showed high PRS for entangled animals and emphasized the importance of best handling practices.
WCPO	US	FAL	295 sharks, 31 sets, 1 trip, 26 tags, blood chemistry	Release practices: manual release 87 BRDs used in study: Hopper	Total mortality = 84%. Mortality by fishing stage: released while free swimming = 0% mortality, entangled in net = 31.6% mortality, sharks on top of the sack (i.e., first 3 brails = 83.3 % mortality, sharks from later brails or bottom of sack = 93.3% mortality.	Hutchinson et al. 2015	Used both blood chemistry and satellite tags to validate fate for mortality prediction by release condition and landing stage. Found a large proportion of sharks are brought on board in the last few brails (75%). Study also showed no relationship between set size (tonnage) and shark mortality rates. Indicating injuries that led to mortality occurred once they'd been confined in the sack. To reduce mortality, avoidance or removing sharks from the net while they are still free swimming will be most effective.

Shark BHRP Guidelines: Purse Seine

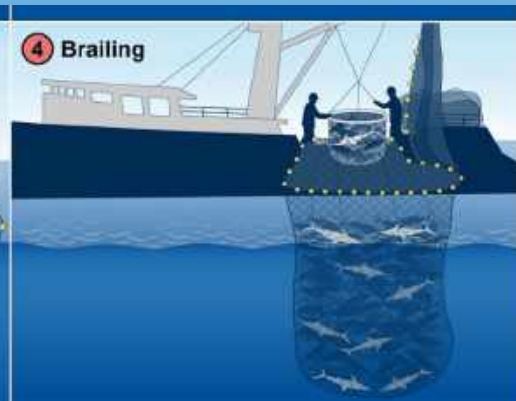
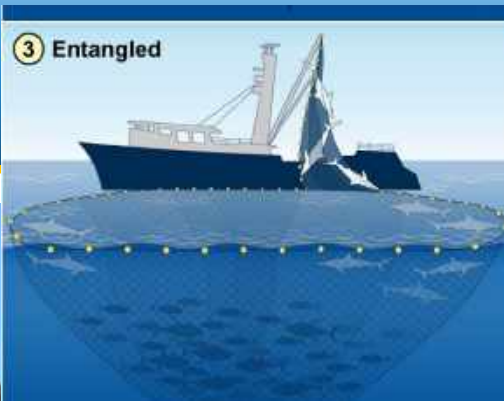
- Recommendations are specific to fishing stage, vessel configuration, BRDs
- Tools:
 - I. Bycatch sorting/releasing devices for working/main deck (e.g., hopper with a door, ramp)
 - II. Stretcher/cradle



into wells (bycatch removed)



Purse seine stages



Shark BHRP Guidelines: Purse Seine (Entangled sharks)

Do:

- Drop the net to the deck and allow the crew to safely cut the net away from the animal.
- Maneuver the animal into a stretcher/cradle or ramp immediately and release it on the opposite side of the vessel.
- Use a stretcher or cradle to ensure the safety of the crew and the animal

Do not:

- Roll sharks and or any bycatch species with mandatory release requirements through the power block.
- Leave sharks on deck. Ensure that they are released immediately.

Adopted language 11(a): when seen entangled in the net, disentangle the sharks and release them into the ocean as soon as possible.



Shark BHRP Guidelines: Purse Seine (Brailed sharks)

Adopted language 11(b): sharks brailed on deck must be returned to the water as soon as possible, either utilizing a ramp from the deck connecting to an opening on the side of the vessel, or through escape hatches. If ramps or escape hatches are not available, the sharks must be lowered with a sling or cargo net, using a crane or similar equipment, or as indicated in Annex 3 or any future revisions, as identified pursuant to paragraph 12.



Shark BHRP Guidelines: Purse Seine (Brailed sharks)

Do:

For sharks that are on top of the sack:

- When sharks are visible on top of the sack, the vessel should conduct a 'skimming scoop' to move as many sharks as possible from the sack to the sea (if possible) or the main deck for immediate release.

When brailing sharks on board:

- Utilize bycatch sorting devices (e.g., **hoppers**) to ensure sharks are sorted on the main deck and do not go down the loading hatch.
- Maneuver sharks into a stretcher/cradle or ramp immediately and release it on the opposite side of the vessel.
- Vessels should install a bycatch/waste chute on the lower decks to facilitate faster and safer release of sharks that were not sorted on the main/working deck.



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- Vessels should install a bycatch/waste chute on the lower decks to facilitate faster and safer release of sharks that were not sorted on the main/working deck.
- Use a stretcher/cradle or ramp to ensure the safety of the crew and the animal.

Do not:

- Leave sharks on deck. Ensure that they are released immediately.
- Use gaffs, hooks, or similar instruments to punch holes or drag sharks.
- No shark may be lifted by the head, tail, gill slits, or spiracles, or by using bind wire against or inserted through the body, and no holes may be punched through the bodies of sharks (e.g., to pass a cable through for lifting the shark).



Whale shark BHRP Guidelines: Purse Seine

Do:

- Leave whale sharks in the water for release.
- Prioritize release of whale sharks prior to brailing.
- If the whale shark is at the side of the vessel and its head pointed towards the stern of the boat, a crewmember can cut a few meters of net in front of the shark's mouth to release it.
- If the head of the whale shark is pointed towards the bow of the boat, the crew in charge of the net hauling operation can maneuver the winch and the capstan to bring the whale shark close to the hull, then stand the animal on the net and to roll it outside the bunt.
- A rope placed under the animal and attached to the float line could help to roll the whale shark out of the net.

Do not:

- Land or bring a whale shark on board the purse seine vessel regardless of size.
- Pull or tow a whale shark by the tail.



Shark BHRP Requirements (Resolution C-23-07): Longline

11. All sharks (alive or dead) that are not retained must be promptly released unharmed, to the extent practicable, as soon as they are seen on the line, entangled in the net or brailled on the deck, taking due consideration of the safety of any persons using the following procedures:

For longline vessels:

f. leave the shark in the water, where possible.

g. use a line cutter to cut the branchline as close to the hook as possible, and so that less than 1 meter remains on the animal, to the extent practicable.

11. Todos los tiburones (vivos o muertos) que no sean retenidos deben ser liberados con prontitud e ilesos, al grado factible, tan pronto sean observados en la línea enredados en la red o salabardos en la cubierta, teniendo debidamente en cuenta la seguridad de cualquier persona usando los siguientes procedimientos:

Para los buques palangreros:

f. Dejar al tiburón en el agua, siempre que sea posible.

g. Utilizar un cortador de línea para cortar la brazolada lo más cerca posible del anzuelo y de forma que quede menos de 1 metro de línea en el animal, en la medida de lo posible.

Longline: Literature & Data Review (SAC-15-11 Table 2)

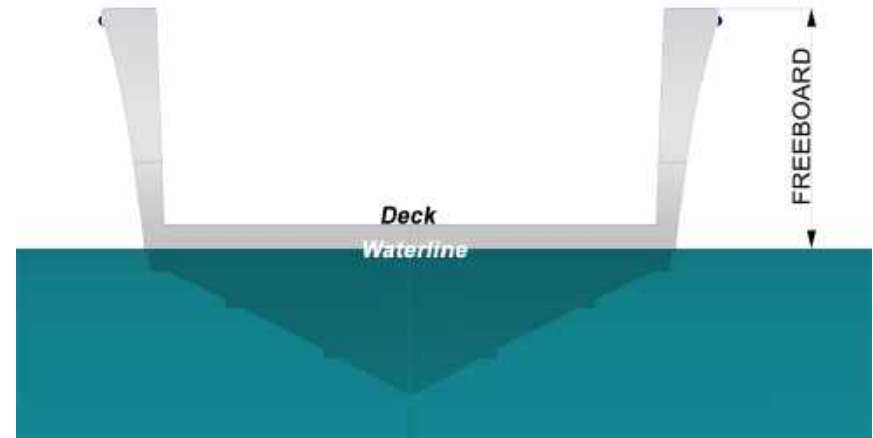
- 10 studies
- Indian Ocean, Pacific Ocean (WCPO & EPO), Western Atlantic Ocean
- Survivorship is compromised if brought on board
- Survivorship is compromised when released with trailing gear

TABLE 2. Shark post release survival studies conducted in commercial longline fisheries (modified from EB-01-01 Table 2d). Regions: NWA = Northwest Atlantic Ocean, EPO = Eastern Pacific Ocean, IO = Indian Ocean, AS = American Samoa, CPO = Central Pacific Ocean. Species are listed by 3-alpha IAC codes: BSH = Bala shark, SMA = shortfin mako shark, POR = porbeagle shark, FAL = silky shark, OCS = oceanic whitetip shark, BTH = bigeye thresher shark. Notes contain the estimated PRS rates and influential factors in each study. Where possible we used the data reported to 30 days (tag deployment period) which should comprise 90% of mortalities that are directly due to the fishery interaction in pelagic sharks (Musyl and Gilman 2018).

Region	Flag	Species	Sample size	Handling practices	Target gear configuration	Species/leader material	Post-release mortality rate	Citation	Key Conclusions
NWA	Canada, 71 trips, 513 sets	BSH	80	Some sharks were hauled on deck for tagging and gear removal	Swordfish, circle hooks, leader material reported	50% circle hooks, 45% leader not	19%	Campana et al. 2009	All surviving sharks exhibited recovery behavior for 2 to 7 d after release. All healthy sharks survived, while 33% of injured or gut hooked died. Overall BSH bycatch mortality was 35%, estimated discard mortality for sharks that were released alive was 19%. 95% of the mortality occurred within 11 d of release. Hook type (circle hooks vs J hooks) influential on at vessel condition.
NWA	Canada, 76 trips, 496 sets	BSH	37	Some sharks were hauled on deck for tagging and gear removal	Tuna & swordfish, 85% circle hooks, leader material reported	12% J hooks, leader not	24%	Campana et al. 2016	AVM ranged from 15 to 44%. POR and SMA had higher mortality than BSH. PRM rate of all three species different with condition at release. BSH & POR tagged on deck, some SMA tagged in water as difference in survival for tagging location for SMA
		SMA	26				30.8%		
		POR	11				18.2%		
S. Pacific	Falau, 13 trips, 1 set	FAL	35	Sharks were hauled on deck for tagging and gear removal	Tuna, circle hooks, bait, leader material not reported		20%	Musyl & Gilman 2018	Mean PRM rates were 0.17 [95% CI 0.09-0.30] for BSH and 0.20 [95% CI 0.10-0.36] for FAL. 87% of mortalities occurred within 2 days of release. PRM rate was 31% (12-59) for injured sharks (n = 13) & 11% (04-27) for healthy sharks (n = 35). Random sample, animals brought onboard for tagging were gaffed. Released with trailing gear (3-2 m). Close

Shark BHRP Guidelines: Longline

- Recommendations are by vessel freeboard
- Freeboard = the distance between the waterline and the main deck of a ship and the waterline to the rail of a small boat.



Shark BHRP Guidelines: Longline > 2m freeboard

Do:

- Slow the vessel to bring the shark in
- Leave sharks in the water for gear removal.
- Use long handled de-hookers if attempting to remove hooks.
- Use long handled line cutters to cut the line as close to the hook (or mouth) as possible, leaving no more than 1 meter of gear attached and ensuring that weights are removed.

Tools:

- Long-handled de-hooker
- Long-handled line cutter



Shark BHRP Guidelines: Longline < 2m freeboard

Do:

- Slow the vessel to bring the sharks in.
- Leave sharks in the water and remove gear.
- If animals are brought on board for gear removal use a dip net or lasso to help lift them onboard.
- If animals are brought on board for gear removal use a stretcher or cradle to improve safety of the crew and to reduce injury to the animal.
- If animals are brought on board for gear removal, sharks should be maneuvered using manual restraint of the pectoral fins and the caudal peduncle (this may require two crew members depending on the size of the animal).
- Return the animals to the sea as quickly as possible .

Tools:

- Dipnet
- Short handled de-hooker
- Pliers
- Line cutter
- Long-handled de-hooker
- Long-handled line cutter
- Stretcher/cradle



Shark BHRP Guidelines: Longline (all vessels)

Do not:

- Use drag lines or drag sharks behind the vessel until the hook rips free of the jaw.
- Use gaffs for lifting or maneuvering sharks.
- Lift and drop sharks from the vessel height to rip the hook from the shark's jaw.
- Lift sharks onto the deck without the use of a dipnet and or second point of attachment to support the weight of the animal.
- Lift or maneuver sharks by the gill slits, or spiracles.
- Attempt to remove a hook if it is not visible.
- Cut into the jaw for removal of the hook.

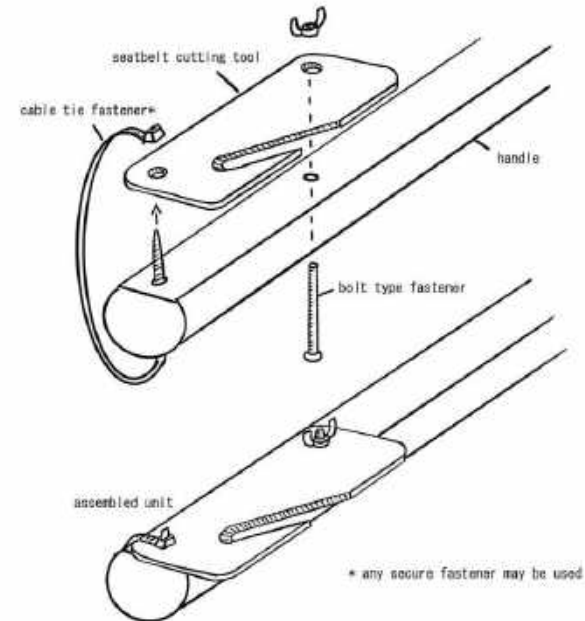


Annex 2. Example Specifications for select Recommended Tools

Long-handled line cutter

The minimum design standards are as follows:

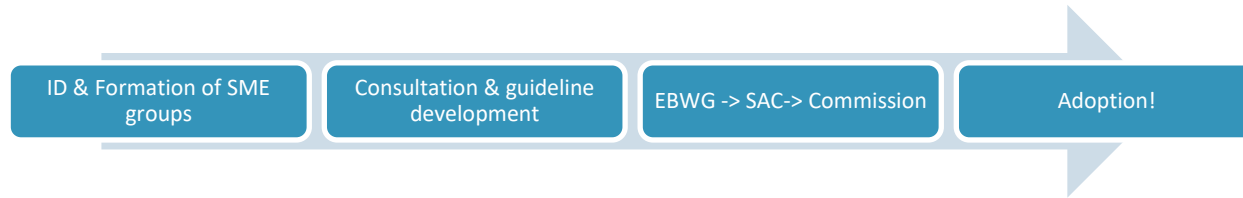
1. A protected cutting blade. The cutting blade must be curved, recessed, contained in a holder, or otherwise afforded some protection to minimize direct contact of the cutting surface with animals or users of the cutting blade.
2. Cutting blade edge. The blade must be capable of cutting 2.0-2.1 mm monofilament line and nylon or polypropylene multi-strand material commonly known as braided mainline or tarred mainline.
3. An extended reach holder for the cutting blade. The line clipper must have an extended reach handle or pole of at least 6 ft (1.82 m).
4. Secure fastener. The cutting blade must be securely fastened to the extended reach handle or pole to ensure effective deployment and use.



Tool Recommendations



Next steps: Development of training/outreach materials



Phase	Activities	2025				2026				2027				2028			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4) Development of BHRP training materials	Sharks	Shark															
	Seabird	Seabird															
	Rays	Rays															
	Sea turtles									Sea turtles							
	Marine Mammals									Marine Mammals							

- Infographics
- Training materials (powerpoints, videos, handouts)
- Participate in / co-organize training workshops
- Produce placards/posters for vessels



Preguntas – Questions?



Resolution C-23-07

BYCATCH AND RELEASE

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- b. sharks brailled on deck must be returned to the water as soon as possible, either utilizing a ramp from the deck connecting to an opening on the side of the vessel, or through escape hatches. If ramps or escape hatches are not available, the sharks must be lowered with a sling or cargo net, using a crane or similar equipment, or as indicated in Annex 3 or any future revisions, as identified pursuant to paragraph 12.
- c. prohibit the use of gaffs, hooks, or similar instruments for the handling of sharks.
- d. prohibit the lifting of sharks by the head, tail, gill slits, or spiracles, or by using bind wire against or inserted through the body. Prohibit the punching of holes through the bodies of sharks (e.g., to pass a cable through for lifting the shark).
- e. prohibit the lifting of whale sharks (*Rhincodon typus*) onboard the vessel and prohibit the towing of whale sharks out of a purse-seine net, e.g., using towing ropes.

For longline vessels:

- f. leave the shark in the water, where possible.
 - g. use a line cutter to cut the branchline as close to the hook as possible, and so that less than 1 meter remains on the animal, to the extent practicable.
12. The IATTC scientific staff, in collaboration with the IATTC SAC and EBWG, shall develop and recommend to the Commission a set of best handling guidelines for the safe release of sharks for inclusion in this measure in 2024. In the meantime, CPCs may elect to, as appropriate, use the safe handling and release guidelines for purse seine vessels described in Annex 3.

Voluntary Guidelines on live sharks Safe handling and release practices specific to purse-seine fisheries:

When enforcing the provisions of this measure in the purse seine fisheries:

1. Bear in mind that the primary aim of release processes is to ensure the highest level of survival of sharks.
2. Whenever possible, prompt and effective action will be taken to return the shark to the sea, provided there is no risk to crew safety.
3. If, for any reason, one or more shark individuals have unintentionally or unavoidably retained and it has not been possible to identify them previously or remove them from the wells, make a note of this incident in the records of interaction with non-target species, stating when the individual or individuals were identified, and surrender them to the port authority. Keep in mind that any attempt to trade these species constitutes a serious violation.
4. Endeavor to release them in the shortest possible time. Recommended practice is to remove the shark from the brailer, hopper or chute by taking it by the caudal peduncle to place it on deck. This should be done manually whenever possible.
5. when seen entangled in the net, disentangle sharks and release them into the ocean as soon as possible.
6. Sharks brailled on deck must be returned to the water as soon as possible, either utilizing a ramp from the deck connecting to an opening on the side of the vessel, or through escape hatches. If ramps or escape hatches are not available, the sharks must be lowered with a sling or cargo net, using a crane or similar equipment, or as indicated in Annex 3 or any future revisions as identified pursuant to paragraph 12.
7. It is prohibited to hold the shark by its head, tail, gill slits or spiracles.
8. It is prohibited to use bind wire against or inserted through the body, and no holes may be punched through the bodies of sharks (e.g., to pass a cable through for lifting the shark).
9. Avoid lifting them up in the net toward the power block.
10. Do not cut the tail or any other body part.
11. Do not cut or punch holes in the shark.
12. Do not hit or kick a shark.
13. Do not insert hands into the gill slits.
14. Do not expose the shark to the sun for extended periods.
15. Prohibitions contained in 5), 8), 9), 10) and 11), are allowed as appropriate, exclusively under urgent circumstances due to force majeure when safety of the crew is compromised. Crew members shall endeavor to avoid hazards in the safe handling and release operations for sharks. Any such events shall be recorded and reported to the corresponding flag state.

INTER-AMERICAN TROPICAL TUNA COMMISSION

90TH MEETING

La Jolla, California (USA)
27 June-1 July 2016

RESOLUTION C-16-05

RESOLUTION ON THE MANAGEMENT OF SHARK SPECIES

3. CPCs shall require purse-seine vessels flying their flag to follow safe release requirements for all sharks, except those retained aboard the vessel. Any shark (whether alive or dead) caught in the Convention Area that is not retained must be promptly released unharmed, to the extent practicable, as soon as it is seen in the net or on the deck, without compromising the safety of any persons. If a shark is alive when caught and is not retained, the shark must be released by using the following procedures, or equally effective means:
 - a. Sharks must be released out of the net by directly releasing them from the brailer into the ocean. Sharks that cannot be released without compromising the safety of persons or the sharks before being landed on deck must be returned to the water as soon as possible, either utilizing a ramp from the deck connecting to an opening on the side of the vessel, or through escape hatches. If ramps or escape hatches are not available, the sharks must be lowered with a sling or cargo net, using a crane or similar equipment, if available.
 - b. The use of gaffs, hooks, or similar instruments is prohibited for the handling of sharks. No shark may be lifted by the head, tail, gill slits, or spiracles, or by using bind wire against or inserted through the body, and no holes may be punched through the bodies of sharks (e.g., to pass a cable through for lifting the shark).
 - c. No whale shark (*Rhincodon typus*) may be towed out of a purse-seine net, e.g., using towing ropes.
4. CPCs shall prohibit longline vessels flying their flag and targeting tuna or swordfish in the Convention Area from using “shark lines” (individual lines attached to the floatline or to the floats directly, and used to target sharks; Figure 1).

COMMISSION
TWELFTH REGULAR SESSION
Bali, Indonesia
3-8 December 2015

GUIDELINES FOR THE SAFE RELEASE OF ENCIRCLED WHALE SHARKS¹

General principles

- Safety of the crew is a paramount consideration.
- When releasing encircled whale sharks, the stress the animal receives should be minimized to the extent possible.
- The following possible release methods should be used as general guidelines.
- The effectiveness of the following possible release methods has not been fully evaluated. Further scientific research is necessary in order to investigate survival after the release by various release methods. Therefore, CCMs are encouraged to conduct analysis on methods used by their purse seine vessels. In addition, several agencies have initiated a program of satellite tag deployments by experienced observers to assess survival of encircled animals associated with various release techniques.
- The appropriate release method should be chosen in a flexible manner depending on the circumstances and condition of the particular purse seine set, e.g. the size and orientation of the encircled animal, amount of fish in the purse seine set, weather conditions and brailing operation style.

As noted in the TCC9 Summary Report, Para 318, the PNA requires that when a whale shark is encountered in a purse seine net in PNA waters the net roll must be immediately stopped and the whale shark released.

In the WCPFC Convention Area the following actions are not recommended when releasing encircled whale sharks (see WCPFC-SC11-2015/EB-WP-03 Rev.1):

- Vertically lifting sharks by tail
- Pulling sharks by a loop hooked around its gill or holes bored into a fin
- Gaffing
- Leaving attached any towing ropes
- Brailing whale sharks larger than 2 meters
- Brailing whale sharks onto the deck
