BACKGROUND

The Pacific population of Basking Shark (*Cetorhinus maximus*) is listed as "Endangered" under the *Species at Risk Act*. It is therefore prohibited to kill, harm, harass, capture, take, possess, collect, buy, sell or trade any individual or any part or derivative of a Basking Shark.

The Basking Shark can be recognized by its extremely large size (up to 12.2 m or 40 feet), long gill slits, large mouth and extremely small teeth (**Figure 1**). They are filter-feeders, feeding primarily on zooplankton. Basking Sharks occurring in Canadian Pacific waters are considered to be part of a single population which migrates into British Columbia in spring and summer, and winters off the coast of California. Historically, Basking Sharks occurred throughout British Columbia waters and were regularly present in large numbers in Clayoquot Sound, Barkley Sound and Rivers Inlet.

The primary threats identified for this species include entanglement in commercial fishing gear, collision with vessels, and harassment from marine based activities. To ensure compliance with the *Species at Risk Act*, commercial fishing licences have been amended to include a **Condition of Licence for Species at Risk**, which specifies measures that must be taken to mitigate the threats to Basking Shark.

The following Codes of Conduct for Basking Shark encounters have been developed in support of the *Species at Risk Act* Recovery Strategy for Basking Sharks. **Part 1** introduces recommended boating practices for recreational boaters, ecotourism operators, and commercial and recreational fishers, to reduce mortality and harm during visual encounters. **Part 2** provides recommended handling practices to increase the chances of survival of Basking Sharks during incidental entanglements. **Part 3** provides details for reporting encounters to the Basking Shark Sightings Network.

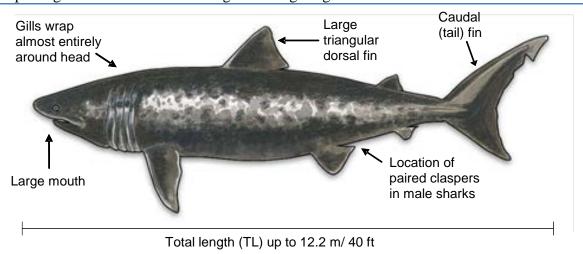


Figure 1. Diagram of a Basking Shark (*Cetorhinus maximus*), showing the main distinguishing features and the location of the claspers (in male sharks). Total length is measured as a straight-line distance from the tip of the snout to the tip of the upper lobe of the caudal (tail) fin. Maximum total length is approximately 12.2 meters (40 feet). Illustration by Jennifer Stone.

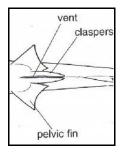


Figure 2. Diagram of the ventral side of a shark, showing the location of the paired claspers (reproductive organs) in male sharks.

PART 1: BOAT HANDLING PROCEDURES DURING VISUAL ENCOUNTERS WITH BASKING SHARKS

Basking Sharks occur in inlets, bays, and other highly productive areas, where they can be seen at the surface feeding on plankton. When a Basking Shark, or a group of Basking Sharks, is sighted from a vessel, follow the steps outlined below to reduce the likelihood of harm to the shark(s) and marine users.

- 1) Be **cautious** and **courteous**. Approach areas of known or suspected Basking Shark activity (i.e. inlets, bays, areas of high plankton abundance) with extreme caution. Look in all directions before planning your approach or departure.
- 2) **Slow down**. Reduce your vessel speed to less than 5 knots when a Basking Shark is sighted and avoid abrupt course changes.
- 3) **Keep clear** of the Basking Shark's path. If sharks are approaching you, cautiously move out of the way.
- 4) **Do NOT approach** a Basking Shark from the front or from behind. Always approach and depart a shark from the side, moving in a direction parallel to the direction of the sharks. If a Basking Shark is sighted, avoid positioning your vessel closer than **100 metres** to the shark.
- 5) If the Basking Shark approaches your vessel to within **10 m**, or is spotted within **10 m** of your vessel, switch the engine to neutral to avoid injuring the shark.
- 6) **Limit** your viewing time to minimize the impact.
- 7) **Do NOT swim** with, touch or feed Basking Sharks.
- 8) **Provide maximum distance** (e.g. 100m) when setting or hauling gear. The conditions of license for commercial fisheries require that fishing gear is not hauled or set when a Basking Shark is within **10 m** of the vessel, and/or is visible at the water's surface. However, in general practice, it is recommended that much greater distance (e.g. **100 m**) be provided to the sharks.
- 9) Notify Fisheries and Oceans Canada of the encounter through the **Basking Shark Sightings Network** (see Part 3 below).

PART 2: BEST PRACTICES FOR HANDLING BASKING SHARKS DURING ENTANGLEMENT ENCOUNTERS

IMPORTANT NOTES

Use Extreme Caution	Disentangling a Basking Shark from fishing gear requires extreme caution given their extremely large size (12.2m/ 40 ft).
Be Prepared	Always have gear such as sharp knives, needle nosed pliers, wire cutters and bolt cutters onboard and at the ready to facilitate disentangling a Basking Shark.
Assess the Situation	Remain calm. Safety comes first. Under NO circumstances should you enter the water. Do not attempt to bring a Basking Shark onboard a vessel (unless it is unavoidable, as with trawl gear). Use common sense and extreme caution.
Take Action	Time is a vital factor. Minimizing capture and handling times will decrease the chances of injury, and increase the likelihood of post-release survival (i.e. limit air exposure to 3-5 minutes if the Basking Shark is completely removed from the water; any longer and the gills may become damaged). For all entanglement encounters, document and report any visible wounds and the Basking Shark's swimming ability post-release (e.g. active with a strong tail thrust, slow glide with some fin movement, no fin movement and shark inverted).

In the event of an incidental entanglement, every effort should be made to release a live Basking Shark with minimal injury and minimal gear remaining in or on the shark, while ensuring crew safety. The following steps will aid in preventing injury to the Basking Shark and to marine users, and may provide opportunity for trained, certified persons (under a *Species at Risk Act* permit) to collect useful information for fisheries science and management.

1) Assess the life state (alive versus dead) and condition (good versus poor) of the Basking Shark. Proceed accordingly, and with extreme caution. Always avoid the strong caudal (tail) fin, which can cause injury by thrashing.

Alive in good condition (e.g. active swimming, minimal wounds) or poor (e.g. sluggish, visibly wounded) condition

- Attempt to disentangle the shark as quickly as possible, and in a manner that causes the least amount of harm to the animal.
- The proper handling and release procedures for an entangled Basking Shark depend on the type of gear in which the shark is entangled.
- Specific steps to take are listed below by gear type
- a) Entangled in **fishing line** (such as long-line, trap, or troll lines).
 - Maneuver your boat as close to the Basking Shark as possible without causing further injury or entanglement. Turn off your engine (if possible) or switch it into neutral.
 - Grapple the line, and bring the Basking Shark as close to the side of the boat as possible.
 - Pull the line to restrict the Basking Shark's movement. Hold the Basking Shark firmly against the side of the boat, preventing it from thrashing further. Avoid the use of restraining devices such as straps, tail ropes, gaffs, etc. Do NOT hold the shark by its gills. This may cause serious injury.
 - Try to unwind the line without cutting it. If you cannot untangle the line from the Basking Shark without cutting it, use a gaff to pull the line away from the shark before cutting the line free ¹.
- b) Entangled in a **fishing net** (such as a seine, gillnet, or aquaculture net).
 - Maneuver your boat as close to the Basking Shark as possible without causing further injury or entanglement. Turn off your engine (if possible) or switch it into neutral.
 - Bring the Basking Shark as close to the side of the boat as possible. Avoid the use
 of restraining devices such as straps, tail ropes, gaffs, etc. Do NOT hold the
 Basking Shark by its gills. This may cause serious injury.
 - Attempt to free the Basking Shark. This will be much easier with long bolt cutters onboard. Use a gaff to pull the net as far as possible from the points of contact with the Basking Shark, and carefully cut the net. It will likely take many cuts before the Basking Shark will be able to swim free.

¹ Do NOT use knives, screwdrivers, or sharp-nosed wire cutters or pliers to remove a hook. These will likely cause further damage to the shark.

- c) Entangled in a **trawl net** (and brought on-board the vessel).
 - Do not attempt to move the Basking Shark by the tail as this can result in injury to the shark's vertebrae. Make an attempt to support the weight of the Basking Shark by at least two points when moving it. For example, to facilitate transport, place the Basking Shark on a tarp.
 - Attempt to free the Basking Shark. This will be much easier with long bolt cutters onboard. Use a gaff to pull the net as far as possible from the points of contact with the Basking Shark, and carefully cut the net. It will likely take many cuts before the Basking Shark will be free of the net.
 - Once freed of the net, release the Basking Shark down the stern ramp (using a tarp for on-deck transport).

Dead

- Basking Sharks cannot be retained and must be disentangled from the fishing gear and discarded at-sea.
- Persons permitted by a Species at Risk Act license may collect biosamples for further analysis.
- 2) **Document** all entanglement encounters.
 - Commercial fishers are required report all encounters with Basking Sharks in the fishing logbook. If DFO staff or a certified observer is on board the vessel, inform them immediately of the encounter. They will assess whether biological samples can be safely taken and may attempt to take biological samples from the Basking Shark. Please note that only DFO staff or certified observers are permitted (Species at Risk Act scientific research permit) to take biological samples; do not attempt to take samples without proper permits
- 3) **Notify** Fisheries and Oceans Canada of the encounter through the <u>Basking Shark Sightings Network</u> (see Part 3 below).

PART 3: BASKING SHARK SIGHTINGS NETWORK

Fisheries and Oceans Canada encourages all who work or play on or near the water to keep a lookout for Basking Sharks and to report all sightings and other encounters as soon as possible through the Basking Shark Sightings Network. This information will help to rebuild the Basking Shark population off the west coast of British Columbia. To report a Basking Shark encounter, please use our online form or contact the Basking Shark Sightings Network directly at:

BASKING SHARK SIGHTINGS

Pacific Biological Station 3190 Hammond Bay Road Nanaimo, BC V9T 1T3

Web: www.pac.dfo-mpo.gc.ca/SharkSightings

E-mail: BaskingShark@dfo-mpo.gc.ca

Toll free: 1-877-50-SHARK

Please include the following details in your report:

- Photograph or video (if possible)
- Date of encounter and time of day
- Location (as specific as possible, such as positional GPS data)
- **Details** (e.g. number of sharks, estimated total length, sex, estimated height of the dorsal fin(s), distinguishing features)
- Any **behaviours**, visible wounds, and swimming ability post-release

Your **name** and **contact information** (to confirm the sighting)

DISCLAIMER

Although every effort has been made to prepare these instructions in a manner that takes into account the safety of the fish harvesters, the circumstances surrounding any disentanglement or de-hooking operation are variable. Thus, harvesters are encouraged to vary these instructions so as to take into account the factors present during any disentanglement or de-hooking operation, including (but not limited to) weather conditions, sea conditions, and the size of the vessel. The Government of Canada, the federal Minister of Fisheries and Oceans, and/or any of their employees shall not be liable for any loss or damages suffered as a result of any reliance upon the information contained this document.