

## SUMMARY ON BEST PRACTICES GUIDANCE FOR THE SAFE HANDLING AND RELEASE OF CETACEANS

### International Whaling Commission & Convention on Migratory Species

#### Abstract

In response to IOTC's Resolution 23/06 on cetacean conservation, this document summarizes the best practice guidance for the safe handling and release of small cetaceans accidentally bycaught in fishing gear. The document includes summaries on the rationale and instructions for best practice for handling and releasing bycaught small cetaceans that are brought along-side longlines, purse seiners and gillnet vessels, as well as for those bycaught animals that are accidentally or intentionally brought aboard, respectively. Thus, it provides a summary of generic advice which may apply and then can be further adapted to each individual fleet of the IOTC.

#### Background

IOTC's Resolution 23/06 on cetacean conservation includes a call for the IOTC-SC to provide advice on appropriate measures for mitigating the effects of interactions with cetaceans by IOTC fisheries, as well as to develop best practice guidelines for the safe release and handling of bycaught cetaceans by 2025. At the WPEB20, the document IOTC-2024-WPEB20(AS)-38 referring to the 'Best practice guidance for the safe handling and release of small cetaceans accidentally bycaught in fishing gear' (Hamer & Minton 2020), was presented by the International Whaling Commission (IWC). The WPEB noted that while the guidelines provide generic advice applicable to handling and live release of bycaught cetaceans in different fishing gears, they have not yet been adapted to the specific characteristics of the IOTC fisheries. Therefore, the WPEB suggested that the guidelines presented by the IWC are adapted to the specific needs of all IOTC fleets in the future. To move forward, the WPEB also agreed to work to provide a short summary of the measures that could apply to each individual fleet to be presented at the WPDCS, and which could then be considered for the inclusion in a Resolution on cetaceans.

This document presents the summary of best practice guidance for the safe handling and release of small cetaceans (all dolphins and porpoises) accidentally bycaught in fishing gear providing generic advice to IOTC fisheries. The guidelines, from which this summary was produced, have been reviewed by over 20 experts consulted by the International Whaling Commission (IWC), the Convention on Migratory Species (CMS- including its daughter agreements, ASCOBANS and ACCOBAMS), and have been endorsed by the IWC's Scientific Committee. Here we provide summary on the rationale and instructions for best practice for handling and releasing bycaught small cetaceans that are brought along-side longlines, purse seiners and gillnet vessels, respectively, as well as for those bycaught animals that are accidentally or intentionally brought aboard.

#### REFERENCES

Hamer, D. and Minton, G. (2020). Guidelines for the safe and humane handling and release of bycaught small cetaceans from fishing gear. UNEP/CMS Secretariat. Bonn, Germany 50 pages. *CMS Technical Series No. 43*.

## Guidelines for safely handling and releasing small cetaceans from a longline or drop line

**Equipment list:** Knives and pliers, Specialised cutters and poles.

1. In a longline or dropline vessel, the crew may be able to detect a bycaught small cetacean visually from up to 1 nautical mile away if bycaught during the day. Those bycaught at night are likely to be seen only when very close to the vessel or may be evident in the nature of the pull on the line and the direction it comes from, plus the exhalation sounds as the animal surfaces and breathes.
2. Once detected, the vessel should be moved towards the bycaught animal, rather than attempting to bring the animal towards the vessel by further hauling the gear.
3. Continued hauling may further embed the hook in the animal, which may further injure the lodgement site (which could be the lip, throat, or stomach).
4. The management of a small cetacean bycaught on a longline or dropline hook will depend on the size and configuration of the vessel, the height of the deck from the waterline, and the size and behaviour of the bycaught species.
5. Wherever possible, a bycaught small cetacean should be safely and humanely released in the water, before the fishing gear is brought aboard.
6. Crew members attempting to release an animal should never enter the water to avoid putting themselves at an unnecessarily high risk of injury and death (they could also become caught in the gear, be exposed to cold temperatures or get physically injured by the struggling bycaught animal).

### ***Do's:***

- Immediately inform the skipper when a bycaught small cetacean is detected.
- When detected, hauling of the line should cease immediately, it could cause more injury and stress to the animal.
- Make all attempts to manoeuvre the vessel towards the animal, preventing vessel roll by keeping the bow into the swell.
- Cut the line using an appropriate implement, as close as possible to the animal. If needed use a blade on an extended pole to reach the line and cut it.
- Only under exceptional circumstances should any attempt be made to remove the hook.

### ***Don'ts:***

- Do not continue to haul or pull on the line.
- Do not use any kind of hook to bring the animal closer, as this will further injure it.

<p><b>Safety Note:</b> DO NOT enter the water with the animal, as this will put crew members at unnecessary risk.</p>
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## Guidelines for safely handling and releasing small cetaceans from purse-seine nets

**Equipment list:** Cranes or boom winches, Binoculars, Radio.

1. In a purse-seiner, encircled small cetaceans are usually detected soon after the net has been pursed, early in the fishing operation. Typically, encircled animals initially swim back and forth inside the cork line, at the surface and at the furthest point from the vessel. When encircled, they almost never use their ability to jump over the water to escape, most likely due to their instinct to group together when under threat.
2. Efforts should be prioritised to remove the animals from the net as soon as possible. If delays occur, then the risk of stress-related 'passive behaviour' developing will increase, which is known to lead to death soon after.
3. Three methods are known to be in use that create an escape route for encircled small cetaceans:
  - a. Backdown. The vessel goes astern, so the corkline becomes elliptical and the most forward end is pulled below the surface, thus facilitating escape.
  - b. Dolphin gate. A prefabricated quick release rope detaches the corkline from the seine net, which sinks and creates an opening for escape.
  - c. Skiff pulling on a rope to cause a slack area in the cork line, which is then held down using a removable weight.

For all three methods, the placement of the skiff needs to be carefully considered, so its presence (i.e. the noise caused by the motor and the bubbles caused by propeller wash) does not deter the encircled dolphins from approaching the escape route.

4. It may also be useful to use the skiff to shepherd the animals towards the opening, although it should be moved slowly and carefully to avoid further stress and strike injuries.
5. Wherever possible, a bycaught small cetacean should be safely and humanely released in the water, before the fishing gear is brought aboard.

### **Do's:**

- Crew members, using high points such as the wheelhouse roof or a crow's nest, should be on the lookout for encircled small cetaceans during pursing operations (early in the fishing event).
- Removal operations should commence as soon as encircled animals are detected, to avoid 'passive' behaviour from developing, which is an indicator of imminent stress-related death.
- One of three release methods should be used (depending on their suitability to the vessel), utilising a combination of changed fishing practice and modified net (see above).
- The skiff should be used to maintain the shape of the net (and prevent net folds from forming) and to shepherd encircled animals towards the exit point, although slow and careful manoeuvring is required to avoid further stress and injury to the animals and to ensure the safety of the operator.
- During release, crew members should keep watch to ensure:
  - (i) the seine net remains open and net folds do not form,
  - (ii) all animals observed encircled are accounted for during the release operation, and
  - (iii) skiff operations remain safe for the operator and for the encircled animals.

## Guidelines for safely handling and releasing small cetaceans from gillnets

**Equipment list:** Knives and pliers, Specialised cutters (e.g. goose-beak cutter) and poles, Ropes.

1. In a gillnet, a small cetacean tangled is unlikely to be detected until hauling and until it is close to the vessel.
2. If the animal is detected alive in a demersal net, it likely only became bycaught during the haul; while if detected alive in a pelagic net, the animal may have been tangled for some time and was able to continue breathing at the surface.
3. When an animal is detected bycaught, hauling should be slowed to a minimum or cease and procedures should commence as soon as possible to facilitate its release.
4. Wherever possible, a bycaught small cetacean should be safely and humanely released in the water, before the fishing gear is brought aboard.
5. Crew members attempting to release an animal should never enter the water to avoid putting themselves at an unnecessarily high risk of injury and death (they could also become caught in the gear, be exposed to cold temperatures or get physically injured by the struggling bycaught animal).

### **Do's:**

- The crew member closest to the net roller, or in a position where the net can be seen ahead of the net roller (before it comes aboard), should be on the lookout for small cetaceans tangled in the gillnet during the haul.
- If one is detected, the skipper should be informed and release procedures should commence immediately.
- The portion of net in which the animal is bycaught should be brought alongside, by carefully manoeuvring the vessel.
- Securing ropes should be placed around the net, one in front of and one behind the animal, so it can be gently lifted just above the waterline, either using available cranes or winches, or by hand if the animal is sufficiently small and there are available tie off points.
- The net should be cut carefully along the axis of the animal, so it can then be rolled to facilitate its release and soft landing back into the water:
  - a) From a small vessel with a deck close to the waterline, a small cutting tool like a knife can be used,
  - b) From a larger vessel with a high deck, a specialised cutting implement on a long handle may be needed.
- If using the curved blade on an extension pole, take care not to injure the animal as the vessel is likely to roll in the swell.

<p><b>Safety Note:</b> DO NOT enter the water with the animal, as this will put crew members at unnecessary risk.</p>
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## Guidelines for safely handling and release of small cetaceans brought on board

**Equipment list:** Deck hoses and buckets, Flat straps and ropes, Soft mats, Knives and pliers, Cloth bags, sheets and towels, Cranes or boom winches, Animal stretcher.

1. Whenever possible, cetaceans should be released from gear while still in the water, as bringing them on board will cause additional stress and potential injury.
2. If a bycaught small cetacean may be brought onboard a fishing vessel, either accidentally (if not detected beforehand) or intentionally (if deemed safer for the animal or crew), the following handling procedures should be followed for releasing the animal as soon as practicable, regardless of its condition, in a way that does not further compromise its welfare, nor the safety of the crew.
3. Collectively, the vessel crew should all be trained and competent in the handling and release of small cetaceans. One person onboard ('incident manager') will be responsible for (i) managing the incident (i.e. animal that is brought aboard) and delegating tasks (to other crewmembers), (ii) rapidly assessing and prioritising, (iii) physically stabilising the animal and providing first aid, (iv) all decisions around the handling and release of the animal, and (v) recording all relevant details about the incident.

### ***How to safely bring the small cetacean (all dolphins and porpoises) aboard:***

- a) When an animal is lifted from the water, its full weight will come to bear on the lifting apparatus, which is likely to be a portion of the net. All care should be taken to ensure the animal is not twisted or caught in a way that stretches or twists its flippers or tail, or bends its jaw, in an unnatural manner, thus causing further injury or stress. To achieve its most natural posture, it may be necessary to gently lift the animal just above the waterline, then lower into the water again (and repeat a few times) to ensure the animal comes to rest in the best possible position for the lift.
- b) While lifting the animal, if available on the vessel with a crane or winch, perform all movements as carefully as possible, ensuring the animal does not collide with objects. If entangled in a net, a rope should be attached to the net as close as possible to the animal, so that greater control over its movements through the air can be achieved. A third person, usually the skipper, first mate or deck boss, should coordinate the move, providing instructions to the crane operator and the rope handler.
- c) Decide beforehand where the animal will be placed, taking into account that a quiet and out-of-the-way place is preferable, on a temperature-neutral surface and away from fumes. A soft mat and stabilising sandbags (or equivalent) should be in place, or on hand for use.

### ***Make a basic assessment about its condition:***

- d) The crew are not expected to provide more than basic first aid care to the bycaught animal:
  - determine the life state of the animal, to assess its health and the extent of obvious injuries,
  - keep the animal in a physically stable position,
  - cover with wet towels (although avoid covering the blowhole),
  - carefully and humanely remove net or embedded objects, stop bleeding by applying pressure over the wound site, and

- make sure the blowhole and mouth are free from obstructions.

***Hold it aboard for the shortest possible period:***

- e) It is almost always better to release the bycaught animal sooner, rather than later, to avoid stress that is physiological (caused by increased physical demands on breathing, impaired blood circulation and temperature regulation, and abrading surfaces) and psychological (caused by being in an unfamiliar environment, where there is excessive noise, light and movement, and discomfort caused by heat or cold, or abrading surfaces) in nature. Nonetheless, it may be necessary to hold the animal on board if it is unsafe to release it.
- f) It is best to place the animal in a temperature-neutral environment, where the deck surface and the air temperature are not dissimilar from the water that the animal came from, or will go back into. Excessively hot and cold surfaces should be avoided. The structure of the vessel and the use of dry towels may be useful as a barrier against cold winds or wet towels against heat and direct sunlight (remembering to avoid placing towels over the blowhole). Soft mats can be used to prevent injury from sharp edges on the deck, although may also be useful in insulating the animal from temperature differences and vibration.
- g) Excessive noise in the vicinity and powerful lights directed at the animal should be avoided. Damaged hearing and/or sight will put the animal at risk when released, as it will reduce the effectiveness of foraging and of avoiding predators or other threats.
- h) Sandbags and wet rolled towels (or sheets or netting material) should be used to stabilise the animal in the upright position. Placing them immediately behind the pectoral fins, at the widest point, will be most effective. Additional wet rolled towels can be used under the pectoral fin where it joints the body, to provide further support and to avoid joint injury if the vessel pitches or rolls.

***How to move and release it back to the water:***

- i) To move an animal, it will need to be placed on a stretcher (if available). Half roll up the stretcher along its long axis, once the pole on that side has been removed from the sleeve and placed in a safe location. With the assistance of others and under the instruction of the incident manager, partially and gently roll the animal away, so the half-rolled stretcher can be placed underneath. Move to the other side, then partially and gently roll the animal in the other direction, so the portion of rolled up stretcher can be unrolled. Replace the pole in the sleeve. Do not twist on or pull any of the appendages, as this may cause injury. Carefully assess, based on the species, if the dorsal fins should be tucked in and back before performing this task. If this is necessary, extra personnel will be needed to stabilise the animal.
- j) All crew members should follow the instructions of the incident manager, who will inform all involved how the animal will be lifted and where it will be lifted to. Although existing net or a tarpaulin can be used to make a makeshift stretcher, a purpose-built item will facilitate the most stable and safe lifts. Once the lift has been planned and is about to take place, the incident manager will inform the skipper and all affected crewmembers.

***GENERAL GUIDELINES FOR HANDLING SMALL CETACEANS (all dolphins and porpoises) WHILE ON BOARD:***

***Do's:***

- Stay clear of the tail fluke and rostrum to avoid injury to crew.
- Use props, such as sandbags or rolled towels placed on either side of the animal, to gently hold it upright and in a 'natural' position.
- Make all efforts to keep the animal in an upright position at all times, including when moving, or when returning to the water.
- Whenever possible, use lifting 'stretchers', which are safer for the animals and the crew.
- For animals being held aboard the vessel for extended periods (e.g. for more than 10 minutes):
  - wet towels should be carefully placed over the animal to ensure they are kept moist, using water collected from overboard that is of ambient temperature. This is particularly important to avoid hypo- or hyperthermia, and to prevent the particularly sensitive skin from windburn or sunburn;
  - regularly and gently drizzle small amounts of ambient temperature water over the face and eyes, but not into or near the blowhole, to maintain eye hydration and overall condition;
  - apply Vaseline around the exterior surface of the blowhole to maintain skin condition (using gloves), although this should be done carefully to ensure none comes into contact with the interior surfaces of the nasal passage.
- Although there is typically a lot of noise on or near fishing vessels, attempt to minimise noise as much as possible. The main engine may need to continue running for safety reasons, but if at all possible auxiliary engines should be shut down temporarily.
- Adopt an holistic approach to the care of a bycaught small cetacean at all times, especially when attempting to handle and release it, approaching the animal as if a small child or elderly person in need.
- Gentler, quieter and more thoughtful actions create a safer situation, for the small cetacean and for the crewmembers involved.
- If there is any doubt as to whether an animal is (freshly) dead or in an unresponsive state, it should be treated as live, with all the same care applied and the same motivation to handle the animal following these guidelines and to release it back into the water as soon as possible

***Don'ts:***

- Avoid pushing, pulling or twisting the animals' appendages including the rostrum, pectoral and dorsal fins and the fluke, as this may cause painful injuries that can decrease the chances of survival.
- Do not use the jaw of the animal to move or hold it, despite looking robust.
- Avoid placing your hands or feet inside the mouth as you can be easily injured.
- Do not cover or block the blowhole of the animal, or spray water in or near it, to allow uninterrupted breathing.
- Avoid using deck hoses if the water is partially heated as it travels through the pump in the engine room, so that temperature shock is prevented when the animal is released
- High pressure deck hoses should not be directed toward or near the eyes at any time.
- Avoid any kind of physical contact with the eyes of the animal, unless attempting to gently and carefully remove foreign bodies that are relatively superficial. Using water to 'flood-irrigate' the eyes is the best approach, although a clean cotton cloth may assist in removing small objects.
- Avoid placing the animal near sharp and abrasive objects, and on hot or cold surfaces.

- Avoid placing the animal downwind of exhaust fumes, where possible.
- The crew should avoid being downwind of the blowhole.
- Refrain from making sudden movements within view of a bycaught animal and from shining bright lights in their direction, as both may frighten the animal.
- Avoid dropping objects on the deck (as high intensity low pitch noises can be most damaging) and shouting if possible (oscillating noise is likely to cause confusion and added stress for the animal).