



Sharks |

Operational Procedures

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Part 1: Introduction

The following Operational Procedures (OPs) stipulate the management measures for the identification, handling and disposal of sharks as agreed by Deepwater Group Ltd (DWG) Shareholders and administered by DWG. Please note that any references to “sharks” within these OPs refer specifically to sharks in the narrower sense (not all species in the entire class of Chondrichthyes, which includes sharks, skates, rays and chimaeras, as referenced in the New Zealand National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks)).

Background and Rationale

There are global concerns over the management of sharks. Sharks require careful management due to their biological vulnerability (e.g. slow growth and low reproductive rates). New Zealand has a number of sharks listed as **Protected Species** and deepwater fisheries interact with some of these. New Zealand has a responsibility to ensure sustainable management and conservation of sharks and as such have specific management measures in place both within the QMS and other regulatory frameworks (e.g. Protected Species legislation). Guidance is given by the NPOA-Sharks.

Purpose of these Procedures

The purpose of these DWG Shark Operational Procedures (Shark OPs) is to support the NPOA-Sharks and provide a guide to Government requirements.

Objectives of these Procedures

The objectives of these Shark OPs are to:

- Ensure the safe, humane and proper handling of live and dead sharks, where appropriate
- Enable the proper collection and reporting of shark catch
- Support the NPOA-Sharks and reference relevant regulations.

Application of these Procedures

These OPs apply to all trawlers over 28 m and all other vessels targeting stocks represented by DWG.

Legislative and Regulatory Framework

Key legislation that underpins the management of sharks in NZ includes:

- **Fisheries Act 1996** requires:
 - All reported catch be recorded
 - All QMS-species be landed if taken, except where Schedule 6 applies and provides for their return to the sea (e.g. blue, mako, porbeagle, rig, schoolshark and spiny dogfish).
 - Shark Finning Ban
- **Wildlife Act 1953** states it is an offence to deliberately take, or attempt to take, any Protected Species listed in Schedule 7A.

Part 2: When Shark Captures Occur

The following outlines what to do when shark captures occur.

Protected Species

Sharks Protected Under the Wildlife Act

- Great white shark (white pointer shark)
- Basking shark
- Whale shark
- Oceanic whitetip
- Deepwater nurse shark.

Deepwater fishing in NZ occasionally captures basking sharks and very occasionally great white sharks.

What to do if a Protected Species Capture Occurs

- Use safe handling and release procedures to remove the shark from fishing gear (refer Safe Handling and Release Practices below).
- Always immediately return the whole and intact shark to the sea (unless a Ministry observer formally takes possession of the shark) and without removing any body part.
- At the bottom of the Catch and Effort reporting form tick the box that you have captured a Protected Species.
- Complete the *Non-Fish/Protected Species Catch Return* and use the correct species code (refer Ministry Reporting and the Law below):
 - Basking shark (BSK)
 - Great white shark (WPS).
- Promptly (within 24 hours) report basking shark captures to DWG as a trigger (see DWG reporting requirements in your Operational Procedures manual or email to admin@deepwatergroup.org).

Reporting of Protected Species and the Law

It is not illegal to accidentally capture a Protected Species but it is illegal to fail to report the capture.

Report all captures at the end of every voyage on the Ministry's Non-Fish/Protected Species Catch Return (NFPSCR) form (Appendix 2). This form must be returned to the Ministry along with the mandatory catch and effort reports (e.g. TCEPR or TCER).

The vessel master should also record the capture event in the vessel's log, including the following information:

- The position of any captures and return of any Protected Species to the sea (latitude and longitude)
 - The species name if known. (*Note: All care should be taken to correctly identify the species. If there is a camera on board, take a clear photograph of the head and of the whole body. Any photos should be kept in case there is follow up.*)
 - Whether the shark was dead or alive when returned to the sea.
-

Regulations regarding Return of QMS Sharks to the Sea (Schedule 6) and Finning of any sharks

Schedule 6: QMS Species which may be released

As a general rule, all QMS-species must be landed if taken. However, Schedule 6 provides for exceptions to this rule by listing QMS species which may be released and the conditions within which these releases may occur.

Sharks Listed Under Schedule 6

- Blue shark (BWS), Mako shark (MAK) and Porbeagle shark (POS) – may be returned alive or dead (and if dead balanced against ACE)
- Rig (SPO) – may be returned alive only
- School shark (SCH) – may be returned alive only
- Spiny dogfish (SPD) – may be returned alive or dead but must always be balanced against ACE regardless.

MPI Factsheets for Sharks

MPI have produced four factsheets regarding the new regulatory environment for sharks:

- Factsheet 1 – Conservation and management of New Zealand sharks – includes information on CITES requirements
- Factsheet 2 – Landing sharks with fins attached
- Factsheet 3 – Landing shark fins subject to a ratio
- Factsheet 4 – Schedule 6 provisions

These are appended at the back of this OP.

Finning

Finning (the removal of fins and disposal of the body to the sea) is prohibited by law and the use of the processed state FIN (or states of dry or wet fins) is no longer legal. Any fins landed will always be as a by-product state and with the associated trunk also landed. This applies to all QMS and non-QMS sharks.

Identification of Non-QMS Species

The Need for Better Identification

The NPOA-Sharks has noted the need for better identification of landed shark species, in particular non-QMS shark species.

It explains that many sharks are of low economic value compared to other species and therefore tend to be non-target and non-QMS species. This coupled with similar features for many of these sharks and the low encounter rate New Zealand fisherman have with them means crew have difficulty in accurately identifying such shark species when caught. They therefore tend to rely on using generic reporting codes.

While the reporting system is comprehensive, accurate information is important to its success and is dependent on the crews' ability to identify shark species. Crews must be competent to identify species that they are processing for landing.

MPI Identification Guide and Reporting Codes

To improve identification, MPI have released an updated and comprehensive fish identification guide for all fish species, including sharks.

This is a pictorial guide that includes images and key information to help crew distinguish species. It covers all QMS species, species that are commonly confused with QMS species and species common in bycatch.

It is important that your crew have access to this guide in order to better identify and report the full range of shark species they process, Protected Sharks and any other easily identifiable sharks they may catch

Refer to *Appendix 1* for examples of MPI's ID guide for key non-QMS shark species common in bycatch. However, please be aware this is a limited selection of shark species and you must fully utilise the Ministry's guide.

If your vessel requires a MPI Shark ID book, please contact DWG on 09 379 0556 or e-mail a request to admin@deepwatergroup.org.

Safe Handling and Release

Handling and Release Practices

Where the release of a shark is involved, crew safety is the first priority. However, it is important to remember that mortality of sharks can be reduced by releasing a shark as quickly as possible with a minimum of handling. The best practice policy is that minimal handling is safer for both crew and shark.

Exactly how a shark should be handled will depend on the size of the shark, how it is caught, and the size of the vessel.

Some general practices that should be followed (noting the point made above) are:

- Sharks are cartilaginous and their internal organs rely on water pressure for support. The lack of support from a bony rib-cage means dragging the animal over rigid objects (e.g. ship's rail) can cause lethal damage
- If necessary to bring the shark onboard, try to keep the shark on its side to prevent crushing internal organs. Where possible, also cover their eyes with a cloth soaked in seawater. This helps pacify them making it safer to release from the fishing gear and reduces risk of them biting or thrashing at crew
- Ensure crew stand well away from the side of the head where they could be seen by the shark. Even when close to death sharks are known to snap at objects it senses close to its mouth. Most sharks are flexible and can reach their own tails with their mouths (and therefore any person holding them)
- Once it is safe to do so, return the shark to the sea head first and right way up.

Longliners

- Where it is possible to do so and safely, release the shark while in the water
- If necessary to bring the shark aboard, support the shark holding it by the dorsal fin and tail (alternatively, pectoral fin) and, where possible, support the abdomen
- If the hook is swallowed, cut the snood as close to the hook as is safely possible
- If hooked in the mouth/jaw, either release in the water (with a hook remover or long-handled 'T' bar) or bring the shark onboard and remove the hook
- For smaller sharks, the use of a 'dip-net' to lift sharks aboard is preferred
- With larger sharks, a risk to crew is entanglement in the gear attached to the shark, where a shark could easily pull entangled crew overboard or gear could cause injury to fingers or limbs.

Basking Shark

To increase the shark's chances of survival and to promote crew safety:

- Return the shark to the sea as quickly as practicable and as safely as possible
- These are very large animals weighing many tonnes, crew have to be vigilant not to get between the animal and any other large fixed object where movement may trap them
- When the body of the animal is stationary on deck, the tail can flick so crew should be very careful whenever attaching strops
- Never use a wire strop, this will cut the tail from the animal
- Larger diameter rope-strops are best placed further up the tail away from the narrowest part near the tail-fin
- Two methods used successfully on vessels:
 - Use a very wide diameter rope strop (like Samson rope/strop etc) placed well up the tail to carefully drag animal first down the deck then when over the stern ramp remove the strop and refit open strop, (i.e. with no locking-turns) so once in the water the strop falls off
 - Using a very wide diameter rope strop (Samson rope/strop etc.) placed well up the tail carefully lift the tail up, then using a section of netting or old lengthener material a few metres long, tie this around the tail-shaft, then carefully drag the animal tail first down the stern ramp (this places the 'load' along a much longer area, decreasing the risk of cutting the tail with a strop).

Other Protected Shark Species

Unless instructed otherwise by a MPI observer, all captures must be returned to the sea (dead or alive) as soon as possible:

- If dead, you must not cut, remove or unnecessarily interfere with any part of the shark
- If alive, it is returned to the sea taking all reasonable care to prevent injury.

Convention on International Trade in Endangered Species (CITES) – Special documentation for export and trade of Porbeagle shark administered by DOC

Porbeagle sharks have been listed with CITES which means that specific documentation is required for export.

- This requirement also includes any fishmeal containing porbeagle shark.

Further information regarding these requirements is available from DOC at: <http://www.doc.govt.nz/Documents/about-doc/role/international/ties-application-form.pdf>

Appendix 1: Identification of Key Non-QMS Shark Species

The following outlines some commonly caught non-QMS and non-protected shark species and how to identify them when reporting fish catch.

Baxter's Dogfish (ETB)

Scientific Name: *Etmopterus baxteri*

Other Names: Giant lanternshark, New Zealand lanternshark, Southern lanternshark

Ministry Reporting Code: ETB

Distinguishing Features:

- Stout-bodied, uniformly dark and with randomly spaced dermal denticles giving a slight roughened skin
- Bases of first and second dorsal fins naked (no denticles)

Colour: Dark brown to blackish, belly darker. Darker but inconspicuous pelvic and caudal fin marks

Size: To about 80cm TL



Leafscale Gulper Shark (CSQ)

Scientific Name: *Centrophorus squamosus*

Other Names: N/A

Ministry Reporting Code: CSQ

Distinguishing Features:

- Moderate sized with a short snout
- Long low first dorsal fin and triangular second dorsal
- Strong fin spines
- Rough skin with leaf-shaped denticles
- Inner rear corner of pectoral fin angular or pointed (not rounded) but not elongated

Colour: Uniformly greyish-brown

Size: To about 160 cm TL



Seal Shark (BSH)

Scientific Name: *Dalatias licha*

Other Names: Black shark

Ministry Reporting Code: BSH

Distinguishing Features:

- Moderate-sized with a short blunt snout giving the head a “seal-like” appearance
- First dorsal fin rounded, second more pointed, slightly larger; both without fin spines
- Thick lips
- Teeth in lower jaw large, triangular, serrated

Colour: Uniformly dark grey-brown to black, occasionally lighter

Size: To about 160 cm TL



Shovelnose Dogfish (SND)

Scientific Name: *Deania calcea*

Other Names: Brier shark (Aus.)

Ministry Reporting Code: SND

Distinguishing Features:

- Slender-bodied with an elongated, flattened snout
- First dorsal fin is longer and lower than the second dorsal fin
- Skin is soft and patches are often lost on trawl-caught fish

Colour: Usually uniform mid grey-brown, but may be darker or lighter and slightly darker fins

Size: To about 120 cm TL



Appendix 2: Ministry Non-Fish / Protected Species Catch Return Form

Do **not** photocopy – use only as example

NPC 1234567

Non-fish / Protected Species Catch Return

- Complete **separate returns** for each fishing trip where non-fish / protected species incidental catch occurs.
- Non-fish / protected species include: corals, sponges, bryozoans, seabirds, marine mammals, marine reptiles and protected fish (see explanatory notes for a detailed list of species).
- Non-fish / Protected species incidental catch**
Complete a **separate row** for each non-fish / protected species caught in a fishing event.

Date tow / set began (dd/mm/yy)	Time tow / set began (24-hr clock)	Form number from catch effort return	Species code	Estimated weight of corals, sponges or bryozoans (kg)	Seabirds / Mammals / Reptiles / Protected fish		
					Number alive, uninjured	Number alive, injured	Number dead
/ /	:			0kg			
/ /	:			0kg			
/ /	:			0kg			
/ /	:			0kg			
/ /	:			0kg			
/ /	:			0kg			
/ /	:			0kg			
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Use additional pages if you run out of space to record non-fish / protected species incidental catch from this trip.

- Enter a cross in **one** of the circles to show the MFish catch effort form type used during the trip.
 TCEPR CELR LCER TLCER NCELR Other → If other, enter the form type used

5. Permit holder and vessel details

Name of permit holder <input style="width: 90%;" type="text"/> Client number of permit holder <input style="width: 100%;" type="text"/> Name of vessel <input style="width: 90%;" type="text"/> Registration number of vessel <input style="width: 100%;" type="text"/>	<p style="font-size: small;">I declare that the information I have given on this return is correct and complete, and that I have read and understood the explanatory notes supplied with this return.</p> Signature of permit holder or authorised person <input style="width: 90%;" type="text"/> Date signed <input style="width: 100px;" type="text"/> / <input style="width: 100px;" type="text"/> / 20
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Send completed returns to PO Box 297, Wellington 6140.