Purse Seine - Protected Species Risk Management Plan

FV (ID)		**Port**		**Date**	
Owner		**Skipper(s)**			

Purpose: This PSRMP documents agreed procedures and actions that skippers will follow to reduce risk of protected species captures and includes implementation of best practice Mitigation Standards. Skipper(s) and crew are also to read and understand the supporting Operational Procedures. Information in this plan will be provided to MPI and SNZ for reporting and management.

Regulations: Details of regulatory requirements can be found in Commercial Fishing Regulations. All protected species captures are reported using the electronic NFPS Catch Report.

Additional Resources

Vessel's Practices – Health and Safety of crew comes first	
Prior to setting	**- Spatial placement of nets don't pose unnecessary risk to protected species** - One or more crew will actively watch for protected species before setting gear - Spotter plane pilots advise captain if any protected species are near the target school - If protected sharks, rays or marine mammals are detected prior to setting, the vessel will slow and move on to target different schools
Pursing/ Hauling protocols	- One or more crew will maintain watch for protected species when pursing the net - If any protected species are detected, the captain and crew will be informed
Sacking	- protected species released as soon as safe to do so, preferably directly to sea rather than being brought onboard (i.e. 'back down' or 'weighting of cork line' methods) - A brailer or wide sling or a 'lifting mat' is used for captures of large animals
High-risk periods/areas	*- Examples – Stop fishing, avoid fishing near seabird colonies or foraging grounds, etc.* - Some high-risk periods/areas include: *(include areas and times discussed with LO)* - Areas avoided when using external lights at night: x
Light management	- Lighting is reduced to minimum requirements and intensity for operations and safety - Essential lights are shielded, angled, and/or positioned to only light required areas
Other	- Skipper and crew follow safe protected species handling and release procedures - Dead captures are shown to the camera for independent ID; report bands to your LO

Contact your Liaison Officer when a TRIGGER POINT is reached

24 hr	(Alive or Dead) Any great albatross, penguin, dolphin, whale, sea lion, turtle or basking shark (Alive or Dead) 2 albatrosses/mollymawks, or 5 small (e.g. petrel/shearwater) seabirds (Dead) Any black petrel, flesh-footed shearwater or white pointer shark
7 day	(Alive or Dead) 10 protected seabirds of any type or 5 fur seals

Contact:	**Ph:**	**Email:**

TEN GOLDEN RULES FOR PURSE SEINE FISHING TO REDUCE RISK TO PROTECTED SPECIES

1. Ensure your vessel has onboard:
    a. The vessel's Protected Species Risk Management Plan (PSRMP), and
    b. The Purse Seine Operational Procedures.
    c. Summary of regulations pertaining to the fishery.

2. Have a crew member (such as the bridge officer) on watch for the presence of protected species before setting of gear.

3. Do not set gear when marine mammals are at risk of capture.

4. Crew must be alert to and report to skipper if protected species are sighted in the net once set or during pursing.

5. Action must be taken to release protected species as soon as possible from the gear with vessel.

6. Vessel must be familiar with "backdown" method of releasing marine mammals.

7. Carry on board a sling or brailer for handling of large animals especially spine tailed devil rays.

8. Crew know and follow safe handling procedures for captured animals (dead or alive)– return protected species to sea quickly and treat with care.

9. Report all protected species captures by ERS or in the Nonfish Protected Species Catch Return (NFPSCR) logbook and send to FishServe. **It is illegal not to report.**

10. Report protected species trigger level captures to Liaison Officer. A trigger level is a capture level that actions a skipper in real time to try and increase mitigation to reduce ongoing risk of further captures. Please consult your Protected Species Vessel Risk Management Plan for relevant trigger levels.

For support phone your local Liaison Officer.

FISHERIES
INSHORE NEW ZEALAND

TEN GOLDEN RULES

NON-FISH OR PROTECTED FISH SPECIES (NFPS) CATCH REPORTS

1. The Fisheries (Reporting) Regulations 2017 require reporting of **all** NFPS captures (dead or alive). It is an offence to fail to report.

2. All permit holders and skippers must know the law and be able to file an NFPS catch report using their vessel's Electronic Reporting system.

3. Fisheries New Zealand observers file their own NFPS catch reports, but this does NOT mean the vessel's obligation to report has been removed.

4. *Captures* means that the NFPS has become fixed, entangled, or trapped in such a way that it cannot move freely or free itself from any part of the fishing gear. (includes for example tori lines and paravanes)

5. *Deck strikes* means seabirds injured or dead from colliding with the vessel, or any that need crew assistance to leave the vessel because they are disoriented.

6. Treat all animals with respect and care (dead or alive).

7. Return all NFPS to the sea promptly and carefully unless required to be kept on board by a Fisheries New Zealand observer.

8. Unauthorised retention or any further interference with protected species is an offence under the Wildlife Act 1953.

9. If unsure of the species name (NFPS code) use the generic codes provided.

10. E-logbook Users Instructions and Codes can be found here: https://www.mpi.govt.nz/dmsdocument/53995-Fisheries-E-logbook-Technical-Specifications-Circular-2022

FISHERIES
INSHORE NEW ZEALAND

Non-Fish or Protected Fish Species Catch Report - Summary Information

(from Fisheries New Zealand Electronic Catch and Position Reporting Guide 2021)

You must complete an NFPS Catch Report if there is an interaction with the following by the vessel or gear during a trip:

- Birds;
- Marine mammals (e.g. New Zealand fur seal);
- Marine reptiles (e.g. turtles);
- Protect fish species (e.g. basking shark, great white shark, manta ray, black spotted grouper);
- Selected benthic organisms (corals, sponges, and bryozoans).

You will be prompted for more information about how the capture happened if a seabird is taken during trawling or surface or bottom longlining.

You must take care when choosing codes where there is a group option and a specific option so that you do not accidentally report an organism twice.

If there is more than one NFPS capture during an event, they will all be recorded on the same NFPS Catch Report.

The NFPS Report must be completed and provided at the same time as the Fish Catch Report, if it occurs as part of a fish catch event.

If the capture happens while you were not actually fishing (e.g. while steaming), the NFPS Catch Report will be a standalone report, i.e. it will not be linked to a Fish Catch Report and must be completed and provided to FishServe before the end of the day on which you became aware of the capture.

Online resources to assist you with NFPS identification

- The DOC website has material on coastal and deep water seabird species. Guides include MPI reporting codes and are available in multiple languages: doc.govt.nz/ our-work/conservation-services-programme/csp-resources-for-fishers/a-fishers-guide-to-new-zealand-seabirds/
- A fuller set of invertebrate NFPS material is available at: fs.fish.govt.nz/Doc/23020/AEBR_86.pdf.ashx
- A coral guide is available at doc.govt.nz/Documents/conservation/marine-and-coastal/fishing/coral-id-guide-updated.pdf

Purse Seine

Operational Procedures for

Protected Species Risk Management

Version 1.0

FISHERIES
INSHORE NEW ZEALAND

Disclaimer: This document has been produced to serve as a guide to the fisheries regulations relevant to commercial purse seine fishing operations for use by the industry. This is not intended to be used as a substitute to any statutory, regulatory and/or non-regulatory requirements for purse seine fishing. Before acting in reliance, either wholly or partially, on any information contained in this document, readers should seek advice as to how current legislation, rules and regulations may affect their interests. It is the duty of the operator to know and understand the current regulations that apply.

MPI has stated that at-sea inspections will become more directed as a result of the availability of GPR data. Make sure you know what you need to meet legal requirements on protected species mitigation measures and reporting.

Part 1: Introduction

These Operational Procedures (OPs) are written by Fisheries Inshore New Zealand (FINZ) in collaboration with the Department of Conservation (DOC), Fisheries New Zealand (FNZ), and purse seine vessel operators. They set out the management measures required by the Ministry for Primary Industries (MPI) and the Department of Conservation by law (the mandatory measures) as well as additional best practice measures and reporting requirements such as the Mitigation Standards document.

These OPs describe purse seine fishing practices that are acceptable to the Director-General (D-G) of Conservation and satisfy the statutory requirements of 17(1) of the Marine Mammals Protection Act 1978. Any changes to the document (whether minor or major) need to be approved by the Director-General (D-G) of Conservation, so as to remain compliant with 17(1)(b) of the Marine Mammals Protection Act.

Purpose and rationale of these Operational Procedures

The Purse Seine (PS) OPs have been established so that protected species risk reduction practices are documented and able to be understood by vessel owners, skippers and crew.

These OPs are for New Zealand-flagged purse seine vessels and include the domestic purse seine fleet and New Zealand-flagged purse seine vessels that fish on the High Seas. These vessels target highly migratory species (HMS) as well as inshore pelagic species.

These OPs are to be used alongside, or with (but do not replace or override), the following:

- Trigger Reporting of captures of protected species of importance, or multiple capture events that might indicate an area of localised abundance of protected species, or a mitigation failure, or a need to review a vessel plan
- DOC's Handling and Release Guide
- Observer reporting, which documents a vessel's use of mitigation measures and audits the performance of these measures by the fleet
- Any vessel safety plans or operating procedures
- All or any relevant laws and regulations pertaining to fisheries activities in New Zealand waters.

The DOC Protected Species Liaison Programme anticipates including purse seine fishing vessels, subject to operational capacity. The Protected Species Liaison Programme aims to support fishers in achieving best practice and mitigating protected species bycatch. DOC Liaison Officers (LOs) work with the fishing industry to:

- Assist fishers to avoid captures of protected species
- Support fishers to stay up to date with best practice mitigation and any changes to relevant legislation
- Develop vessel-specific Protected Species Risk Management Plans (PSRMPs).

Objectives of these Operational Procedures

The objectives of these OPs are to ensure that:

- Marine protected species mortalities are mitigated by reducing the risk of capture
- All vessels in the fleet have the same information, as well as robust and documented systems, to manage protected species risk and are therefore working together as a fleet to manage the risks
- Vessels' skippers and crew understand that marine protected species mortalities are mitigated by reducing the risk of capture
- Vessel crews are actively involved in protected species mitigation measures and undertake improvements through ongoing, on-board observation, review and improvement processes, *i.e.* **Look –Think – Act**
- Vessels report as required, and as accurately as possible, all capture events (MPI reporting) as well as any event triggers
- Vessels understand and adhere to mandatory measures.

Additionally, these OPs ensure the wider public are informed of the measures undertaken by industry to reduce the risk of capture of protected species.

Status of these Operational Procedures

These OPs come into effect November 2020 and this current version is 1.0.

Application of these Operational Procedures

The Purse Seine OPs detail best practice for handling dolphins, sharks, rays and sea turtles caught during purse seining as these species constitute the majority of historical captures. Information specific to handing cetaceans (whales and dolphins), pinnipeds (fur seals), seabirds and sea snakes can be found in supplemental material. Any protected species interactions, including birds and sea snakes, must be adequately reported and in line with statutory requirements.

Other key documents or rules & regulations

The key legislation that underpins the management and protection of all seabirds, marine mammals and some sharks in New Zealand includes:

- Wildlife Act 1953 and Marine Mammals Protection Act 1978: Require that the accidental capture of any marine wildlife including seabirds, marine reptiles (turtles and sea snakes), protected fishes and corals is permitted provided that the capture is reported to the appropriate authority without delay. **It is not an offence to accidentally capture a marine wildlife species, but it is an offence to not report it**
- Marine Mammal Protection Act 1978: Specifically requires that purse seine nets have escape panels or apertures from which any dolphin or porpoise can readily escape and that fishers follow practices acceptable to the Director-General of Conservation. Some exemptions may be granted (except if fishing for yellowfin tuna)

- Fisheries Act 1996: Requires that measures are taken to avoid, remedy or mitigate any adverse effects of fishing related mortality on any protected species and include requirements to report captures. Provides protection to great white sharks, basking sharks and oceanic whitetip sharks caught by New Zealand nationals fishing on the High Seas
- Animal Welfare Act 1999: Governs the welfare of animals (including fish) in NZ. The Act contains provisions to prevent ill treatment and inadequate care of animals
- Fisheries Commercial Fishing Regulations 2001
- National Plan of Action – Seabirds 2020
- National Plan of Action – Sharks 2013[1]

Marine mammals

Marine Mammals Protection Act

More than 15 dolphin species have been recorded in New Zealand waters, all of which are protected. Off the northeast North Island bottlenose dolphin, long-finned pilot whales and false killer whales are common over the continental slope to about 1000 m depth, while striped dolphin occur further offshore in the Bay of Plenty. Common dolphins are widely observered off both the North Island's east and west coasts. While dolphins are associated with schools of fish, the number of dolphins caught in purse seine fishing gear is typically low compared with other fishing methods. However, high numbers of common dolphins have been reported on occasion. New Zealand fur seals are also caught in purse seine fisheries. These have been recolonising much of their former range from south to north, so while their numbers are greater around the South Island, breeding colonies around the North Island are increasing in size and frequency up both the east and west coasts.

These OPs describe purse seine fishing practices that are acceptable to the Director-General (D-G) of Conservation and satisfy the statutory requirements of 17(1) of the Marine Mammals Protection Act 1978.

Seabirds

The National Plan of Action (NPOA)-Seabirds is part of an internationally visible management framework for seabirds. The NPOA was established as part of New Zealand's obligations under the Food and Agriculture Organization's (FAO's) International Plan of Action (1999) and is linked to United Nations (UN) and FAO processes and guidelines. It sets out objectives for the next five years to guide the management of risk to seabirds in New Zealand fisheries.

These OPs acknowledge commitments under the NPOA-Seabirds and support vessel-specific protected species risk management plans to achieve the goals of the NPOA-Seabirds. Of the 71 species included in the current risk assessment, New Zealand white-faced storm petrels (as well as

[1] Under review as of December 2020

unidentified storm petrels) and some giant petrels have been reported to be captured and released alive during purse seine operations.

Note that lights at night can attract seabirds to vessels. While seabirds can be injured or killed by impacting fishing vessels, deck strikes are not considered to be fishing-related mortalities. However, the risk of such strikes occurring can be managed by minimising deck lighting at night to only that is necessary for safe operations.

Observed trips have shown that seabird interactions are very low in the skipjack purse seine fishery.

Sharks and Rays

All shark species are assessed for risk by FNZ. Spine-tailed devil rays, oceanic/giant manta rays, whale sharks, smalltooth sandtiger sharks, basking sharks, great white sharks and oceanic whitetip sharks are protected under the Wildlife Act 1953. Basking sharks, great white shark and oceanic whitetip sharks are also protected under the Fisheries Act 1996. Spine-tailed devil rays, manta rays and whale sharks are all attracted to free-swimming schools of skipjack tuna. Spine-tailed devil ray is a noted and reported bycatch species in purse seine fisheries and is the most frequently reported protected fish taken in New Zealand commercial fisheries, with most reported captures being by purse seine. It has a low reproduction rate, making it vulnerable to additional mortality.

The National Plan of Action – Sharks 2013 (NPOA-Sharks) documents New Zealand's planned actions for the conservation and management of sharks.

Turtles

Leatherback, green, hawksbill, loggerhead and olive ridley turtles occur in New Zealand waters. There is little dietary overlap between turtles and fishes targeted by New Zealand purse seine fisheries and no turtles have been observed or reported caught in New Zealand purse seine operations to the end of the 2018 fishing year. An increased presence of turtles may be expected as a consequence of warmer seas if recent oceanic conditions continue.

Part 2: Risks Associated with Purse Seine Fisheries

Overall, purse seine fisheries are regarded as highly selective and result in minimal interactions with non-target species. Protected and other bycatch species may interact with a purse seine accidentally, or may become attracted to the net once other fish are captured. Once bycatch species interact with the net they are at risk of being caught, injured, and/or drowned.

Tables 1 – 4 provide details on protected species risks associated with purse seine fisheries.

Table 1: Main seabird species at risk in purse seine fisheries.

Species	***Species Code***	***Main Risk Area***
White-faced Storm Petrel	XST	• Sub-species breeds only in New Zealand. Usually forages over the continental shelf during the breeding season. In the non-breeding season (April to August), birds disperse to the eastern tropical Pacific with sightings in Ecuador and the Galapagos Islands. • During the summer breeding season this is the most commonly encountered storm petrel in coastal waters, particularly near breeding sites such as northeast of the North Island and near the Chatham Islands.
Giant petrel	XNP (Northern), XSP (Southern), XXP (Unidentified petrel)	• Northern Giant Petrel: Birds disperse widely over the Southern Ocean, mainly north of the Antarctic Convergence. The northern giant petrel is more restricted to foraging near shorelines than the southern giant petrel. Many mature northern giant petrels remain near their breeding colonies year-round, while immature birds appear to make circum-polar journeys • Southern Giant Petrel: Breeding adults spend summers near breeding colonies. In winter, some adults remain in Antarctic waters, while others move further north and disperse across the Southern Ocean.

Table 2: Main marine mammal species at risk in purse seine fisheries.

Species name	***Species Code***	***Main Risk Area***
New Zealand fur seal	FUR	• Known to feed on jack mackerel • Fur seals are found throughout New Zealand and are expanding into northern waters.
Bottlenose dolphin	BDO	• In New Zealand three main coastal populations exist and around 450 individuals live in the North Island area, ranging from Doubtless Bay in Northland to Tauranga.
Common dolphin	CDD	• NI west coast & east coast populations • Known to feed on jack mackerel • Found throughout NZ waters, can form huge schools, more common further to the North of NZ • Common dolphins are considered 'Not threatened' by the Department of Conservation and as 'Lower risk' by the International Union for Conservation of Nature. There are no estimates for population size in New Zealand, though they are thought to be abundant.

Table 3: Sharks and rays at risk in purse seine fisheries.

Species name	***Species Code***	***Main Risk Area***
Spine-tailed devil ray	MJA	• Appears to migrate to New Zealand waters during summer and is common over the outer continental shelf and near the shelf edge off the northeast coast of the North Island • They can occur as far south as East Cape and Cape Egmont • Usually seen in groups of 6 – 7 individuals, occasionally in much larger groups off Northland.
Manta ray	RMB	• Relatively common over the mid-outer continental shelf and near the edge of the shelf off the northeast coast of the North Island and are occasionally reported south to about Taranaki off the west coast. • They are usually encountered as individuals or pairs and do not appear to associate with devil rays.
Whale Shark	WSH	• Reported from 34 – 38° S. They migrate annually to northeast New Zealand and may range as far south as waters off Fiordland and South Canterbury.
Oceanic whitetip shark	OWS	• Recorded off the North Island and around the Kermadec Islands • None have been observed or captured in NZ.
Great white shark (aka white pointer shark)	WPS	• Found throughout NZ waters • Most sub-adult and adult white pointers here also spend part of the year in the SW Pacific.
Basking shark	BSK	• A large filter-feeding shark normally found south of about 39° S but occasionally recorded off the northeast coast of North Island. May occur singly or in large schools, on the surface or to over 1000 m depth. Easy to detect and avoid when at the surface.

Table 4: Marine reptiles at risk in purse seine fisheries.

Species name	***Species Code***	***Main Risk Area***
Sea turtles	TLE	• Leatherbacks (LBT) and Green turtles (GNT) are regularly encountered off northern New Zealand • Hawksbill (HBT) are occasionally seen at the Kermedec Islands and have strandes as far south as Cook Strait • Loggerheads (LHT) in New Zealand are mainly pelagic-phase juveniles • Olive ridleys (TLE – generic code) are vagrants, stranded animals have been recorded off North, South and Stewart Islands.

Part 3: Industry Responsibilities

Commitment to these procedures

All vessel owners or operators of vessels in purse seine fisheries are required to adhere to these OPs and ensure that crew are trained on these procedures. Ongoing engagement with a Liaison Officer is encouraged.

Vessel owner and operator responsibilities

The vessel owners and operators will:

- Ensure all crew are briefed on these OPs and fully understand all the actions required with the OPs, a copy of which should be kept in the vessel wheelhouse at all times
- Have a current Protected Species Risk Management Plan (PSRMP, Appendix 2). This vessel-specific plan will be adhered to by the vessel crew and reviewed by the vessel operators as and when required
- Be aware of all regulatory requirements and protected species reporting requirements
- Manage fishing operations based on their experience and the information provided in these OPs to minimise overlap in time and space with protected species
- Be aware of seabird/marine mammal activity around the vessel, assess risks and take actions needed to minimise risk, especially carefully managing the setting of gear in the vicinity of such activity
- Minimise (with due consideration to ship and crew safety) all unnecessary deck lighting when sheltering or at anchor
- Avoid setting gear on protected species observed, such as marine mammals, sharks and rays. If these are seen to be present in the school of target fish, the fishing operation will be delayed or relocated
- Carry onboard and ensure crew are aware of the standards and requirements of “The 10 Golden Rules for Purse Seine Vessels” (Appendix 1)
- Ensure correct reporting to FNZ and that trigger reports are sent promptly to DOC
- Address any deficiencies in implementation of these Operational Procedures as noted by any MPI observer (Appendix 3)
- Communicate with DOC and FINZ if protected species captures consistently exceed the triggers, so that these OPs are reviewed
- Ensure at least one crew member (such as the Bridge Officer) is made solely responsible for determining the presence/absence of protected species before the commencement of, and during, the fishing operation, particularly during net retrieval and ensure that any sightings are immediately reported to the vessel Master
- Ensure crew are meeting the responsibilities listed below.

Vessel crew responsibilities

All vessel crew must:

- Manage fish waste and discharge to reduce attraction of protected species to the vessel

- Maintain an alert watch of protected species activity around the vessel and advise the skipper as appropriate when it is clear that there is risk that requires action
- Avoid setting gear on protected species observed, such as marine mammals, sharks and rays if these are seen to be present in the school of target fish the fishing operation will be delayed or relocated
- Before pursing, if a marine mammal or ray species is observed once the net is committed, the Master (mindful of vessel and crew safety) may release the bow or stern of the net attached to the tow line cable to recreate the aperture and allow the animal to escape. If the animal does not swim free, and it is safe to do so, every effort should be made to encourage the animal to leave using the work boats
- If a marine mammal or ray species is observed once the net is fully closed and stacking of the net has commenced, it will no longer be possible to release the ends of the net and recreate the aperture. In this case, it may be possible to coax the animal out over the cork line or use the brailer to lift it up and over the net
- Check and maintain any mitigation equipment such as acoustic pingers or other deterrent devices.

Generic Mitigation techniques

Ways to reduce risk during SETTING include:

- Understand areas of high activity of protected species (season, area, time of day or night etc.)
- Avoid setting gear on protected species observed, such as marine mammals, sharks and rays if these are seen to be present in the school of target fish the fishing operation will be delayed or relocated
- For seabirds, close attendance of purse seine gear during setting and retrieval during daylight operations allows the implementation of mitigation measures, particularly tow-off procedures that remove folds in the net that can entrap birds.

Ways to reduce risk during PURSING include:

- Effort should be made to encourage the animal to leave using the work boats
- Manage offal and fish waste discharge procedures
- Where possible, manage lofting of the net above the sea surface in high wind or wave conditions when seabirds and marine mammals are present
- Consider the use acoustic or other sound devices to deter the presence of risk species at the gear
- If a protected species is observed once the net is committed, mindful of vessel and crew safety, and if practical, release the bow or stern of the net attached to the tow line cable to recreate the aperture and allow the animal to escape
- If the animal does not swim free, and it is safe to do so, every effort should be made to encourage the animal to leave using the work boats.

Ways to reduce risk during SACKING & BRAILING include:

- When practical and safe to do so, releasing protected species from the net while in the purse and still in the water before sacking begins, is the preferred option as this minimises handling, but this is not always possible. Bringing the animal onto the deck and then releasing it takes more time and adds greater risk of possible injury to the animal
- When practical and safe to do so, when species do need to be bought onboard, use brailing equipement or wide slings or a 'lifting-mat'. Refrain from using smaller diameter strops, ropes, hooks or cargo nets as these can tear, crush or cut into soft tissue and increase risk of injury
- Once on deck, all live animals must be carefully handled and returned to the sea as quickly as possible/practicable.

Part 4: Protected Species Handling & Release and Crew Safety

Release alive

Every care should be taken to release animals alive, reduce stress and handle with care to minimise any further harm or injury to the animal, and to increase survivability when it is being returned to the sea. **Deliberately harassing or harming an animal after incidental capture is an offence.**

All crew handling of protected species will follow best practice guidelines where appropriate, as detailed in the broader protected species documentation. DOC's Handling and Release Guide is provided as supplementary material.

Procedures when dealing with turtles, sharks and rays should be consistent with WCPFC Guidelines.

General advice

- Avoid setting gear on protected species observed, such as marine mammals, sharks and rays if these are seen to be present in the school of target fish the fishing operation will be delayed or relocated
- If a marine mammal or ray is observed once the net is committed, the Master (mindful of vessel and crew safety) may release the bow or stern of the net attached to the tow line cable to recreate the aperture and allow the animal to escape. If the animal does not swim free, and it is safe to do so, every effort should be made to encourage the animal to leave using the work boats
- It may be possible to coax the animal out over the cork line or use the brailer to lift it up and over the net if the net has already been pursed
- For rays, great white sharks and sea turtles, the accepted practice is to try and herd/direct the animal to swim out over the top of the net
- If the animal is entangled, manoeuvre the work boat or skiff alongside the animal if possible rather than herding the animal to the main vessel
- Try to keep the animal in the water while the fishing gear is carefully removed. All fishing gear and ropes should be completely removed from the animal before it is released

- If the fish are landed, the brailer/webbing cargo net can be used to manoeuvre the accidentally caught protected species back into the water. Note that lifting and/or hoisting an animal can cause permanent damage and should only be adopted as a last resort
- Note that rays or turtles may be present in the brail without the crew realising.

Seabirds

- Keep the bird calm by covering the head with a cloth. If available use two crew; one to support the bird while the other frees the gear from the bird. Use gloves and eye protection (beware large birds can inflict a nasty bite). Carefully isolate the tangled meshes
- When freed, place the bird gently back onto the water. If the bird is exhausted/waterlogged, put it in a safe space and let the bird dry out for an hour or two. When the bird is dry or active again, ease the bird back onto the water as close to the water surface as possible
- Release the bird carefully. Do not throw the seabird into air.

Marine Mammals

- In the event that a dolphin requires direct handling, support the dolphin's head above the water at the side of the boat using a piece of thick webbing placed under the body between the top (dorsal) fin and the side (pectoral) flippers
- If you absolutely have to bring the dolphin on board and it is small enough to lift using the sling, maintain the animal at all times in a horizontal position
- Under no circumstances hang the dolphin up by the tail as this may cause spinal injury and may result in death
- As bottlenose dolphin can weigh anywhere between 45 and 300 kgs, care must be taken not to put crew at physical risk of injury.
- Fur seals are much more mobile and in theory should be better able to escape the net close to the surface without assistance.
- However, if handling of fur seals is required, ensure multiple deck hands are able to assist especially if it is a large male (upto 150kgs).
- One person can hold the hind flippers, one in each hand, and attempt to guide the fur seal out of the net.
- They can swing around to bite easily so a second person to **guide** the head with a pole or similar (rather than a hand) is helpful.
- If restraining on board to rerelease one can throw a blanket or tarp over the seal to help calm it, and then one person can hold the shoulders/neck (controlling the head) while the other person holds the hind flippers.

Rays

- Live rays should never be handled using gaffs or lifted using hooks placed in any part of their body
- Minimise the amount of time the ray is out of the water and if possible keep them wet using a deck hose

- Smaller rays can be picked up by the spiracle or snout. For larger rays, use at least two people and hold by the wings. Take care to avoid the spine at the base of the tail. Large rays should be released directly from the brailer where possible, or alternatively by using a tarp, canvas or other large piece of material which is lifted by the ship's crane. Ideally, the animals should be released using the crane rather than manual handling
- If possible, try and remove the animal from net without bringing it aboard as their body structure does not protect their internal organs when hauled on deck or over rails etc.

Sharks

- Where sharks have become entangled in the net during the reeling process, reduce the speed of the net reel and try to disentangle the animal
- Lifting the shark up towards the power block is dangerous for both the shark and the crew. Sharks should be disentangled in the water as this results in increased probability of survival for the shark and a lower risk of harm to crew members
- If the shark must be brought on board, release it as soon as is safely possible. Lie the shark on its side to prevent crushing of the internal organs and cover the head with a dark cloth but be wary while working near the head
- Never pick up or hang sharks by the tail as this has a high probability of causing spinal or tail damage and is dangerous for the crew. Never hold sharks more than halfway down the body as they are very flexible and most species can reach their own tails with their mouths
- Treat all sharks as if they are alive, as even sharks which appear to be dead may suddenly lash out and cause injury
- Larger sharks should only be manoeuvred using a sling or brailer. Release headfirst, close to the water.

Whale and Basking sharks

- Whale sharks should only ever be dealt with in the water. Do not tow the animals or hoist by the tail
- They can be released from the net while it is still in the water by cutting a hole a few metres in diameter and allowing the fish to swim through
- Alternatively, it may be possible to roll the animals over the top of the net. A rope can be tied on to the cork line, run under the animal and then slowly and gently hoisted to roll the shark over the cork line.

Turtles

- If a sea turtle is sighted in the purse seine, all reasonable efforts should be made to rescue the turtle before it becomes entangled in the net
- If entangled in the net, hauling should stop as soon as the turtle comes out of the water and should not start again until the turtle has been disentangled and released
- Once brought aboard all appropriate efforts to assist in the recovery of the turtle should be made before returning it to the water

- Turtles should be held by the front and back edges of the shell and do not carry by the flippers. Avoid carrying them in a way which is likely to inflict cuts or any other injuries as this can lead to infection and subsequent death after release
- Leatherback turtles are too large to be held and should be lifted using the brail or crane, taking care to avoid injury
- Prevent the animal from drying out by spraying with water periodically, avoiding the face
- When returning turtles to the water release them headfirst just above the water. Do not drop or throw them from height
- Inactive or unresponsive turtles aren't necessarily dead and recovery may be possible. If an inactive captured turtle can be brought on board, do so, keeping it in the shade for at least four hours. An old tyre makes a good platform to set turtles on while they recover
- Lie the turtle on its belly with the tail end elevated by 20 cm to drain any water that may have entered the lungs.

Returning Dead Seabirds, Marine Mammals and Protected Sharks to the Sea

- The entire body of any dead protected species must be returned to the sea, unless an MPI observer onboard the vessel directs the skipper to keep it (or they themselves keep it) or the skipper has been permitted by DOC or FNZ to keep it. Usually, observers only retain seabirds, but may take samples from marine mammals or protected sharks.
- **Taking any part and keeping it without a DOC permit, or cutting or mutilating the body of a protected species is an offence**
- If a bird has a leg band, record (take a picture) of any visible number before returning the bird to sea and send the picture to: bandingoffice@doc.govt.nz.

Handling and Crew Safety Issues

- Seals can carry a number of infectious diseases which can infect humans. Live marine mammals are potentially dangerous to humans particularly when they are in stressful situations. Handling marine mammals should always be kept to a minimum and should only occur if and when needed
- When attending to animals landed on deck the following steps should be followed to ensure crew safety:
    - Whenever handling bodies of drowned sea lions, fur seals or any other marine mammals, wear waterproof gloves and waterproof protective clothing
    - Where possible, avoid direct contact with blood, urine, faeces and other body fluids. It is also important to avoid the mouth of the marine mammal as this is a major source of disease
    - If bitten or grazed by a marine mammal, wash and disinfect the wound immediately, apply betadine/antiseptic ointment and cover the wound. This minimises the risk of 'seal finger', a chronic and very painful infection caused by bacteria carried by some marine mammals
    - After handling any marine mammal, crew should wash their hands and forearms with antibacterial soap and their protective clothing by hose-down
- Details of **tagged protected species** should be sent to the following people:

- Rays, Turtles & Sharks (tagged) should be reported to FNZ/MPI (comms@fish.govt.nz) and DOC (marine@doc.govt.nz)
- Notification of the capture and/or tag recovery should be sent to the address on the tag (if present), otherwise return to DOC.

Report all captures to the skipper and record in the Electronic Reporting System (ERS).

Part 5: MPI Mandatory Reporting

It is not illegal to accidentally capture protected species while commercially fishing, but it is illegal to fail to report the capture.

All protected species captures or deck strikes (see below), dead or alive (then returned to the sea) must be recorded in the Non-Fish Protected Species Catch Return form (NFPSCR), or the Electronic Reporting System (ERS) equivalent, and then furnished to MPI as required under the regulations. MPI observers may decide to keep some protected species caught for formal identification or autopsy. They are permitted to do so. The vessel may only keep a body if it holds a current DOC permit.

It is important that all captures and mortalities are reported accurately.

Reporting requirements include all non-fish protected species.

At times it is useful to take some pictures of any important or unusual protected species captures to help with species identification. Send pictures to FINZ. For advice, or for help with positive identification, contact FINZ info@inshore.co.nz or DOC (marine@doc.govt.nz).

NFPSCR codes

View species codes in Tables 1-4 of this document and in supplementary material.

Unless you can positively identify the species, use the following Generic-Codes:

- XAL - Albatross (unidentified)
- XXP - Petrels, prions, and shearwaters (unidentified)
- WHT - Dolphins & toothed whales (unidentified)
- TLE - Turtles (unidentified).

Record any leg band or flipper tag numbers on the form and take a photo for forwarding to FINZ. You may also come across other recording equipment attached to seabirds, large rays or marine mammals. If the animal is dead, keep the recording device and contact DOC (marine@doc.govt.nz) or FNZ (comms@fish.govt.nz).

Definitions

Capture: An animal (dead or alive) which is brought onboard on/by the fishing gear and is trapped, tangled or unable to move freely and requires assistance/help off the vessel.

Deck-Strikes: Birds that 'collide' with the vessel/deck/superstructure and are dead or injured, unable to leave vessel of its own accord; are reported as 'deck-strikes' (not reported if alive and leaves the vessel unassisted, *i.e.* landed on vessel).

Always meet your legal requirements. Record all captures whether dead or released alive and notify via the ERS as required under the fisheries reporting regulations.

Part 6: Reporting Triggers

Trigger limits are based on the Coastal Purse Seine real-time reporting 'threshold' system. Once a trigger is reached, the skipper is to communicate with the DOC Liaison Programme, and the operator/owner and skipper (noting these might be the same person at times) will review the situation. Whenever appropriate, the vessel crew may need to take additional steps to mitigate risk of further capture events.

Purse Seine Liaison Programme Triggers & Reporting Requirements

A trigger has been reached if, in **any 24 hour period,** the vessel captures and lands on deck**:**

- 5 or more small seabirds (petrels, shearwaters, prions, shags)
- 3 large seabirds (albatross,(mollymawks), giant petrel)
- 1 greater albatross (Antipodean, royal, wandering, Gibson's etc)
- 1 black petrel
- 1 flesh-footed shearwater
- 1 penguin
- 1 Hector's or Māui dolphin
- 1 dolphin or 1 whale or 1 orca
- 2 fur seals
- 1 white pointer shark (great white shark)
- 1 basking or whale shark
- 2 turtles (any species)
- 2 manta rays
- 4 spine-tailed devil rays.

A trigger has been reached if, in any **7 day period,** the vessel captures and/or has the following:

- 10 or more dead seabirds (all types of seabird)
- 5 or more (dead or alive) fur seals.

Purse Seine Triggers Breach & Reporting Contact 24/7

The vessel must directly (or via the onshore Vessel Manager), notify FINZ and the dedicated Liaison Officer **within 24 hours** of any trigger breach so that any follow-up deemed necessary can be discussed and carried out. Emails from Sat-C or texts are OK.

FINZ: (info@inshore.co.nz)

Protected Species Liaison Programme: (liaison@doc.govt.nz)

Part 7: Audit and Review

FNZ Observer Review Form

During any voyage with an MPI Observer present, the Observer will review the vessel equipment and performance against these OPs and (where applicable) the vessel-specific Protected Species Risk Mitigation Plan (PSRMP). The Observer Audit Form will be used to document the assessment of vessel and crews' performance.

The Audit Form is completed by the Observer at the end of the voyage and submitted to FNZ. A copy is also sent to the DOC Liaison Programme Coordinator for oversight and review, who then forwards this to the vessel operator.

Any issues or events noted by the Observer against the vessel or crew performance regarding the OPs will be followed up and addressed with the vessel operator. Good performance will also be noted.

With future assistance from the DOC Liaison Programme, vessel and crew practices and performances will be reviewed both by the vessel operator and the Liaison Officer. When necessary, improvements to risk reduction measures listed in the PSRMP will be made.

Plan Review

Your PSRMP may also need updating if you change gear or target species, or there are changes in any element of your fishing operations that relate to the risk of protected species captures. At these times, please contact your Liaison Officer.

If there are any changes to regulated mitigation measures or new mitigation options preferred, your PSRMP must be amended.

Public Reporting

Aggregated outcomes of these audits, and the number of issues that arise each fishing year, are publicly reported by FNZ in its Annual Review Report. Note that individual vessel details are confidential to the operator, DOC and FNZ and cannot be disclosed publicly.

Part 8: Appendices

Appendix 1 – Ten Golden Rules for Purse Seine Fishing to Reduce Risk to Protected Species

1. Ensure your vessel has the Purse Seine Operational Procedures onboard.

2. Ensure you know the legal requirements for using purse seine gear, areas closed to fishing and reporting of non-fish protected species bycatch.

3. Understand the locations and seasonal fishing grounds when possible risk to spine-tailed devil rays is likely to be higher.

4. A crew member (such as the bridge officer) will actively watch for the presence of protected species before setting of the gear and avoid setting on protected species observed, such as marine mammals, sharks and rays if these are seen to be present in the school of target fish.

5. Crew members are to maintain a watch for protected species when pursing the net, and if/when species are identified, inform the skipper and take action to release animals when safe and practical to do so.

6. If marine mammals are observed in the net every effort should be made to guide the animal/s to leave the gear. The captain must be familiar with, and have necessary knowledge and gear, to deploy the ‘back-down’ or weighting of cork line methods.

7. Survival rates are increased when larger animals are released directly from the net into the water (not transferred onboard). Carry onboard a large sling or brailer for handling of large animals.

8. Crew must know and follow safe handling procedures for captured animals (dead or alive).Handle any live protected species with care and return to sea as quickly as possible.

9. Report all protected species captures by ERS [or in the Non-fish Protected Species Catch Return (NFPSCR) logbook. It is illegal not to report. Unless you can positively identify the species, use the Generic Codes (see codes listed in Operational Procedures).

10. Report protected species ‘Trigger’ captures to vessel management and DOC within 24hrs. Ensure your senior officers onboard know the species triggers (see Trigger species listed in Operational Procedures).

For support phone your local Liaison Officer.

Appendix 3 – Protected Species Risk Management Plan Observer Audit Form - template

(To be provided by FNZ).

Managing artificial lights to reduce seabird vessel strikes

Aotearoa New Zealand is the seabird capital of the world. Our seabirds are taonga (treasures) and our long coastline is dotted with their colonies. Unfortunately, many of our seabirds are threatened with extinction, so managing threats, including light pollution, is critical to their survival.

Why is light management important?

Many seabirds get disorientated by artificial lights at night, which can lead to collisions with vessels (vessel strikes). Following vessel strikes, seabirds can be contaminated with chemicals on deck (eg oil or fuel), causing loss of waterproofing and subsequent drowning. Vessel strikes can also cause direct seabird deaths. The risk of vessel strike is highest during foggy and rainy nights.

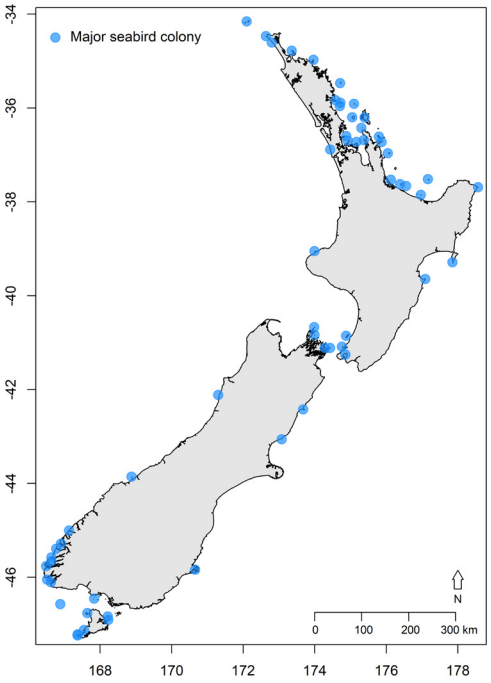
What can you do to help seabirds?

We recommend taking the following actions, while maintaining vessel and crew safety.

- Minimise light use, especially spotlights and floodlights, when you are within 5 km of an offshore island, where most seabird colonies are located.
- Avoid unnecessary movements and activities at night.
- Eliminate unnecessary lights.
- Shield lights to only light areas essential for safe operations.
- Use lights with reduced or filtered blue and violet wavelengths (eg 2200 K).
- Use black-out blinds wherever possible.
- Practice safe seabird handling and release techniques when vessel strikes occur (see diagrams below).
- Record and report vessel strikes.

Commercial fishers

- Follow your Protected Species Risk Management Plan and operational procedures.
- Contact your liaison officer for more information.




Sooty Shearwater


Antarctic Prion

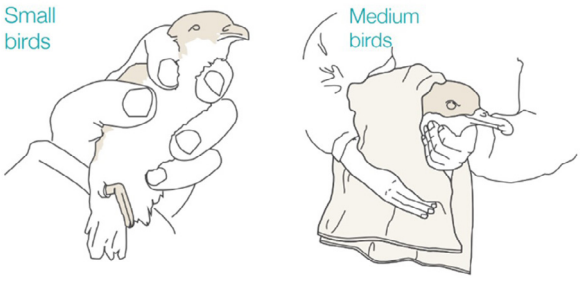

Black-bellied Storm Petrel


Common Diving Petrel

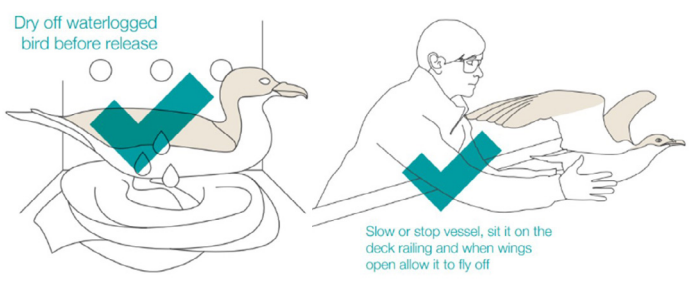
Shearwaters and petrels (including diving petrels, storm petrels and prions) are particularly susceptible to vessel strikes. *Photos: Oscar Thomas*

For more information contact **marine@doc.govt.nz**.

Safe seabird handling techniques



Safe release techniques



Department of Conservation *Te Papa Atawhai*

Nō te rere moana Aotearoa MARITIME NEWZEALAND

Te Kāwanatanga o Aotearoa New Zealand Government

Fisheries New Zealand

Tini a Tangaroa

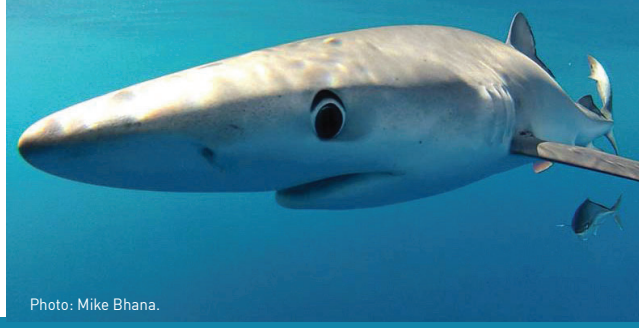


Photo: Mike Bhana.

Fact Sheet 1/4

Conservation and management of New Zealand sharks

1

Over 113 species of sharks have been reported in New Zealand waters. Sharks are now known to be an important part of marine ecosystems and New Zealand's *National Plan of Action – Sharks* (available at www.mpi.govt.nz) recognises this.

SHARK FINNING BAN

From 1 October 2014, it is **ILLEGAL TO REMOVE THE FINS FROM A SHARK AND DISCARD THE BODY OF THE SHARK AT SEA**. The Fisheries (Commercial Fishing) Regulations 2001 require that any shark fins landed must be naturally attached to the body of the shark (see fact sheet 2).

The Regulations provide exceptions to the "fins attached" requirement for eight species of shark. These exceptions take two forms, the first is for blue shark and it allows the fins to be removed from the body but requires that the fins be attached to the trunk after processing (before landing). The second exception is for seven other QMS species, for which the fins may be landed separately but in accordance with a gazetted ratio (see fact sheet 3).

The management of individual shark species depends on the scale of catch, as well as other factors such as how vulnerable they are to fishing. You are likely to come across the following categories –

- **QUOTA MANAGEMENT SPECIES**
  - –Blue shark BWS
  - –Elephant fish ELE
  - –Ghost shark GSH
  - –Mako shark MAK
  - –Pale ghost shark GSP
  - –Porbeagle shark POS
  - –Rig SPO
  - –School shark SCH
  - –Spiny dogfish SPD

Nine species of shark are managed under the Quota Management System (QMS). Catches of these species must be retained like any other QMS species, unless they are listed on Schedule 6 of the Fisheries Act 1996. A separate fact sheet is available explaining the conditions under which Schedule 6 applies and providing information on the appropriate recording of Schedule 6 releases (see fact sheet 4).

- **NON-QUOTA SPECIES**

The remainder of shark species are not managed under the QMS. Reporting obligations still apply for these species, but they do not have to be retained and landed.

You are encouraged to use best practice handling methods to release sharks alive wherever possible.

Note that you are not required to land any fins.

Approach	Species	
Fins naturally attached	Spiny dogfish All non-QMS species	SPD
Fins artificially attached	Blue shark	BWS
Ratio	Elephant fish Ghost shark Mako shark Pale ghost shark Porbeagle shark Rig School shark	ELE GSH MAK GSP POS SPO SCH

FOR MORE INFORMATION

Fact sheet 2 – Landing sharks with fins attached

Fact sheet 3 – Landing shark fins subject to a ratio

Fact sheet 4 – Requirements for returning sharks to the sea (Schedule 6)

A copy of the regulations is available at: **http://legislation.govt.nz**

Conservation and management of New Zealand sharks

- **PROTECTED SPECIES** – catches of these species both in the EEZ and on the high seas cannot be retained by law, but all catches must be reported on the "non-fish species or protected fish species catch reports":
  - Basking shark BSK
  - Great white shark (White pointer shark) WPS
  - Oceanic whitetip shark OWS
  - Deepwater nurse shark ODO
  - Whale shark WSH

- **CITES-LISTED SPECIES NOT OTHERWISE PROTECTED:**
  - Porbeagle shark POS
  - Smooth, scalloped and great hammerhead sharks HHS
  - Shortfin mako shark MAK

Porbeagle, hammerhead, and more recently mako sharks have been listed in Appendix II of the Convention on International Trade in Endangered Species. Any landings from the high seas now require a "CITES introduction from the sea" permit before bringing any sharks into NZ fisheries waters. Exports of these sharks or their products now requires a "CITES export/re-export" permit.

Note that sharks caught in the New Zealand EEZ but not exported are not subject to CITES regulation. The CITES documentation process is administered by the Department of Conservation. For more information see **http://www.doc.govt.nz/cites**

Fisheries New Zealand

Tini a Tangaroa

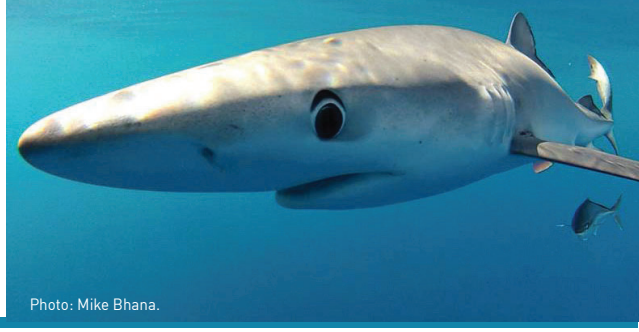


Photo: Mike Bhana.

Fact Sheet 2/4

Landing sharks with fins attached

2

The Fisheries (Commercial Fishing) Regulations 2001 require that for all non-quota management system (QMS) species, spiny dogfish, and blue shark, any fins to be landed must be attached to the remainder of the shark.

Blue shark

If you are planning to land the fins of any blue shark they must be attached to the trunk of the shark.

If you are retaining blue shark fins, you may land the shark either green (whole) or as the principal product state of **"SHARK FINS ATTACHED"** (SFA). This state is described as the shark being processed to the dressed state (see Figure 1 over the page) and then the fins re-attached by some artificial means. This includes (but is not limited to) stitching them on, or storing both the dressed trunk and the fins in the same bag (one shark per bag).

This rule will allow the small fishery for blue shark meat to continue, by allowing processing at sea to maximise the value of the fish, but still allowing for retention of the fins.

Note that you are not required to land the fins; you may land a different principal product state of blue shark. It is only if you wish to retain the fins that you must land it in either the "**SHARK FINS ATTACHED**" state or green. You are allowed to return unwanted blue shark to the sea under Schedule 6 provisions (see fact sheet 4).

Spiny dogfish and all non-QMS species

For spiny dogfish and non-QMS species, any fins landed must be **naturally** attached to the remainder of the shark. This means that there must be some portion of uncut skin connecting the fins to the body. If you are retaining fins, you may land these sharks either as green (whole) or as the principal product state **"SHARK FINS ATTACHED".** This is defined for spiny dogfish and all non-QMS species as the fish being processed to the headed and gutted state with the primary fins naturally attached (i.e. the pectoral fins, dorsal fins and some or all of the caudal (tail) fin).

You may cut the fins to allow them to be folded flat against the fish, or to allow for bleeding, but they must remain naturally attached to the trunk of the shark if they are being landed.

Note that this does not preclude landing another primary landed state. It is only if you wish to retain the fins that you must land it in the "**SHARK FINS ATTACHED**" state.

Non-QMS species can also be legally returned to the sea (dead or alive) if you don't wish to retain them (reported on disposal reports under disposal code "D"). Spiny dogfish can be returned (dead or alive) and reported on disposal reports under disposal code "M".

FOR MORE INFORMATION

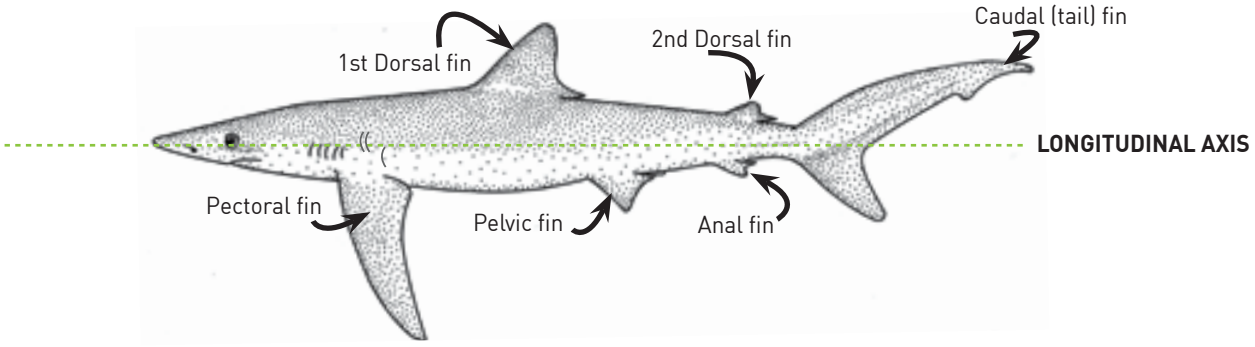
Fact sheet 1 – Conservation and management of New Zealand sharks

Fact sheet 3 – Landing shark fins subject to a ratio

Fact sheet 4 – Requirements for returning sharks to the sea (Schedule 6)

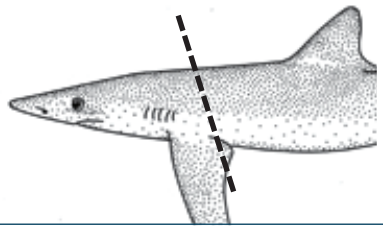
A copy of the regulations is available at: **http://legislation.govt.nz**

FIGURE 1: BLUE SHARK (BWS) DRESSED (DRE)



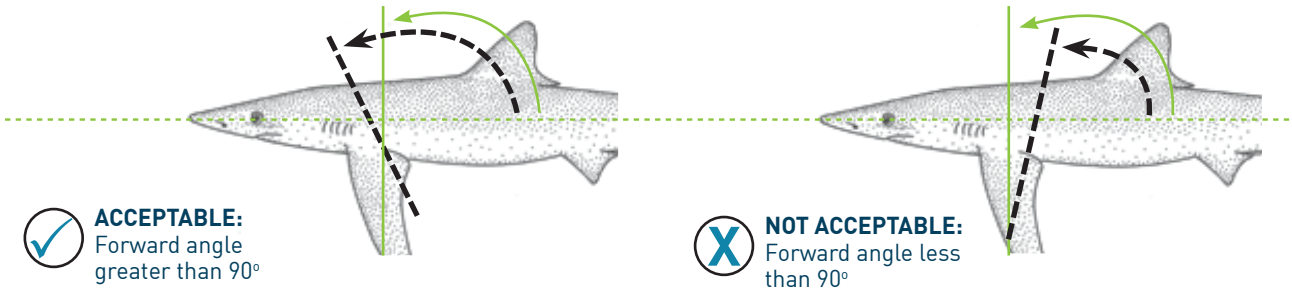
The body of a fish from which the head, gut and fins have been removed with:

1) the anterior cut being a straight line passing immediately behind the posterior insertions of both pectoral fins.

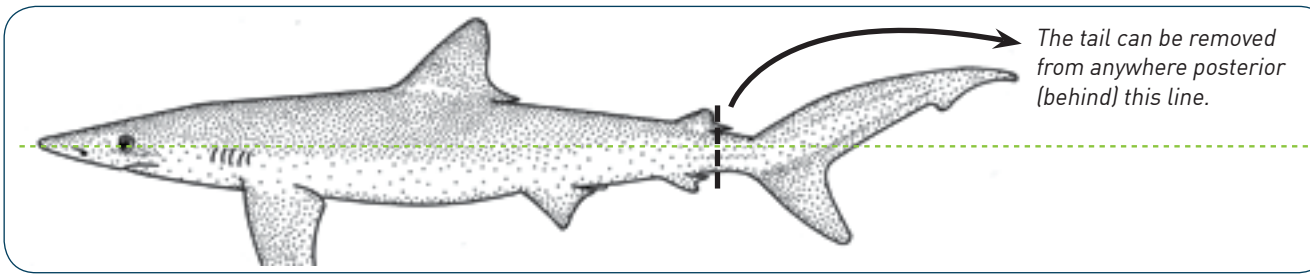


(The posterior insertion of the pectoral fin means the point along the body of a fish at which the rear (posterior) edge of the pectoral fin emerges.)

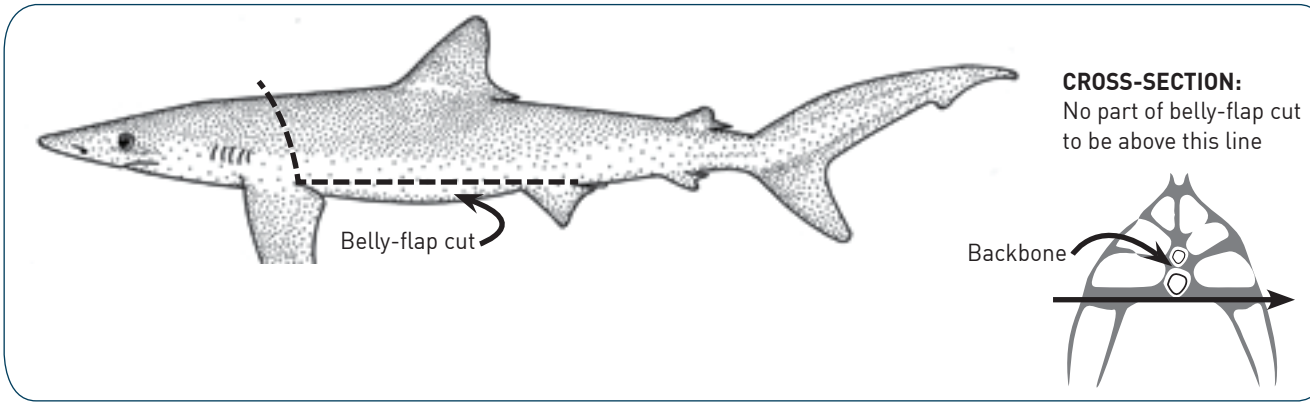
2) the forward angle of the anterior cut not less than 90 degrees in relation to the longitudinal axis of the fish.



3) no part of the tail cut forward of the posterior base of the anal fin.



4) the belly-flap may be removed by a cut, no part of which is dorsal to the cartilaginous backbone.



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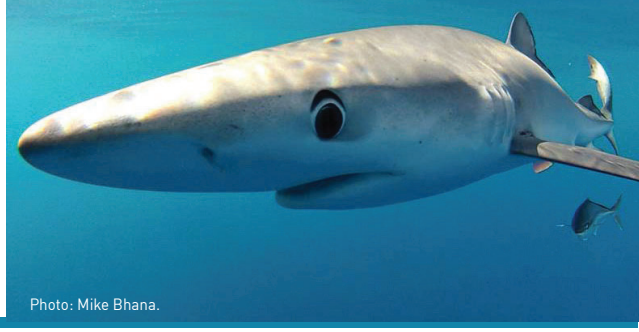


Photo: Mike Bhana.

Fact Sheet 3/4

Landing shark fins subject to a ratio

3

The Fisheries (Commercial Fishing) Regulations 2001 prohibit shark finning and require that any shark fins landed must be naturally attached to the remainder of the shark (or artificially in the case of blue shark). However, an exception to the fins attached requirement is provided for seven QMS species to allow at-sea processing to continue.

These seven QMS species are:

- Elephant fish ELE
- Ghost shark GSH
- Mako shark MAK
- Pale ghost shark GSP
- Porbeagle shark POS
- Rig SPO
- School shark SCH

For these species, the weight of all fins landed must not exceed a specified percentage of the greenweight of the shark. For example, if the ratio for a particular species is set at 3.5, if sharks are landed that have a total greenweight of 100 kgs, the fins of that species landed cannot weigh more than 3.5 kgs. They may weigh less than that. The ratios will be applied to landings on a trip-by-trip basis.

The species which may have fins landed seperately, the specific ratios for each species, and the "primary fins" which have been used to set the ratios are defined in a *Shark Circular* which can be found at: **www.mpi.govt.nz**

Note that landing other fins may result in being over the gazetted ratio for a species.

How will the ratio work?

For species where you normally process the catch at sea and keep both a trunk (for example, dressed) and also the fins, not a lot should change, but you will need to **STORE AND LAND THE FINS SEPARATELY BY SPECIES**. Fins must be landed wet. This will be a legal requirement from 1 October 2014, and will allow monitoring to make sure you are not retaining any more shark fins than the trunks they come from.

Future reviews of ratios will be based on direct sampling over the coming years.

For the main inshore shark species, the ratios have been set so that if you follow normal processing practices, you shouldn't exceed the ratio with your landings of shark fins. The ratios for each species have been set based on statistical analysis of at-sea sampling data. However, you will need to monitor your landings more closely so you can be confident you aren't exceeding the weight ratio, especially as you become familiar with the new rules.

FOR MAKO AND PORBEAGLE, there are some differences in cut and which of the fins are retained across different fleets. **THE RATIO IS SET BASED ON RETAINING THE WHOLE TAIL (CAUDAL) FIN.** This has been done to try and avoid any accidental non-compliance (which could occur if the ratio was set lower), but you will still need to monitor your landings more closely to ensure you don't exceed it, especially if your vessel normally lands the whole tail. You can choose to land just the lower tail lobe. Close monitoring will occur to make sure no high-grading is occurring within the ratio.

Over the next two years, there will be ongoing monitoring and continued data collection to ensure that the ratios are set appropriately. Monitoring and enforcement will differentiate between slight variation around the ratios, which is to be expected, and a consistent trend of too many shark fins compared to shark bodies.

It is your responsibility to ensure you are within the ratio, but if you think the ratio is set incorrectly for a particular species, talk with MPI and/or a commercial stakeholder organisation such as Fisheries Inshore.

If you land any fins, you will need to report the actual weight of the fins for each species in the appropriate part of landing reports.

Retaining the fins from one shark and the trunk from a different shark (high grading) is an offence under the shark finning regulations.

FOR MORE INFORMATION

Fact sheet 1 – Conservation and management of New Zealand sharks

Fact sheet 2 – Landing sharks with fins attached

Fact sheet 4 – Requirements for returning sharks to the sea (Schedule 6)

A copy of the regulations is available at: **http://legislation.govt.nz**

Fisheries New Zealand

Tini a Tangaroa

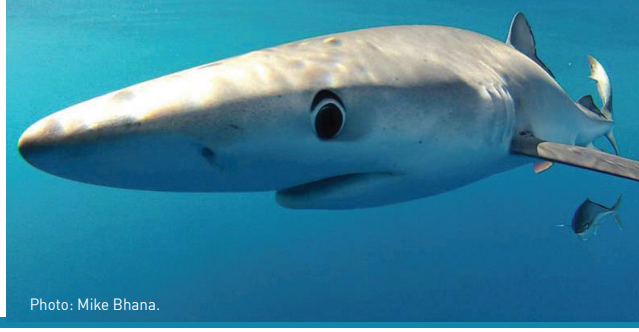


Photo: Mike Bhana.

Fact Sheet 4/4

Requirements for returning sharks to the sea (Schedule 6)

4

Schedule 6 of the Fisheries Act 1996 sets out QMS species that may be returned to the sea, so long as the specified conditions are met.

As part of the regulatory package to ban shark finning, MPI has made changes to Schedule 6 for several species of shark to allow them to be returned to the water. This provides a legal option for fishers who accidentally catch a shark for which they have no market.

In many cases, the best option is to try and avoid catching the sharks altogether if they are not marketable species. There may be different ways to avoid shark catches, depending on the species and the fishery. Some research is currently being done for surface longline fisheries.

Schedule 6 returns to the sea provide another option if you have already caught the shark. This fact sheet has been produced to explain the Schedule 6 provisions for shark species and detail the associated reporting requirements.

Live release only

The following species of sharks may only be returned to the sea **ALIVE**, if they are **LIKELY TO SURVIVE** and returned as soon as practicable:

- Rig SPO
- School shark SCH

Any returns of these species must be reported on disposal reports under disposal code "X" and will not be counted against your Annual Catch Entitlement (ACE).

Live or dead – pelagic sharks

For the following species:

- Mako shark MAK
- Porbeagle shark POS
- Blue shark BWS

Sharks may be returned to the sea **ALIVE**, if they are **LIKELY TO SURVIVE** and returned as soon as practicable. Any sharks returned to the sea **ALIVE** must be reported on disposal reports under disposal code "X" and will not be counted against ACE.

As of 1 October 2014, these sharks may also be returned to the sea if they are **DEAD** or **UNLIKELY TO SURVIVE** provided they are correctly reported. Any sharks returned to the sea dead or unlikely to survive must be reported on disposal reports under disposal code "Z". These returns will be counted against ACE. You need to accurately estimate the weight of the sharks discarded this way.

Live or dead – spiny dogfish

Spiny dogfish may be returned to the sea either live or dead. There is no differentiation between live and dead fish. Any spiny dogfish returned to the sea must be reported on disposal reports under disposal code "M" and will be counted against ACE.

FOR MORE INFORMATION

Fact sheet 1 – Conservation and management of New Zealand sharks

Fact sheet 2 – Landing sharks with fins attached

Fact sheet 3 – Landing shark fins subject to a ratio

A copy of the regulations is available at: **http://legislation.govt.nz**

Requirements for returning sharks to the sea (Schedule 6)

SUMMARY OF OPTIONS BY SPECIES OF SHARK

SPECIES		LIVE RETURN	Destination Code	Balanced with ACE	DEAD RETURN	Destination Code	Balanced with ACE
School shark	SCH	Yes	X	No	Only observer-authorised discards	J	Yes
Rig	SPO	Yes	X	No	Only observer-authorised discards	J	Yes
Mako shark	MAK	Yes	X	No	Yes	Z	Yes
Porbeagle shark	POS	Yes	X	No	Yes	Z	Yes
Blue shark	BWS	Yes	X	No	Yes	Z	Yes
Spiny dogfish	SPD	Yes	M	Yes	Yes	M	Yes

Sharks

THINK FIRST:
Safety Around Sharks

Treat all sharks as if they are alive, as even sharks which appear to be dead may suddenly lash out and cause injury.

Potential injuries from sharks include being struck, tripped or bitten.

Where possible, avoid working around the jaws of sharks. Put a solid object between a sharks jaws to prevent bites.

There are five protected species of shark in New Zealand waters, they can be accidentally captured in a range of fisheries.

When possible, release the shark from fishing gear without bringing it on deck. This minimises the risk of internal organ damage for the animal.

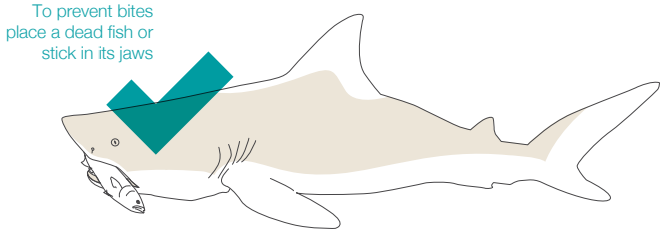
If sharks are landed on deck

- If it is large and active, let it tire before approaching.
- Treat all sharks as if they are alive.
- Once it is safe to do so, try to return the shark to sea head first and the right way up.
- 1-2 people may be required to handle a shark depending on the size.
- Always attempt to keep the shark in a horizontal position and on their side to reduce the risk of internal damage.

Treating sharks on deck

For line fisheries:

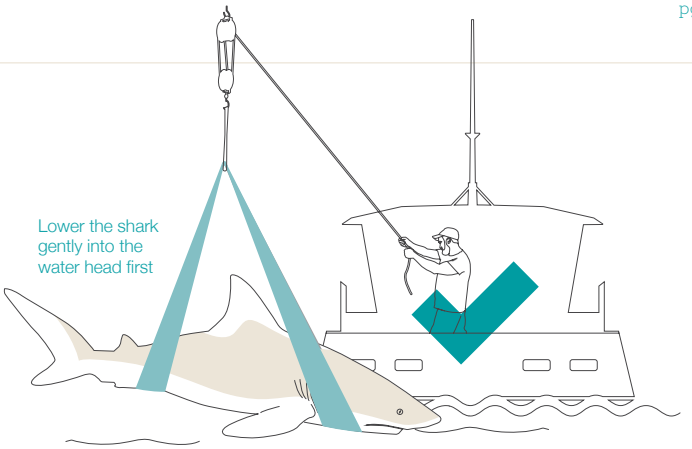
- Hold the shark firmly behind the head and around the tail using gloves and/or a wet towel, and then try to remove the hook.
- If the hook cannot be removed easily the line should be cut as close to the mouth as possible.
- To calm a shark down turn it over onto its back or place a wet towel over its eyes.
- If release needs to be delayed, place a deck hose in the shark's mouth so that water flows through the shark's gills.



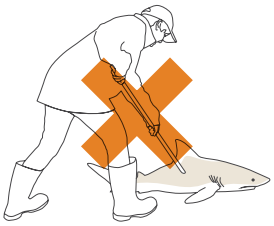
Sharks

Returning sharks to the water

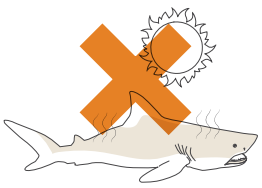
- Lower the shark gently into the water head first and release it. Do not throw it.
- It may be necessary to face the shark into the current and swim it for a few minutes to aid in recovery before it swims away.
- Small sharks can be released by one person.
- Large sharks may require two people to lift and hold the shark.
- Very large sharks may need to be lifted with the use of wide slings.
- Do not use thin wires or cables.
- Do not release sharks with ropes still attached.



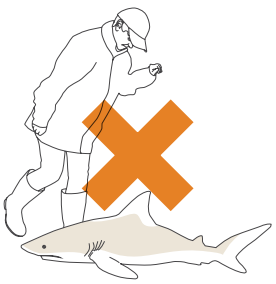
Incorrect handling



Do not use gaffs or sharp objects in direct contact with the shark. A gaff should be used only to control the line.

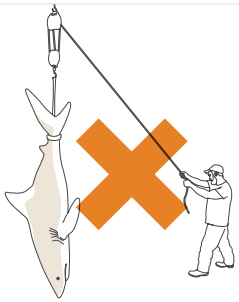


Do not leave the shark exposed to sunlight for extended periods of time.



Do not kick, hit, throw or push the shark harshly, or expose it to other physical trauma.

Do not cut off fins or other body parts to remove sharks entangled in gear.



Do not pick up the shark by the tail, head or the gill slits.

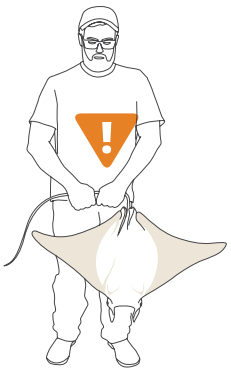
Rays

THINK FIRST:
Safety Around Rays

Potential injuries include being tripped, stings and cuts, and allergic reaction to protective mucous.

Where possible, avoid working around the tail as rays can strike in any direction.

Do not carry rays by the tail.

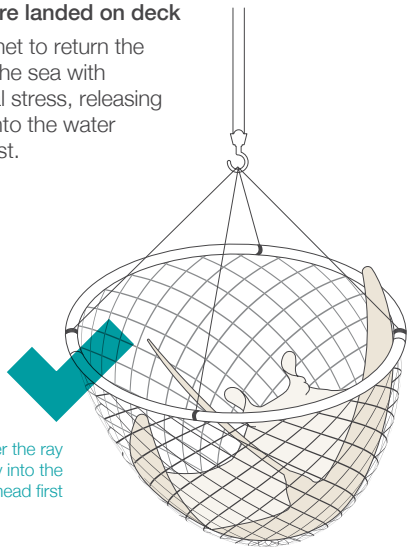


There are two protected ray species in New Zealand waters. Rays are caught in a range of fisheries, though they are most commonly bycaught in purse seine and surface longline fisheries.

Protected rays should if possible be released while the net is still in the water to avoid damage and stress.

If rays are landed on deck

- Use a net to return the ray to the sea with minimal stress, releasing them into the water headfirst.



Lower the ray gently into the water head first

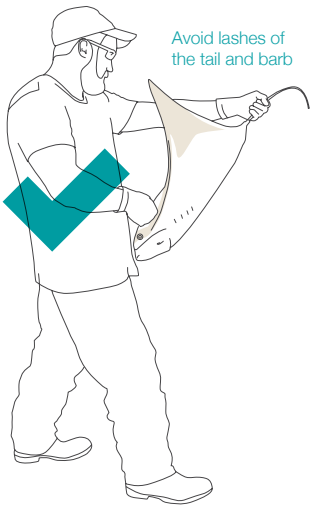
Treating live rays on deck

- Keep your fingers away from the mouth and hold the ray away from your body to avoid lashes of the tail and barb.
- For small rays isolate tail and lift by spiracle or snout.
- For medium size rays, isolate the tail and pick up by the snout or the spiracles (the openings behind the eyes).
- For large rays it is best to slide the animal along the deck to a discard chute or scupper. Always watch the tail as rays have the ability to strike in any direction.

Rays

Returning rays to the water

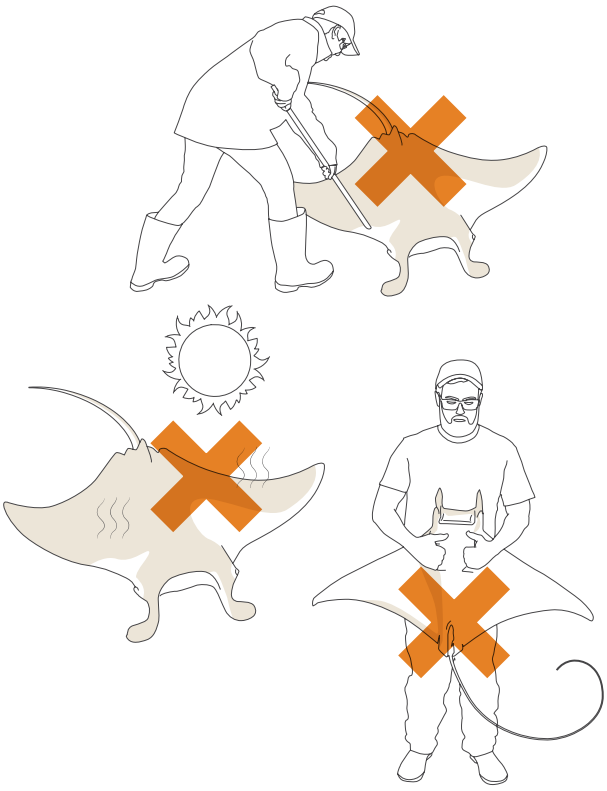
- Lower a small to mid size ray gently into the water head first and release it. Do not throw it.
- Large rays can be released by placing them on a piece of net, plastic, or canvas that can be lifted and lowered into the water.



Avoid lashes of the tail and barb

Incorrect handling

- Do not use gaffs or sharp objects in direct contact with the ray.
- Do not kick, hit, throw or push the ray harshly, or expose it to other physical trauma.
- Do not leave the ray exposed to sunlight for extended periods of time.
- Do not carry the ray by the tail to avoid being stung.
- Do not carry or move the ray by the gill slits.
- Do not cut off rays' tail or stings.
- Do not cut holes in rays' wings to put ropes or strops through for release.



Purse Seine Vessel: Observer PSRMP Audit

Fisheries New Zealand
Tini a Tangaroa

Trip number	Observer code	Vessel name	Trip start date	Trip end date
	.		/ /	/ /

Target species		FMA(s) fished		Number of sets observed	
Name of skipper(s)					

Record Yes (Y), No (N), Not Applicable (N/A) or Unknown (U) in the boxes provided. If you answer N or U to any questions, please make detailed comments on the reverse.

Documentation

Item 1 Was a copy of the vessel's Protected Species Risk Management Plan (PSRMP) readily available and in a place accessible to all crew and observer?

Item 2 Did the vessel carry a copy of the appropriate 10 Golden Rules and Operational Procedures on board that was made available upon request?

Item 3 Were the skipper and crew familiar with the contents of the:

(a) Protected Species Risk Management Plan?

(b) 10 Golden Rules?

(c) Operational Procedures?

Protected Species Interactions

Item 4 Were any protected species capture trigger points reached during the trip? *(If yes, please describe in the comments.)*

Item 5 After a trigger point was reached, did the crew alter any fishing practices or operations (e.g. move to a different fishing area)? *(If yes, please describe in the comments).*

Item 6 Did a gear or equipment failure contribute to the risk of protected species captures during the trip? *(If yes, please describe in the comments).*

Item 7 Were all protected species captures reported on the Non-Fish Protected Species Catch Return as required by fisheries reporting regulations?

Item 8 Were protected species caught alive, handled and released according to the DOC Handling and Release Guide?

Item 9 Where applicable, was a sling or brailer used for large bycaught protected species (e.g. spine-tailed devil rays)?

Fish waste management

Item 10 Was all fish waste/offal discharge managed as per the vessel's PSRMP?

Placement

Item 11 Was a crew member made responsible for determining the presence/absence of protected species throughout fishing operations and reporting that information to the skipper?

Item 12 Did the vessel avoid setting gear on any observed protected species (i.e. marine mammals, or protected sharks and rays)?

Other Mitigation

Item 13 Were any other mitigation methods or deterrents used? (If yes, please describe in the comments)

Deck landing/impact

Item 14 Were lighting practices managed in a way that avoids attracting or disorienting seabirds?

Please make a detailed comment for each item when required.

Item No:

Item No:

Item No:

Item No:

Item No:

Any further comments/observations: