Trawl - 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: All protected species captures are reported using the electronic NFPS Catch Report.

MS Alignment: ☐ 1.1, ☐ 1.2, ☐ 2.1, ☐ 2.2, ☐ 3.1, ☐ 3.2, ☐ 3.3, ☐ 3.4, ☐ 4.1, ☐ 4.2, ☐ 4.3

Additional Resources

Vessel's Practices – Health and Safety of crew comes first	
Discharge management	- Shooting and Hauling: No discharge immediately before or during - Towing: No continuous discharge, fish waste is held or batched at intervals *(select one or indicate if both)* - Storage & discharge point: *E.g. Stored in fish bins and dumped from stern while steaming* - All practicable stickers are removed from the net before each shot. - Gear and deck kept clean, scuppers controlled to contain fish waste during processing
Warp	- Warp mitigation device: *E.g. baffler, warp-deflector, tori line, etc* - Where: *E.g. on side closest to discharge* - When: *E.g. Always, unless there is no risk to seabirds as agreed with LO* - Warps not overly greased; sprags removed; splices wrapped and not near surface when towing - Synthetic warps: *E.g. red Dyneema*
Net	- Minimise time net is at/near surface to reduce risk of seabird interactions - Fishing gear/equipment is regularly inspected and maintained, and repairs occur while net is onboard or when low-risk to seabirds
High-risk periods/areas	- *E.g. avoid fishing around high seabird abundance or over full moon* - Avoid shooting amongst large numbers of protected species - Some high-risk periods/areas include: *(include areas and times discussed with LO)* - Areas avoided when using external lights at night: x
Acoustic deterrents	- *Number, make, model, intensity, spacing, battery change schedule, performance checks and indicate where/when in use*
Light management	- Lighting 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 - Laser: Y/N *(Identify type, intensity and when in use)*

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 INSHORE TRAWL FISHING TO SAVE PROTECTED SPECIES

1. **Ensure your vessel has on board the current inshore Trawl Operational Procedures (OP), a Protected Species Risk Management Plan (PSRMP), and a map of the current trawl prohibition areas, and that you and your crew are familiar with them.**

2. **While the net is in the water, either hold or batch discharge fish waste away from the path of the warps.**

3. **Always have a fit & proper bird scaring device onboard and deploy it anytime there is a risk to seabirds, i.e. when seabirds are present and when discharging fish waste near warps.**

4. **Ensure warps are not overly greased, all warp splices are wrapped and not near the water's surface, and that any sprags are removed or 'whipped'.**

5. **Minimise time trawl gear is at or near the surface. Whenever possible conduct gear maintenance/repairs while net is onboard.**

6. **Remove stickers from net before shooting, especially small fish and squid.**

7. **While ensuring safe operating standards, minimise and contain lighting so not to attract or disorientate seabirds, especially while sheltering, at anchor, or steaming past colonies.**

8. **Ensure you and your crew follow safe protected species handling procedures and protocols. Record and report bird band numbers to you Liaison Officer.**

9. **Report protected species captures by ERS. Remember it is not illegal to catch a protected species but it is illegal to not report it!**

10. **Notify your local Liaison Officer (same day) when protected species captures reach a Trigger point. Assess the event and, if possible, implement further risk reduction.**

For support phone your local Liaison Officer.

DOC CSP Protected Species Liaison ProgrammeTrawl10GRs (Version 5 Dec 2025)

SEAFOOD NEW ZEALAND

New Zealand Coastal Trawl Operational Procedures

Protected Species Risk Management

Version 4.0 December 2025

Disclaimer: *These Operational Procedures do not replace or override any fisheries legislation or other regulations, including but not limited to Health & Safety, Maritime Safety, Fisheries, Animal Welfare or the Wildlife Act. Vessel operators are required to ensure that both they and their crew understand all regulations and requirements that are relevant to the fisheries and environment that they are operating in, whilst always maintaining crew and vessel safety.*

1. PURPOSE

The purpose of the Operational Procedures (OPs) is to provide a structured approach to the mitigation of risk to protected species.

The New Zealand fishing fleets, both inshore and deepwater, experience some level of monitored capture.

Many protected species are of great importance to the wider community and have tourism value in some regions. All protected species have biodiversity value to New Zealand and varying levels of population and threat status, with government and relevant agencies monitoring and managing impacts on their populations.

There are legal frameworks and guidelines in place for specific protected species groups. Seafood New Zealand (SNZ) Operational Procedures (OPs) aim to summarise key information on risk and mitigation options for inshore fisheries.

The OPs align with the 'Mitigation Standards to Reduce the Incidental Captures of Seabirds in New Zealand Commercial Fisheries' (Toolbox of Measures) developed by the Department of Conservation (DOC) and Fisheries New Zealand (FNZ). These standards, based on international best practice and statutory requirements, provide bycatch mitigation options that are above and beyond minimum legal requirements.

The OPs sit alongside vessel-specific Protected Species Risk Management Plans (PSRMPs). The PSRMPs document each vessel's individual approach to minimising risk to protected species and how they implement the OPs, legal requirements, and mitigation standards.

Fishers are legally required to reduce any undue impact on protected species and report all interactions with protected species using an electronic Non-Fish Protected Species (NFPS) capture form.

Remember it is not illegal to catch a protected species however it is illegal not to report it.

The ultimate mitigation practice is to **LOOK – THINK – ACT**

2. LEGLISLATION AND GUIDING POLICY DOCUMENTS

The Wildlife Act and Marine Mammals Protection Act

The Department of Conservation (DOC) are responsible for the Wildlife Act 1953 and Marine Mammals Protection Act 1972. The Acts protect various species, and it is an offence to hunt, kill, take, disturb, possess, buy, sell or destroy any protected species or any part of one without a permit. For some species (e.g. Antipodean albatrosses, Hector's dolphins) you may receive an authorisation from DOC to retain these for analysis ashore.

It's not an offence to accidentally catch any of these species if they are released immediately and the capture is reported accurately as soon as possible to DOC and MPI, via your electronic logbook.

Crew must observe safe handling practices for themselves and protected species when dealing with captured animals. Handle animals with care to minimise any further stress, harm or injury, and to maximise the chances of post-release survival. Refer to the DOC Handling and Release Guide for further diagrams and instructions.

The Fisheries Act

The Fisheries Act 1996 regulates fishing and is administered by Fisheries New Zealand (FNZ). They produce the mitigation and reporting circulars which describe the legal requirements. See the Reporting Requirements (Section 3) and Mitigation Measures (Section 8) of this OP for more information.

Beyond this, FNZ have only reasonably blunt tools to regulate impacts on protected species – for example closed areas/seasons and setting fisheries related mortality limits (FRMLs). The goal of this OP and the support you receive from DOC Liaison Officers and Seafood New Zealand aims to keep captures sufficiently low to avoid such measures.

Department of Conservation, Conservation Services Programme (CSP)

There are provisions under the Fisheries Act 1996 for both fisheries services (which largely sit with FNZ) and conservation services (which largely sit with DOC). Conservation services are outputs produced to mitigate the adverse effects of commercial fishing on protected species, as agreed between the Minister for Conservation and the Director-General of the Department of Conservation. Following consultation, industry is levied to provide services to undertake research relating to the effects of fishing on protected species and research into measures to mitigate the adverse effects of commercial fishing on protected species.

The DOC Liaison Programme is one such output enabled through CSP, and Liaison Officers are your primary contact to utilise for mitigation advice and protected species capture responses.

National Plan of Action - Seabirds

The National Plan of Action – Seabirds (NPOA) is part of an international management framework that guides seabird risk management. It is a requirement of the Agreement on the Conservation of Albatrosses and Petrels (ACAP) of which New Zealand is a signatory. It is also linked to United Nations Food and Agriculture Organisation (FAO) processes and guidelines.

The NPOA guides assessment and management of risk to seabirds in New Zealand fisheries. This management comes mostly from Fisheries New Zealand (FNZ) and Department of Conservation (DOC) with support from fishing industry bodies such as Seafood New Zealand (SNZ).

The Risk Assessment referred to in the NPOA assesses the impact of potential fisheries mortalities on 70 of the seabird species that breed in New Zealand. Risk for each seabird species is estimated as the ratio between the estimated annual deaths from fishing and the number that the population can withstand. The risk ratios are assessed on a fishery-by-fishery basis where data is sufficient to allow this.

A key NPOA objective is to move seabird species to lower risk categories, so the populations are not threatened, and a long-term objective is to have negligible impact on all 70 seabird populations.

DOC and FNZ have published mitigation standards which specify ‘best practice’ seabird bycatch mitigation methods for each fleet to support the NPOA.

Species specific approaches

Species specific approaches are in place for some particularly at-risk species including hoiho (yellow-eyed penguin) which are managed in line with the Te Kaweka Takohaka mō te Hoiho. This is a high-level strategy which aims to restore hoiho populations in the face of pressures from human activities.

More detailed threat management plans are in place for New Zealand sealions and Hector’s dolphins which are managed with area specific fisheries related mortality limits (FRMLs).

Te Mana O Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020

The Government also administers the Biodiversity Strategy which includes the objective (12.2.1):

The number of fishing-related deaths of protected marine species is decreasing towards zero for all species.

3. REPORTING REQUIREMENTS

All protected species captures must be reported. Protected species are considered caught if they have become fixed, entangled, or trapped in such a way that they cannot move freely or free themselves. Deck strikes must also be reported and are defined as: where a bird collides with, or lands on a vessel or its superstructure, and is unable to leave the vessel of its own accord because it is injured or disoriented.

Instructions for completing E-logbooks, including species codes can be found here:

https://www.mpi.govt.nz/dmsdocument/70593-Fisheries-E-logbook-Users-Instructions-and-Codes-Circular-2025

If you are 100% sure of the identification of a protected species you have captured, use the individual species codes supplied by FNZ and available in the identification guides supplied by your Liaison Officer. If you are not 100% sure of the species identification, take a photo and send it to your Liaison Officer who may help you identify the protected species. You can use a more general group code if you are unsure (e.g. XMA - 'Smaller albatross – unidentified').

Seabirds

All seabirds, except black-backed gulls, are protected.

DO NOT USE CODE XAL (unidentified albatross). If you use this code, your Liaison Officer will be in touch to confirm ID. Please take photos and confirm with LO if you are uncertain.

Albatrosses should, as a minimum, be split into **XGA – Great albatrosses** (wandering and royals) and **XMA – Smaller albatrosses** (mollymawks). Split mollymawks to species level if you are confident – this just takes a bit of practice.

Record any leg band numbers, take a photo and send it to your LO. These are important for scientific assessment purposes.

If dead birds have a recorder attached remove this and inform your Liaison Officer

For dead birds show them to the camera including views of the head (side on), feet, upper and lower side of wings. This is important for identification confirmation.

Marine Mammals

All marine mammals are protected including NZ fur seal, NZ sea lion, dolphins and whales. Please make sure your crew are aware of the differences between seals and sea lions and are checking all individuals as juveniles can be misidentified.

Fur seals have a pointy nose, long whiskers and a thick double layer of fur. The maximum size is 2.5 m and 150 kg (females 1.5 m, 50 kg) use code **FUR**

Sea lions have a flat nose, shorter whiskers, and 'velvety' fur. The maximum size is 3.5 m and 400 kg (females are smaller and lighter in colour 2.0 m, 160 kg) use code **HSL**

SEA is the general code for seals and sealions. If you use this code, your Liaison Officer will be in touch to confirm ID. Please take photos and confirm with your LO if you are uncertain.

Any dead marine mammals should preferably be marked before returning them to the sea, with twine or cable ties around the jaw. This avoids them being double counted if recaptured in a trawl.

Marine Reptiles

All marine reptiles, including sea turtles, sea snakes, and kraits are protected.

Three species of sea snake are present in New Zealand, and all are protected. The group code is **SSN** but they are relatively easily identifiable to species based on colour.

Although turtles breed in the tropics and subtropics, there are five species that are seen in New Zealand waters, with green and leatherback being the most common**.**

Leatherback Turtles **(LBT)** are easy to identify due to their size and ridged leathery looking back.

Hard-shelled turtles will be harder to split to species level – use the identification guides and the following codes:

- Green turtle **GNT**
- Hawksbill turtle **HBT**
- Loggerhead turtle **LHT**
- LHT Olive Ridley turtle **ORT**

The group code for turtles is **TLE.** If you use this code, your Liaison Officer will be in touch to confirm ID. Please take photos and confirm with your LO if you are uncertain.

Protected Fish

There are two bony fish species that are protected species:

- Giant grouper **GGP**
- Spotted black grouper **SBG**

Similar to seabirds, NZ's shark species are managed under a 'NPOA -Sharks' that documents the planned actions for conservation and management of those species. Several sharks and ray species are protected under NZ legislation including:

- Oceanic whitetip shark **OWS**
- Basking shark **BSK**
- Deepwater nurse shark **ODO**
- White pointer shark **WPS**
- Whale shark **WSH**
- Manta ray **RMB**
- Spinetail devil ray **MJA**

Benthic Species

A number of benthic species (things that live on the seafloor) are protected, including:

- Black corals **COB**
- Gorgonian corals **GOC**
- Stony corals **SIA**
- Hydrocorals **COR**

In addition to corals, it is a requirement under the Fisheries Act to report captures of sponges and bryozoans and record the weight of each species. These must be reported with a weight, whether they are alive or dead. For weights above a kilogram round to the nearest kilogram and use the following codes:

- Unidentified corals use **COU**
- Bryozoans use **COZ**
- Sponges use **ONG**

Identification can be difficult - if you are unsure use **CSB** which covers all three groups. However, if you use this code, your Liaison Officer will be in touch to confirm ID as not all corals are protected. Please take photos and confirm with your LO if you are uncertain.

Handling and release guide

Species ID guides

DOC Liaison Programme

4. NON-FISH PROTECTED SPECIES IDENTIFICATION AND HANDLING RESOURCES

- DOC protected species identification guides are available at: https://www.doc.govt.nz/our-work/conservation-services-programme/csp-resources-for-fishers/protected-species-identification-guides/
- A detailed set of invertebrate NFPS material is available at: https://fs.fish.govt.nz/Doc/23020/AEBR_86.pdf.ashx
- Earth Sciences NZ invertebrate guides are available at: https://niwa.co.nz/oceans/identification-guides
- Handling and Release Guide – For protected species interactions within New Zealand fisheries: https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/marine-conservation-services/resources/protected-species-handling-guide-2022.pdf

Fishers can request hard copies of these documents in both English and Indonesian to keep onboard, via their Liaison Officer.

5. PROTECTED SPECIES RISK MANAGEMENT PLANS (PSRMPs)

Your Liaison Officer will help with the development of your Protected Species Risk Management Plan (PSRMP). This will detail your vessel's specific approach to mitigating protected species interactions. It will summarise the legal requirements and also include a comprehensive list of non-regulated measures that reduce risk.

This is your plan – ensure that it accurately represents what is happening on your vessel.

Do not write anything into the PSRMP that you do not intend on doing.

Trigger points are included in your PSRMP to help you proactively manage NFPS interactions and tell you when to act – they are our real time reporting "threshold" system and first line of defense to escalating risks on the water.

The goal of a trigger point is to trigger a response by the skipper - to stop and think about the capture and how to avoid it happening again.

If you hit a trigger, you need to think very carefully before shooting again and aim to change something to reduce the chances of it happening again.

Report all trigger points to your Liaison Officer within 24 hours so that any follow-up can be discussed and carried out immediately.

When a trigger point is reached, the Liaison Officer and the operator/owner and skipper (noting these might be the same person at times) will work together to review the situation.

If interactions continue to escalate, or the interaction is a species of concern, the Liaison Officer, your licensed fish receiver, and Seafood NZ can support the response and ensure fleet-wide communication of high-risk times and areas.

Audit and review

The Government will audit the implementation of your PSRMP via Electronic Monitoring and port-based visits. Information collected will be provided to DOC, FNZ and the Liaison Officer.

If your NFPS interactions are continuous or significant, either the plan needs updating or practices onboard need to be improved. Your Liaison Officer can work this through with you and update your plan if necessary.

Your PSRMP may also need updating at other times. For example, 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.

Camera footage will be reviewed for all protected species interactions.

6. RESPONSIBILITIES

Operator and Skipper Responsibilities

- Ensure all crew are briefed on the OP and the vessel's PSRMP and fully understand their responsibilities.
- Display a copy of the PSRMP on the bridge.
- Manage fishing operations in time and place based on experience and the information provided in this OP to minimise overlap with protected species.
- Be aware of protected species activity around the vessel and in the area; take actions to minimise risk. (See Section 8)
- Ensure correct protected species reporting to FNZ and DOC. (See Section 3)
- Ensure the Liaison Programme trigger points are reported promptly to your local Liaison Officer and work with them to review the effectiveness and implementation of content in the PSRMP. (See Section 5)
- Reach out if you need support, including for protected species ID.

Crew Responsibilities

- Know the PSRMP contents – this is your approach to minimising risk.
- Maintain a watch of seabird and marine mammal activity around the vessel and advise the skipper when there is risk that requires action.
- Advise skipper if any animal is seen caught and ensure its immediate release if alive.
- Check and maintain any mitigation equipment (e.g. Hookpods, tori lines, bafflers).

7. MITIGATION MEASURES

Legal requirements

There are a number of restrictions on trawling which can be found under the general Fisheries Regulations:

https://www.legislation.govt.nz/regulation/public/2001/0253/latest/whole.html.

Trawl restrictions in place for Hector's and Maui dolphins are appended to this OP

Fishers should also check with the Liaison Officer or Seafood NZ for any voluntary measures that have been adopted by region, these will be appended to this OP.

Protected Species Risk Management Plans (PSRMP)

Your Liaison Officer will help with the development of your Protected Species Risk Management Plan (PSRMP). This will detail your vessel's specific approach to mitigating protected species interactions. It will be updated regularly and include a comprehensive list of measures that reduce risk.

This is your plan – ensure that it accurately represents what is happening on your vessel.

Important mitigation measures beyond those in the regulations that should form part of your plan include:

- Offal and discards management and control
- Warp mitigation
- Minimising the amount of time nets are at the surface
- Shooting only clean nets
- Use of acoustic devices
- Light control, including when at anchor and steaming
- How you choose where and when to fish to minimise risk

8. RISK MANAGEMENT

Vessel operators need to be aware of all factors of your operation that can influence the risk posed to protected species.

RISK ITEM	RISK FOR	WAYS TO MANAGE RISK
Warp Capture	Seabirds (mostly albatross)	• Stopping or controlling (batching) offal/waste discharge while warps are in the water will greatly reduce or even eliminate interactions - **this is the PRIMARY risk reducing measure** • Fitting mitigation devices (tori lines, bafflers, deflectors or scarers) that are well designed and appropriately implemented will keep seabirds away from the warp danger area • Ensuring warp splices are 'wrapped', and any sprags removed and 'whipped' • Using Dyneema warps may reduce risk
Net Captures	Seabirds (mostly petrels, shearwaters, shags and penguins) Marine mammals Marine reptiles	• Net captures occur during both shooting and hauling of the net. Therefore, it is important that the **vessel prevents offal discharges both before and during hauling and shooting.** • Minimising the amount of time the net is on the surface will also reduce this risk. So, getting the gear to fishing depth and later aboard quickly is important. Avoid trailing the gear in the water while mending. • Minimise 'openess' of net when shooting and hauling • Avoiding setting the net when large numbers of birds or mammals are present • Ensuring that the net is clean of stickers and other food attractants when being set • Acoustic devices
Deck Strike	Seabirds	• Minimise light spill, especially at anchor and when steaming close to colonies • Keep deck clean

MAIN SPECIES AT RISK – SOUTH ISLAND

Seabirds at Risk	Species Code	Main Risk Area	Place, Time, Risk Profile
Buller's albatross	**XPB**	Particularly east coast	• Southern species nests on the Snares and forages on both coasts • Particularly vulnerable to warp strike
Salvin's albatross	**XSA**	Particularly east coast	• Summer breeders on the Bounty and Snares Islands • Forages on both coasts, further north on the East Coast than white-caps • Particularly vulnerable to warp strike
White-capped albatross	**XWM**	All areas	• Summer breeder on Auckland Islands • Forages on both coast, closer inshore than Salvin's • Particularly vulnerable to warp strike
Foveaux Shag and Otago Shag (previously Stewart Island Shag)	**XHG**	Foveaux Strait, Stewart Island, Otago	• Present Oamaru south to Stewart Island, have been identified as far north as Banks Peninsula • Fly in flocks to or from feeding grounds and forage up to 10km offshore • Seabed forager (down to 30m) also forage in murky water
King Shag	**XHG**	Marlborough Sounds and western D'Urville	• About 85% of all existing birds are located at five colonies: Rahuinui Island, Duffers Reef, Trio Islands, Sentinel Rock, and White Rocks • Forage up to 25km from their colony • Seabed forager (down to 50m) during daylight hours
Spotted shags	**XPP**	All areas	• Summer breeders, ranging further from colonies outside of breeding season • Can raft and feed in large numbers • Hot spots –Banks Peninsula, Otago
Sooty shearwater	**XSH**	East coast	• Can feed very aggressively pre- and post-breeding (Spring and Autumn) • Strong diver and aggressive feeder around vessels at times • Vulnerable to net capture, including when towing in shallow water
Westland petrel	**XWP**	West coast	• Winter breeders at Punakaiki, small population • Good divers, and boat followers
White-chinned petrel	**XWC**	More so East coast	• Summer breeder on subantarctic islands • Good diver

Hector's dolphin	**HDO**	East and West coasts	• Most abundant off the ECSI and WCSI but also found on the north coast (Golden/Tasman Bay and Marlborough Sounds) and south coast (Te Waewae Bay) • Patchy distribution, often in dirty shallow water and off river mouths but can extend range 20nm offshore • Thought to range further offshore at night • Use sonar to detect prey, but not 100% of the time – making them susceptible to captures • NCSI, ECSI and SCSI: Closures regulated as of June 2020. See supplemental material for maps • Subject to Fishery Related Mortality Limits, by area
Dusky dolphin	**DDO**	All areas,	• Found all around the coastline of New Zealand
NZ Sea Lion	**HSL**	Otago to Stewart Island	• Re-establishing on Mainland NZ • Present year-round in southern coastal waters
NZ Fur Seal	**FUR**	All areas	• Present year-round on entire NZ coastline, mainly rocky shores • Main SI colonies in Kaikoura, D'Urville Island Separation Point, Cape Foulwind, Banks Peninsula, Otago, Stewart Island, Ruapuke, Fiordland, the Solander Islands
Great white shark (White pointer)	**WPS**	Particularly Stewart Island and Foveaux Strait	• Most common over summer, particularly Nov-Mar • Trans-Tasman population (range between NZ, Australia and the South Pacific islands – highly migratory species

MAIN SPECIES AT RISK – NORTH ISLAND

Species	Species Code	Main Risk Area	Place, Time, Risk Profile
Black petrel	**XBP**	East coast	• Summer breeder on Great and Little Barrier (migrate to S. America) • Aggressive feeding on arrival into NZ and before departure • Naturally forages offshore at shelf break but follows boats inshore • Good diver
Flesh-footed shearwater	**XFS**	East coast	• Summer breeder on several Islands on East Coast to Marlborough Sounds and Sugarloaf Islands off Taranaki (migrate to N. Pacific). • Aggressive feeding on arrival into NZ and before departure • More inshore distribution than black petrel • Even better diver than black petrel
Buller's albatross	**XPB**	All areas	• Southern species nests on the Snares and forages on both coasts • Particularly vulnerable to warp strike
Salvin's albatross	**XSA**	All areas	• Summer breeders on the Bounty and Snares Islands • Forages on both coasts, further north on the East Coast than white-caps • Particularly vulnerable to warp strike
White-capped albatross	**XWM**	All areas	• Summer breeder on Auckland Islands • Forages on both coast, closer inshore than Salvin's • Particularly vulnerable to warp strike
Dusky dolphin	**DDO**	All areas	• Found all around the coastline of New Zealand, but more so on the east coast North Island
NZ Fur Seal	**FUR**	All areas	• Present year-round on entire NZ coastline, mainly rocky shores • Main NI colonies
Great white (White pointer)	**WPS**	North east coast	• Most common over summer, particularly Nov-Mar • Trans-Tasman population (range between NZ, Australia and the South Pacific islands – highly migratory species

Fisheries New Zealand
Tini a Tangaroa

Department of Conservation
Te Papa Atawhai

Seabird Bycatch Mitigation Standards Guide
Under 28m Trawl

What Are Seabird Bycatch Mitigation Standards?

August 2021

The seabird bycatch Mitigation Standards were developed alongside the NPOA Seabirds 2020. They document the 'best practice' mitigation methods for reducing the risk of seabird captures in New Zealand commercial fisheries. It is expected that by 2025 each vessel will have a Protected Species Risk Management Plan (PSRMP) that is tailored to their operational needs and works towards achieving the best bycatch mitigation options available.

These Mitigation Standards do not replace or override any fisheries regulations, or legislation on workplace health and safety, maritime safety, or other relevant subject.

'Best Practice' Mitigation Methods

1. Control the discharge of fish waste

- No discharging of fish waste immediately before or during shooting or hauling.
- During the tow, only discharge fish waste if it is batch discharged.
- Document a plan for fish waste discharge should there be any equipment failures. Keep a copy on board.
- Whilst still allowing the free movement and egress of water, maintain a secondary system that prevents uncontrolled fish waste discharge (*i.e.* equipment to minimise fish waste lost to factory floor or deck, grating and/or trap systems in fish sorting and gutting areas that lead overboard).

2. Protecting seabirds from trawl warps

- While discharging fish waste, have a seabird scaring device on/near the warp nearest to the side discharging.
- Ensure the seabird scaring device is well maintained, with spare parts onboard.
- Ensure warps are well maintained (*i.e*. not overly greased, splices 'wrapped', sprags removed or 'whipped', and splices are not near the water's surface).
- Seabird scaring devices do not need to be deployed if the vessel is operating at a time and place that the operator and Liaison Officer agree poses no risk to seabirds.

3. Minimise any attractions or access to the trawl net itself

- All practicable stickers are removed from the net before each shot.
- Minimise the time the net is at or near the surface of the water. Shoot and haul as quickly as practicable.
- Regularly inspect and maintain gear and equipment to reduce the risk of gear failure.
- Where possible, conduct maintenance during periods of low risk to seabirds and with the net on board.

4. Minimise deck landings or vessel impacts by seabirds

- Keep additional and unnecessary deck lighting to a minimum so as not to attract or disorientate seabirds, especially while sheltering or at anchor.
- Keep gear and deck clean of any remaining fish waste where possible.
- Ensure crew are familiar with safe seabird handling procedures (see DOC Handling and Release Guide).

For More Information

Contact your Liaison Officer for any questions you may have. They will be working with you to try and achieve these Mitigation Standards. The full document is available on the MPI website.

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.

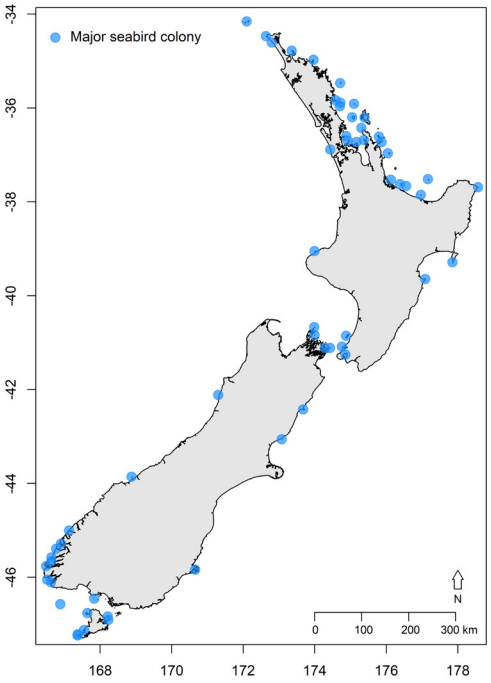
What can you do to help seabirds?

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

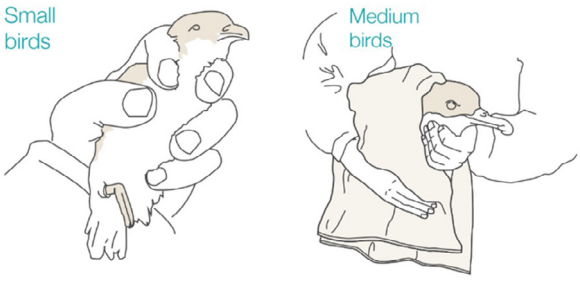

Black-bellied Storm Petrel


Common Diving Petrel

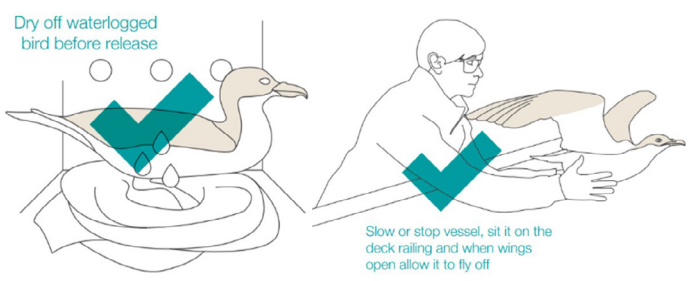
Shearwaters and petrels (including diving petrels, storm petrels and prions) are particularly susceptible to vessel strikes. *Photos: Oscar Thomas*

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

Identifying New Zealand Mollymawks

SMALLER ALBATROSSES

The *Thalassarche* albatrosses, sometimes known as mollymawks, are considerably smaller than the great albatrosses. The following guide is to help you identify any mollymawks you may encounter.

Average wingspan of Great albatrosses
350 cm

Average wingspan of Mollymawks
220 cm

Department of Conservation
Te Papa Atawhai

Blue/grey bill with yellow tip

New Zealand white-capped albatross

XWM

Distinguishing characteristics

- Larger-sized
- White head

Wingspan

180 – 256 cm

Yellow/grey bill with dark tip

Salvin's albatross

XSA

Distinguishing characteristics

- Larger-sized
- Mid-grey head and white crown

Wingspan

256 cm

Chrome yellow bill with dark tip

Chatham Island albatross

XCI

Distinguishing characteristics

- Medium-sized
- Darker grey head
- Most common around the Chatham Rise

Wingspan

220 cm

Image: © M. P. Pierre

Image: © M. P. Pierre

Image: Scott Brooks

Yellow/orange bill (XKM)

Campbell albatross

XCM

Distinguishing characteristics

- Larger-sized
- White head with black eyebrows
- More common in summer

Wingspan

250 cm


Image: Tui De Roy, Roving Tortoise Photos

Southern black-browed albatross

XSM

Distinguishing characteristics

- Larger-sized
- White head with black patch around eye
- More common in winter

Wingspan

210 – 250 cm

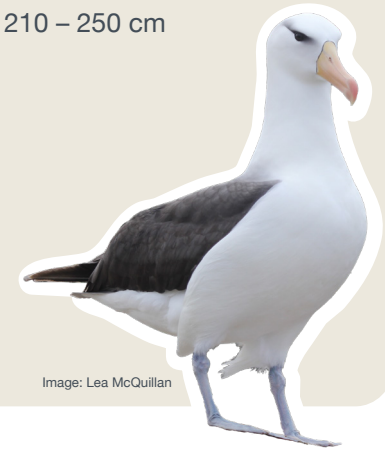


Image: Lea McQuillan

Black and yellow bill

Southern and Northern Buller's (Pacific) albatross

XPB

Distinguishing characteristics

- Medium-sized
- Grey head and neck with white-ish crown

Wingspan

213 cm


Image: Harold Stiver

Grey-headed albatross

XGM

Distinguishing characteristics

- Medium-sized
- Grey head and neck

Wingspan

220 cm


Image: © Ric Else

Dark bill with pale blue stripe

Light-mantled sooty albatross

XLM

Distinguishing characteristics

- Medium-sized
- Dark brown body and head with greyish neck and back
- White eye ring

Wingspan

220 cm


Image: Ian Parker

Fisheries New Zealand
Tini a Tangaroa

Protected Species Information for Commercial Fishers

Toanui/Flesh-footed Shearwater

Where are flesh-footed shearwaters?

Breeding location: Toanui/Flesh-footed shearwaters breed on islands off the coast of north of New Zealand and in the Marlborough Sounds, Australia, and on St Pauls Island in the Indian Ocean. Mauima/Lady Alice Island, Northland Ohinau Island, Coromandel and Titi Island, Marlborough also carry large colonies.

Breeding time: Toanui/Flesh footed-shearwaters breed from September to May. When they are not breeding, they migrate to the Northern Hemisphere to forage around Japan, India, and North America.

Foraging distribution: Toanui/Flesh-footed shearwaters forage and feed in the entire inshore area of the North Island and the upper South island, with concentrations found closer to where they breed. Offshore they extend and are found on the East and West of the North Island. They are active at the day and night during their breeding season, with most feeding occurring during the day.

How to recognise flesh-footed shearwaters

Toanui/Flesh-footed shearwaters are approximately 45cm long and are dark brown. They have a light pink coloured bill and white-flesh coloured legs and feet.

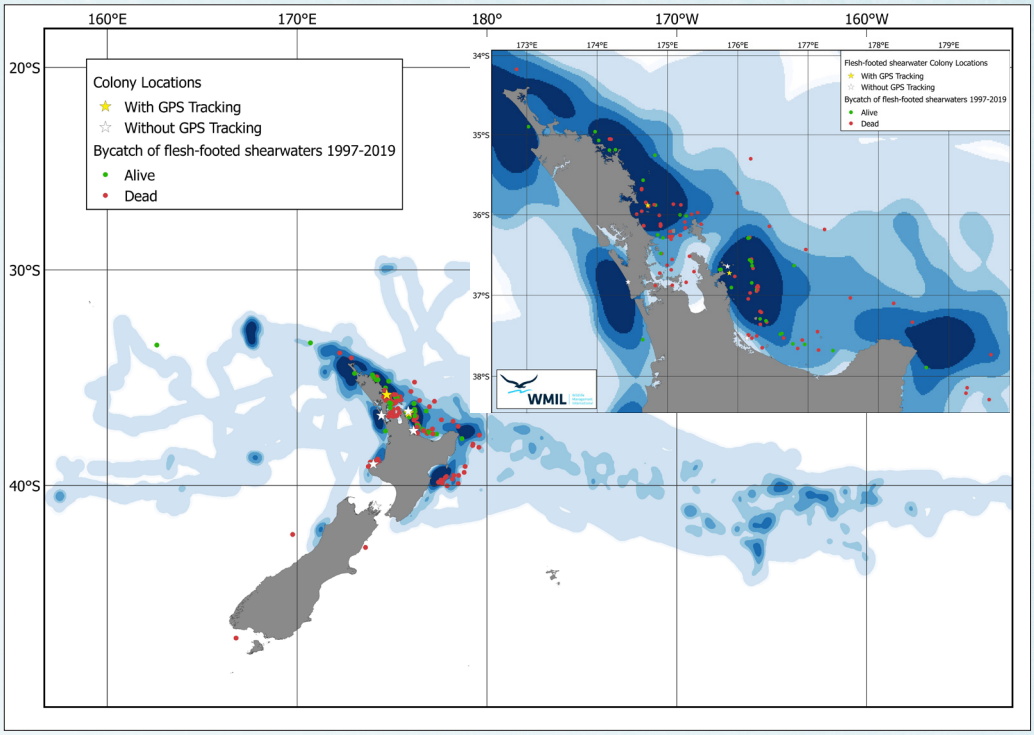
Distribution Map:

The distribution map shows where flesh-footed shearwaters are more likely to be found during the breeding season and where bycatch has occurred.

The dark blue areas indicate where numbers are most concentrated (hot spots) for foraging and feeding. These areas are also where most captures have been reported.

This data was accumulated from 1997 to 2019 breeding seasons.

It is not illegal to capture seabirds. IT IS ILLEGAL not to report captures of seabirds.



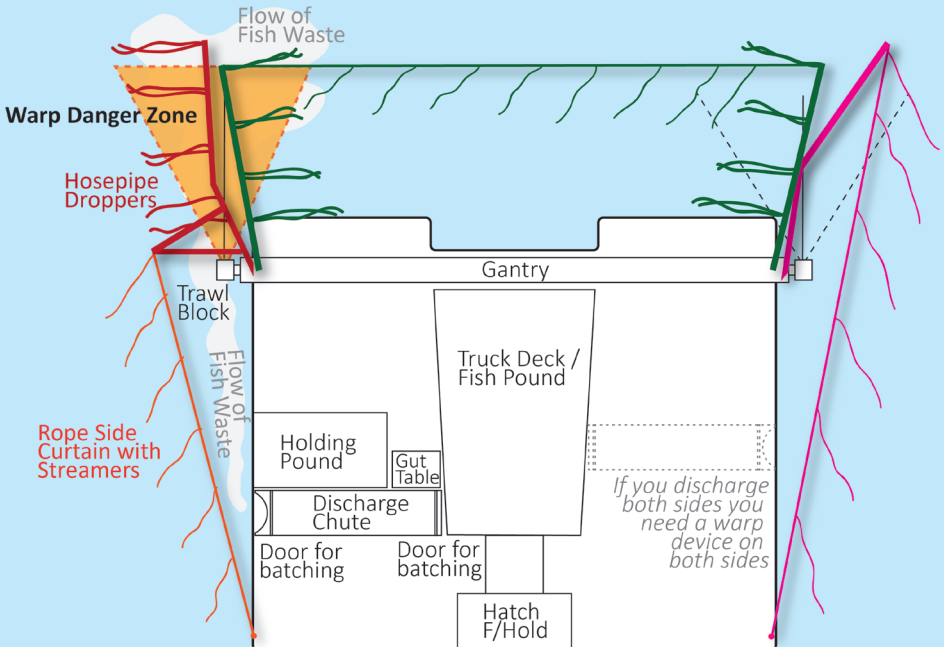
For more information on what to do when you have caught a bird, please refer to your Operational Procedures for Protected Species Risk Management document.

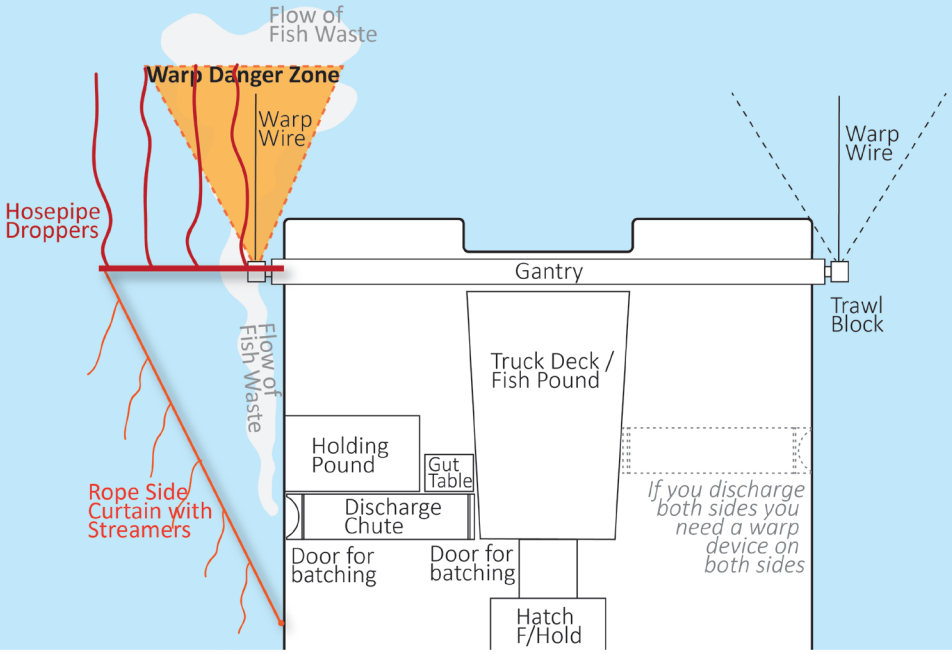
Design Guide for Large Coastal Trawlers: **Warp Mitigation Options**

Option 1: Single Side Aft Baffler & Side Curtain

Option 2: Single Side Pole with Full Curtain

Option 3: Two Boom Baffler and Aft Curtain

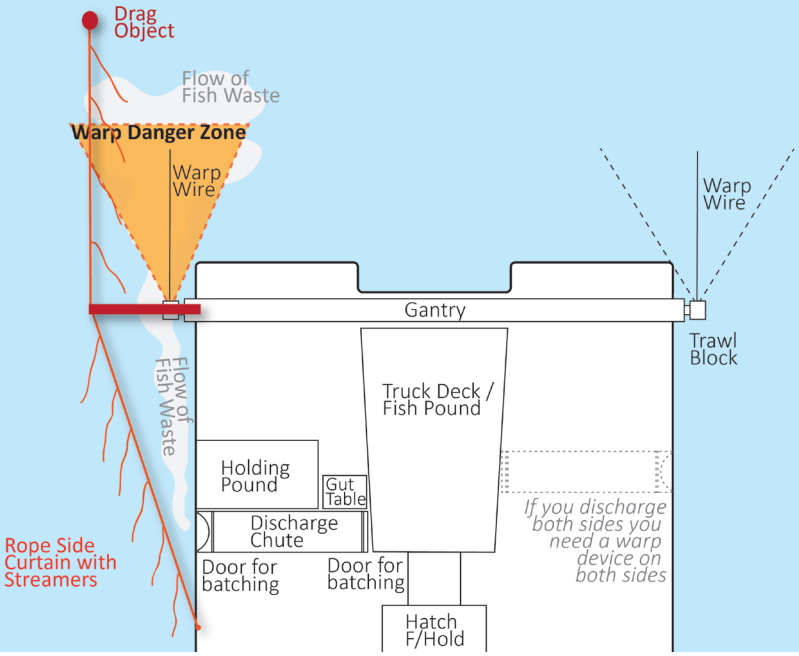




Option 4: Single Side Baffler with Side Curtain

(long hose droppers trailing back into the warp danger zone)

Option 5: Single Side Pole with Tori Line & Side Curtain



Design and Build: **Guiding Principles**

Larger South Island coastal trawlers increasingly operate in areas overlapping with a large number of albatross. They have high catch volumes and some onboard processing; coupled with the need to discharge fish waste more often and while trawling is taking place. The fish waste flows back into the path of the warp, increasing the risk of albatross warp captures.

FINZ and Southern Inshore support the need by this class of larger vessel to have improved fish waste management procedures and a suitable warp mitigation device, which ideally would be a 'set and forget' device that is deployed consistently while fishing.

Fish Waste Control: (No continuous discharge of fish waste when towing) Have equipment to 'hold & batch' fish waste to be discharged at intervals (deck pound, bin, chute or tank) with capacity to hold all fish waste for minimum 20/30 mins the discharge needs ability to be closed off and when capacity reached, opened to allow a 'batch-discharge' during hauling and shooting. Return those fish required to be returned to the sea while still alive in a manner to reduce the risk of warp captures.

Warp Mitigation: A suitable boom/pole or structure to support hose-pipe droppers to restrict seabird access into the warp-zone and a side curtain along the discharge side to restrict access to the discharge chute-point. (*If discharging regularly from both-sides, you need two devices*)

These design-guide examples (*or an approved type-hybrid of these*) are a starting point to construct something that *works* for your vessel design and fishing operations.

- **Aft baffler/pole / 3 Options:** extending far enough back (est. 3m to 5m+ astern, this is vessel dependant) to provide coverage over most of the area where the warp meets the water surface, *3 different versions/examples of this shown (over page*)

    - **Option 1:** Single side aft baffler & side curtain; (baffler with hose-droppers over warp area and separate side curtain providing coverage over fish waste flow down the hull to the discharge chute-point

    - **Option 2:** Single side aft pole; angled-back over warp area and outboard with full large single curtain from the end of the pole providing coverage over fish waste flow down the hull to the discharge chute-point

    - **Option 3:** Two aft boom-bafflers and aft curtain, which extends over/outside each warp with hose-pipe droppers on each pole and aft curtain between poles with streamers to provide aerial coverage across both warp danger zones

The aft boom-device/s is expected to be very effective but requires more complex design and engineering requirements (this design may only suit some of the largest vessels)

- **Option 4. A single side baffler/pole**, should extend at least 2m -2.5m outboard of the trawl block

    - Positioned close to (or over) the trawl block with 'hope-pipe droppers' that hang down and trail-back into warp zone. A side curtain with streamers extends from the pole running forward alongside the vessel to provide coverage over discharge point

- **Option 5. A single side pole with tori line,** should extend at least 1.5/2.0m outboard of the trawl block
    - Support the attachment for a tori line which should be a minimum of twice length of the warp behind the vessel. A side curtain with streamers extends from the pole running forward alongside the vessel to provide coverage over discharge point

- Droppers and or streamers should be spaced at intervals approx. 70cm apart

Fish waste discharge management is the key: less often you discharge, and less you discharge into path of the warp, less likely you are to have birds around the warp danger zone!

The better Baffler device you build: the greater protection you will have over the warp danger areas, and less likely you will have to deal with warp strikes.

Contact John Cleal for further information Ph. 021 305825

Inshore & Coastal SI Trawlers (Warp Strike Risk and Mitigation)

South Island trawl fisheries have observed and unobserved reports of seabird captures on warps, often larger birds especially albatross. Seabirds are attracted to fishing vessels mainly because of the availability of food. Mitigation solutions are well known and can be easily addressed and solved and effective if properly adopted.

- Discharging fish waste 'continuously or regularly' increases the number of birds around the boat
- Discharging fish-waste into the path of the warp attracts seabirds and while feeding can end-up within the warp danger area, and potentially striking the warp. On contact they can;
    a. Hit the warp and bounce-off, or become forced under water for a short period of time, and then 'pop-back-up' alive (but fate uncertain)
    b. Become forced under-water, their wings tangle/twist around the warp, the seabird slides down the warp and drowns or;
    c. Slide down the warp, until becoming snagged on a sprag or a splice and is held in place for the duration of the tow and is returned (dead) to the vessel when gear is hauled back onboard

Mitigation: No <u>continuous discharge</u> of offal & fish-waste. **Live fish and fish waste discharge must be 'controlled' whenever discharge is made into the path of the warp, and seabirds are present, warp mitigation must be deployed**!

During hauling & shooting, return those fish required to be returned to the sea while still alive.(in a manner to reduce the risk of warp captures)

1. <u>During the tow duration</u> hold all fish-waste (in bins or fish pound, etc) for the full tow duration and discharge all fish waste when trawl net is on the deck or;
    a. Hold fish waste in bins or fish pound etc, then discharge 'in-batches' away from the path of the warp (or over the stern if the risk is low and the trawl net is not at the surface) or;
    b. Hold fish-waste in bins, fish-pound, tank or chute etc and 'batch-discharge' at intervals when the full capacity is reached. If, or when the discharge is made into the path of the warp area, and seabirds present within the warp danger zone,
        i. Deploy a suitable warp mitigation device when required or;
        ii. If discharging is required regularly by larger vessels then fit/deploy a 'set & forget' baffler or fit another suitable device while fishing.
2. Ensure warp splices are 'wrapped', any sprags removed or 'whipped', and that warp splices are not near to the water surface

Following information is a guide. Vessel size is not automatically a proxy for increased risk of warp strikes, not all trawlers will 'fit' into this classification description, its fishing operations, deck and trawl equipment that dictates risk and the mitigation to negate that risk!

South Island Trawler - General Classification for Mitigation Requirements

Tier - 1 (Highest risk) Higher volume coastal/offshore trawler, (50, 60, 70ft+ / 15m - 21m+) often operating in areas overlapping with high numbers of albatross. Higher volume-catches and processing, vessels often have a 'truck-deck' as a fish receiving pound. Fish and fish waste discharge is required more often when towing and the position of the trawl blocks and warps, often discharge flows back into the path of the warp.

Mitigation: Fish waste control, requires equipment (tanks, bins chutes etc) hold and control fish-waste and 'batch-discharge' fish waste at intervals.
Warp Mitigation, must have a suitable warp device that's ideally 'set & forget' deployed while fishing and is capable of deterring birds access from discharge-side down side of the hull into warp danger zone.

Tier - 2 (Moderate risk) lower volume coastal trawler, (40,- 50ft / 12m -15m) vessels can 'at- times' operate within areas overlapping with high numbers of Albatross, and 'at-times' have increased volumes of discards. With occasional higher volumes to discharge which exceeds the tow holding capacity, discharge maybe required into the path of the warp

Mitigation: Fish waste control, requires equipment (tanks, bins chutes etc) hold and control fish-waste and 'batch-discharge' fish waste at intervals. Some vessels may be able to discharge over the stern, or at times hold for the full tow duration and discharge when gear is on deck, or during high capacity catch and discharge periods, fish waste may need to be discharged into the path of a warp.
Warp Mitigation, must have a suitable device onboard, and if/when fish waste is discharged into path of the warp, the device must be deployed for that tow. Device examples: A baffler-option, tori line, warp deflector- (buoy/float clipped to warp) and or buoy's attached along hull from the discharge point back into the warp area, or cone / shield etc, placed around warp at the surface level.

Tier - 3 (Lowest risk) small inshore trawler, (30 - 40ft / 9m - 12m) low fishing effort and catch volume, often operating close to shore with fewer seabirds in attendance. Low volume fish waste can either be held for duration of the tow, and as gallows/trawl blocks deployed well outboard of the hull, fish waste/discards are easily discharge over the stern away from the path of the warps.

Mitigation: Fish waste control, basic measures required, able to hold all fish waste/discards held in bins etc and held for whole tow and or batch discharged away from the path of the warp (over stern etc) i.e. no discharge while fishing into the path of the warp when towing.
Warp Mitigation, no device required

South Island Protected Species Liaison Programme Liaison Officers: John Cleal Ph. 021305825 (Lyttelton, Nelson, West Coast)

Fisheries New Zealand
Tini a Tangaroa

Protecting South Island Hector's Dolphins

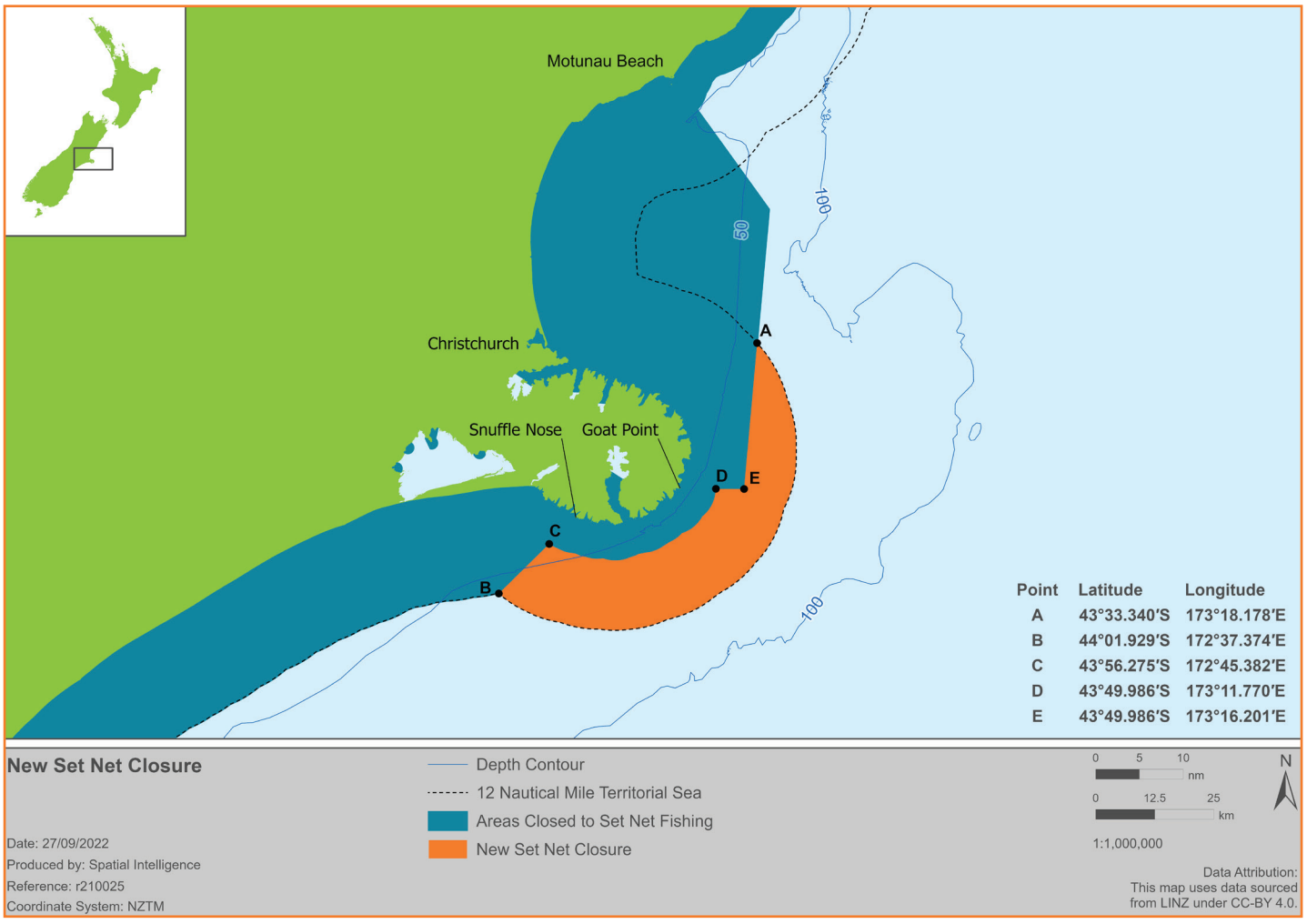
New fishing measures to protect South Island Hector's dolphins will take effect by the end of 2022. These changes are in addition to the extensive closures that were put in place in 2020 as part of the Hector's and Māui Dolphin Threat Management Plan[1] to protect these precious taonga from fishing-related threats.

In summary, this will extend the areas where commercial and recreational set net fishing is prohibited and introduce a new Bycatch Reduction Plan. These new regulatory and voluntary measures will help reduce the risk of fishing-related deaths of Hector's dolphins.

What are the new rules?

Set net fishing closures

New commercial and recreational set net fishing closures will extend the existing closures around Banks Peninsula out to 12 nautical miles offshore.



1 https://www.doc.govt.nz/our-work/protecting-species/protecting-marine-species/our-work-with-maui-dolphin/hectors-and-maui-dolphin-threat-management-plan/

Bycatch Reduction Plan

The Bycatch Reduction Plan includes a suite of voluntary and regulatory measures to incentivise and support fishers to reduce Hector's dolphin bycatch towards zero. Voluntary measures would be applied to all the South Island Hector's dolphin subpopulations and include:

- Protected Species Risk Management Plans on every commercial set net and trawl vessel that set out the mitigation measures each vessel will use.
- Detailed reporting of circumstances surrounding Hector's dolphin captures to help identify common factors that can inform techniques or tools to avoid future captures.
- Escalating vessel-based capture responses. Fisheries New Zealand, the Department of Conservation Liaison Programme, and industry will work with individual vessel operators that capture a Hector's dolphin to identify and implement vessel-specific techniques to reduce the likelihood of further captures by that vessel.
- Escalating area-based responses. Agencies and industry will work with the relevant commercial fishers in an area if Hector's dolphin captures are occurring to ensure they collectively take voluntary measures to avoid further captures.
- Supporting development of new mitigation techniques (informed by mātauranga and tikanga) through our research planning processes and applications to access existing funds.
- Public quarterly reporting on the performance of the plan (captures and responses) with an annual review and report on performance to Ministers from Fisheries New Zealand and the Department of Conservation.

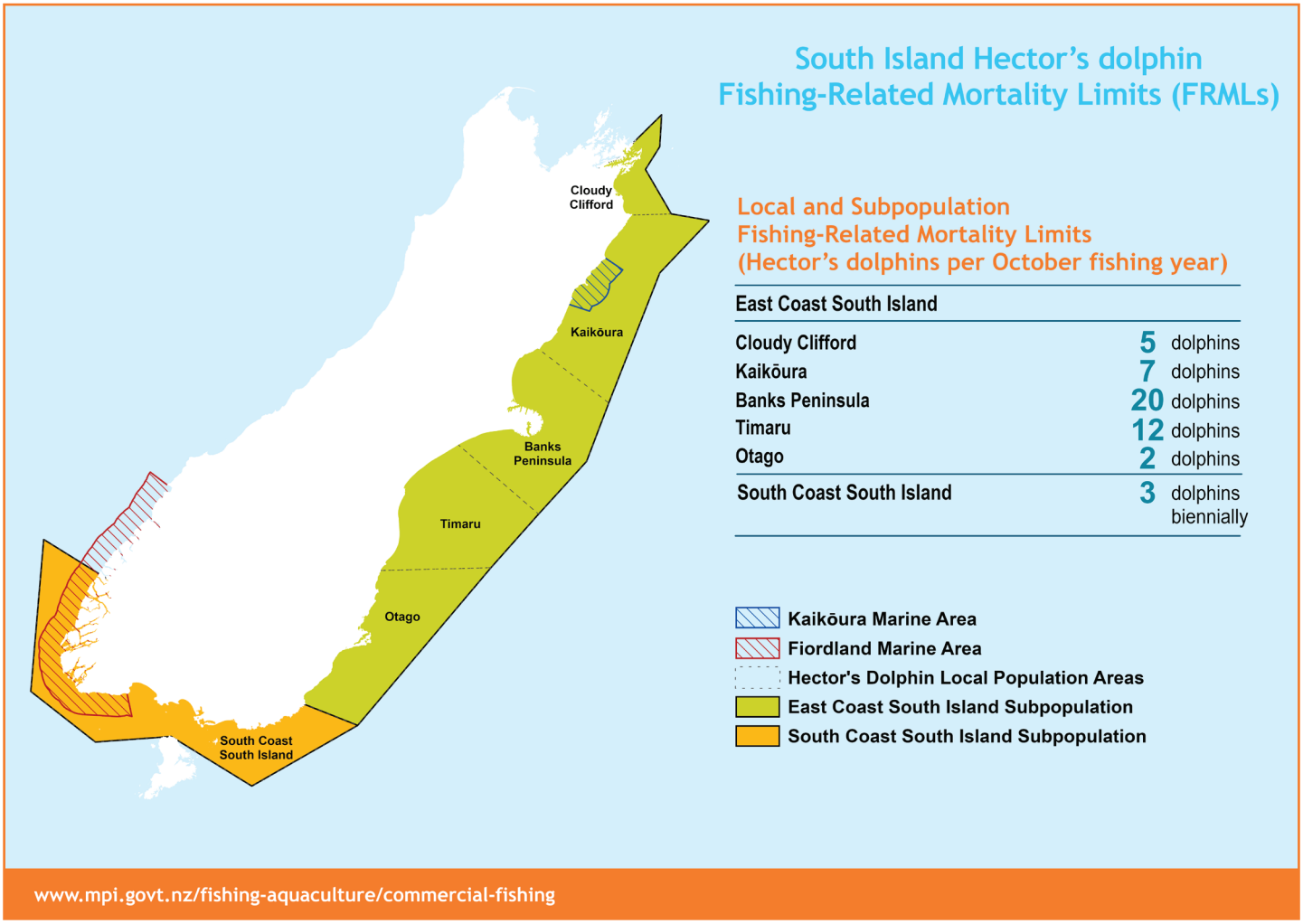
Regulatory measures include:

- Setting **fishing-related mortality limits** for the south coast subpopulation and each of the five local populations within the east coast subpopulation.
- The plan will be supported by the rollout of on-board cameras, which will allow independent monitoring of interactions between fishing and Hector's dolphins and verification of fisher reporting. On-board cameras will be operating on trawl vessels (⩽32 m overall length) and set net vessel (⩾8m overall length) on the north, east, and south coasts of the South Island, from mid-2023.

What is a Fishing-Related Mortality Limit?

A fishing-related mortality limit can be set by the Minister for Oceans and Fisheries (pursuant to section 15 of the Fisheries Act 1996). While the limit defines a maximum number of fishing-related deaths that could occur for a protected species in an area, it also enables the Minister to respond more quickly with additional regulatory measures to ensure the limit is not exceeded. Any additional measures would be via Gazette notice in the Gazette rather than secondary legislation.

The fishing-related mortality limits for South Island Hector's dolphins are informed by scientific estimates of the maximum number annual human-induced deaths that could occur while still allowing the Threat Management Plan fisheries objectives to be met.



Where can I find more information about the Bycatch Reduction Plan?

Detailed information on the Bycatch Reduction Plan can be found on the Fisheries New Zealand website: https://www.mpi.govt.nz/fishing-aquaculture/sustainable-fisheries/managing-the-impact-of-fishing-on-protected-species/protecting-hectors-and-maui-dolphins/

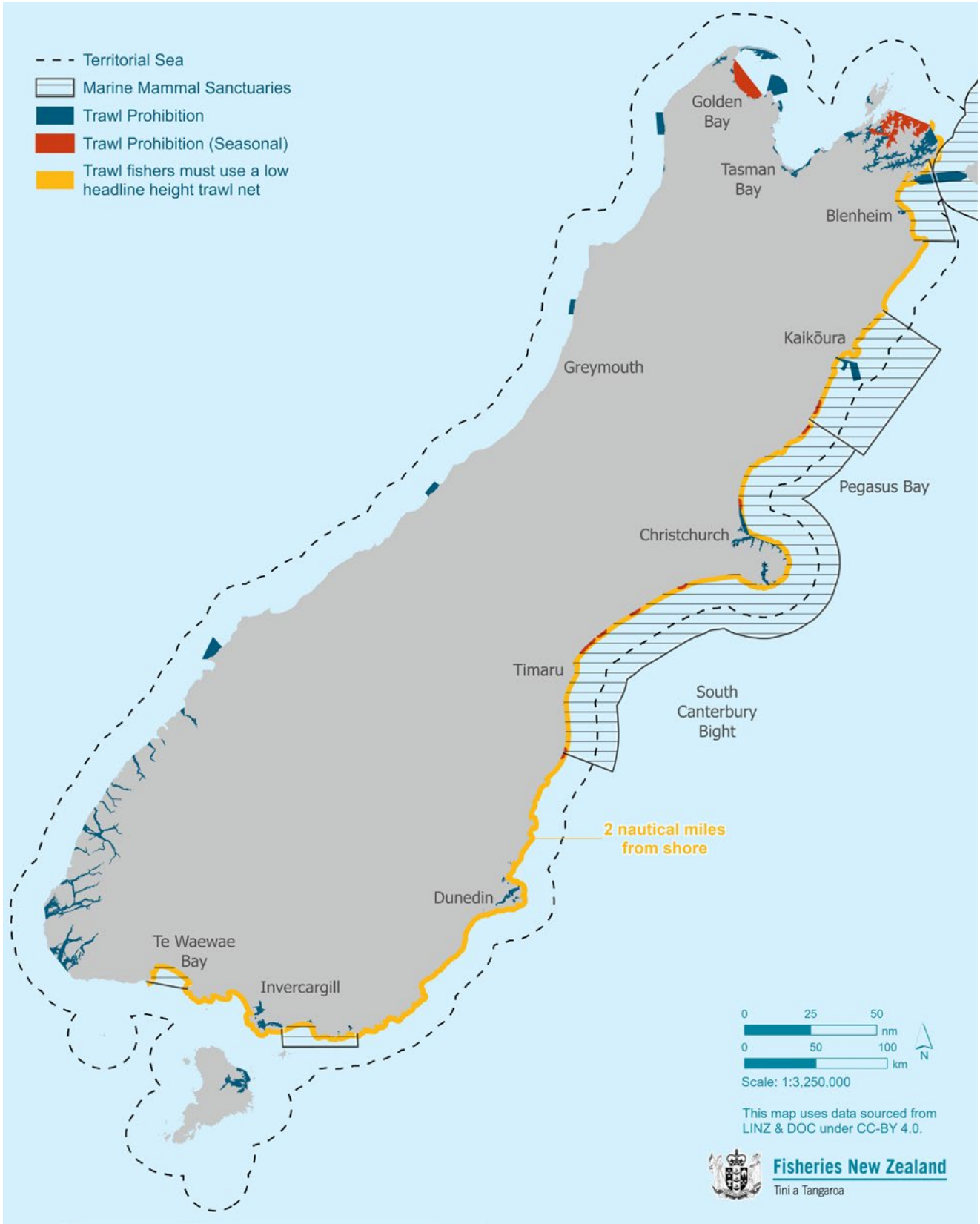


Figure A1.5. Commercial trawl restriction and prohibition areas off the South Island.

Download the
Fishing Rules app or visit
www.fisheries.govt.nz/rules