BLL - 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: Be familiar with BLL Seabird Mitigation Circular, which is included in your mitigation folder. All protected species captures must be reported using the electronic NFPS Catch Report.

Additional Resources

MS Alignment: ☐ 1.1, ☐ 1.2, ☐ 2.1, ☐ 2.2, ☐ 2.3, ☐ 2.4, ☐ 3.1, ☐ 3.2, ☐ 3.3, ☐ 4.1, ☐ 4.2, ☐ 4.3

Vessel's Practices – Health and Safety of crew comes first				
Discharge management	- Setting: No discharge immediately before or during, especially rejected baits - Hauling: All used bait is retained. Fish waste held or batched at intervals *(select one or indicate if both are used)*. - Storage & discharge point: *E.g. used bait and fish waste are held in fish bins and discarded off the side opposite the hauling station*			
Tori line	- Tori line meets regulations including protecting hooks even in a crosswind - Tori line is used for the duration of all sets - Attachment height: x metres (Approx x metres above waterline at stern)			
Night setting	- Always/Sometimes/Never Night setting *(explain if/when day-setting may occur)*			
Weighting regime	**Speed**	**Gear setup**	**Low risk weight**	**High risk changes & comments**
[Target]		Floated/eggs	kg/m (Hooks)	
[Target]		Droppers	kg/m (Hooks)	
[Target]		Hard down	kg/m (Hooks)	
Sink rate	- Sink rate tests conducted as per regulations on slowest sinking hook for each setup *- Indicate if TDRs are available to the vessel and if the sink rate app is in use* - Bait is sufficiently thawed (i.e. not fully frozen)			
Haul mitigation	- Hook surface time is minimised and hooks are kept below 10m during haul breaks - Haul mitigation behaviour: *E.g. hose, sound, and/or vessel manoeuvres* - Haul mitigation device: *E.g. baffler*			
High-risk periods/areas	*- E.g. Stop fishing, increase sink rate, night set, avoid fishing near seabird colonies?* - 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 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 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 BOTTOM LONGLINERS TO SAVE PROTECTED SPECIES

1. **Ensure your vessel has on board the current inshore Bottom Longline Operational Procedures (OP), a Protected Species Risk Management Plan (PSRMP), and the current bottom longline regulations, and that you and your crew are familiar with them.**

2. **Ensure your tori line meets legal specifications including protecting baits even in a crosswind. Carry ample spare parts.**

3. **Be aware of high-risk periods, and maintain a minimum tori line aerial extent of 50 metres during these times:**

    - During daylight hours
      (0.5 hours before nautical dawn and 0.5 hours after nautical dusk)

    - During a full moon and three days either side of a full moon

4. **As legally required, when setting, weight your lines to achieve a depth of 5 m (on slowest sinking hooks) within the aerial extent of the streamer line. Carry out monthly sink rate tests as required by the regulations and maintain a record of the results on board.**

5. **Do not discharge of offal or fish waste immediately before or during setting and use thawed bait.**

6. **While hauling either hold or batch discharge offal, fish waste, and bait from the side opposite to the hauling station as per legal requirements. Discharge of any offal or fish waste is not permitted on the hauling side of vessel, unless a hauling mitigation device is deployed, and the fish is either alive or greater than 30 cm in length.**

7. **While ensuring safe operating standards, minimise additional and unnecessary lighting so as not to attract or disorientate seabirds, especially while sheltering or at anchor.**

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

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

10. **Report protected species captures by ERS. Remember it is not illegal to catch a protected species, however it is illegal to not report it!**

For support phone your local Liaison Officer.

DOC CSP Protected Species Liaison Programme bottom longline 10GRs (Version 5 Dec 2025)

SEAFOOD NEW ZEALAND

SEAFOOD NEW ZEALAND

Inshore Bottom Longline 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 regulatory requirements for the use of longlines and the overarching requirements can be found in the *Fisheries (Commercial Fishing) Regulations 2001* https://www.legislation.govt.nz/regulation/public/2001/0253/latest/whole.html.

Mitigation regulations for bottom longlining are available at:

https://www.mpi.govt.nz/dmsdocument/68070-Fisheries-Seabird-Mitigation-Measures-Bottom-Longlines-Circular-2025

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:

- Tori line details – including if, when, and how multiple tori lines are deployed
- Offal, discards, and bait management and control
- Gear setup details for all configurations fished
- Circumstances under which you will add extra measures
- Circumstances under which you will stop setting
- Hauling mitigation practices and devices
- Light control – including when at anchor and steaming, especially when close to seabird colonies
- How you choose where and when to fish to minimise risk

Sink rate tests

You must also keep a record of sink rate tests. Ensure you are testing all setups used monthly and that they meet the five-metre depth at the end of the tori line aerial extent requirement. Guidelines on how to carry out tests and how to sink gear faster to meet the requirements are provided in your folder.

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
All risks	All species	• Consider overlap with protected species when choosing where and when to fish.

Set capture	Seabirds	• Remove attractants
		  ○ No dumping of fish waste / offal / baits immediately before or during setting.
		  ○ Minimise light spill
		• Set at night
		• Sink hooks rapidly
		• Protect hooks with a tori line
		• Use multiple tori lines to better exclude birds
		• Shoot downwind
		• Understand how your gear sinks – sufficient line tension and weight spacing are important
		• Be aware of what is happening astern and react – add extra weight or stop setting if birds are actively chasing baits

Soak capture	Marine mammals Sharks	• Avoid prolonged soaks and slack buoy lines on the surface.
Haul capture	Seabirds	• Hold or, if necessary, batch discard offal, old baits, and fish waste • Use a haul mitigation device • Recover floating lines / loose ends as quickly as possible • Minimise instances of exposed shallow hooks
Deck strike	Seabirds	• Minimise light spill, especially when at anchor and steaming close to colonies • Keep deck clean

MAIN SPECIES AT RISK – SOUTH ISLAND

Species at Risk	Species Code	Main Risk Area	Place, Time, Risk Profile
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
Buller's albatross	**XPB**	All areas	• Southern species nests on the Snares and forages on both coasts
Salvin's albatross	**XSA**	All areas	• Summer breeders on the Bounty and Snares Islands • Forages on both coasts
White-capped albatross	**XWM**	All areas	• Summer breeder on Auckland Islands • Forages on both coast, closer inshore than Salvin's
Royal Albatross (great albatross with dark line on bill)	**XRU**	East Coast South Island	• Breed on Chathams, Taiaroa Head, and subantarctic islands, migrate to South America • Extensive distribution, not generally North of East Cape • Good at finding boats • Tend to hang back and harass other birds but can scavenge aggressively • Forage on the shelf
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, usually haul out on 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 at risk	Species Code	Main Risk Area	Place, Time, Risk Profile
Black petrel	**XBP**	Mainly east coast	• Summer breeder on Great and Little Barrier (migrate to South America) • Aggressive feeding on arrival into NZ and before departure Good diver
Flesh-footed shearwater	**XFS**	Mainly 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
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**	Northern east coast	• Most common over summer, particularly Nov-Mar • Trans-Tasman population (range between NZ, Australia and the South Pacific islands – highly migratory species
Maui dolphin	**MDO**	West coast particularly between Manganui Bluffs and Mokau	• Patchy distribution, often in shallow water and off river mouths but can extend range 20nm offshore • Use sonar to detect prey, but not 100% of the time – making them susceptible to captures • WCNI: Closure regulated as of June 2020. See supplemental material for maps
Wandering Albatross (great albatross with no line on bill)	**XWA**	All areas	• Breed on Auckland and Antipodes Islands • Generally well offshore but good at finding boats • Tend to hang back and harass other birds but can scavenge aggressively. • Historical captures in summertime. • Declining population

Fisheries New Zealand
Tini a Tangaroa

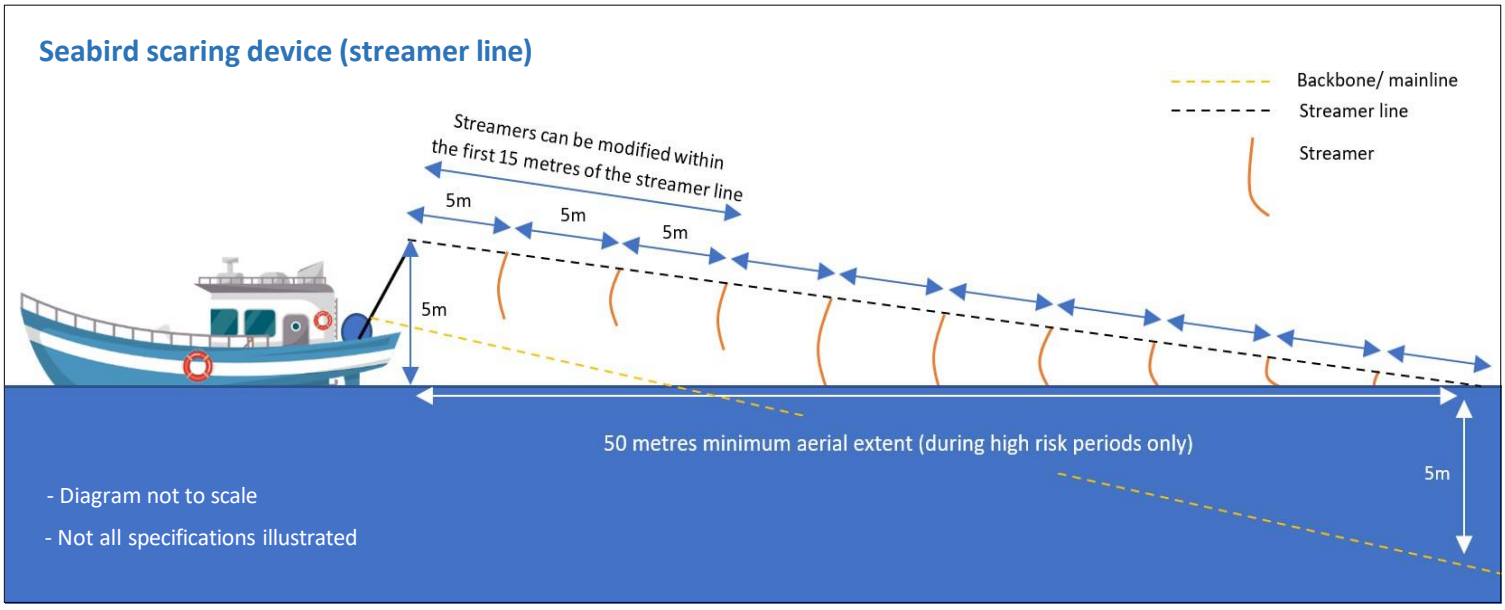
Fisheries (Seabird Mitigation Measures – Bottom longlines) Circular 2021
Requirements for vessels between 7 and 20 metres (excl. autoliners)

The National Plan of Action for Seabirds 2020 led Fisheries New Zealand and the Department of Conservation, along with stakeholders, to create non-regulatory Mitigation Standards for bottom longline vessels to reduce seabird risks. The Fisheries (Seabird Mitigation Measures – Bottom Longlines) Circular 2021 better aligns mandated measures with these best practice standards.

Streamer Line Specifications

All bottom longline vessels that are between 7 and 20 metres in overall length (excl. autoliners) must deploy a streamer line during the setting of bottom longlines that meet the following specifications:

- The streamer line must be attached to the vessel at a point 5 metres above the surface of the water in the absence of swell.
- The streamer line must be attached such that when deployed, baits are protected by the streamers, even in a crosswind.
- Streamers must be brightly coloured.
- Streamers must be spaced a maximum of 5 metres apart, beginning no more than 5 metres from the stern of the vessel and extending the full aerial length of the streamer line.
- When deployed, each of the streamers must reach the sea surface in the absence of wind and swell. Streamer length will vary depending on the height of their attachment point above the water.
- However, streamers on the first 15 metres of the streamer line may be modified to avoid tangling with the backbone as long as a minimum length of 1 metre is maintained.
- The streamer line must achieve a minimum aerial extent of 50 metres when fishing during high-risk periods (i.e. during daylight hours or for 3 days either side of a full moon).[1]
- **Note**: Vessels using the method of Dahn lining are not required to use a streamer line.



[1] There is no aerial extent requirement outside of high-risk periods

Fish Waste Management

Offal or fish MUST NOT be discharged during setting (see Circular for exceptions relating to the discharge of fish during setting).

During hauling of bottom longlines, offal and fish that can be legally discarded may only be discharged from the side of the vessel opposite to the side on which the lines are hauled e.g., starboard haulers must discard from the vessel's port side and stern haulers must discharge from the bow.

There are some exceptions to this rule, where legally discardable fish may be discharged from the side of the vessel on which the lines are hauled, provided a hauling mitigation device is deployed and the fish are either (a) live, or (b) whole, dead fish longer than 30 cm.

A hauling mitigation device physically deters or blocks seabirds from flying or swimming directly into the area where lines are being hauled, without causing harm to birds.

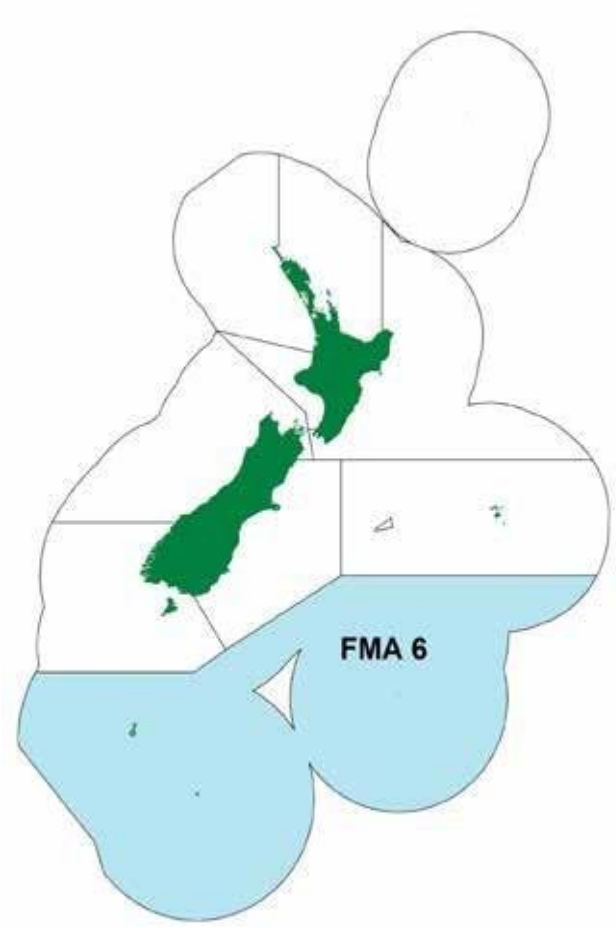
Line Weighting Regime

When bottom longlining, lines must be weighted so that the

slowest sinking hook[1] can be demonstrably shown to reach a depth of 5 metres within the protection of the aerial extent of the streamer line.[2] Sink rates must be measured at regular intervals (defined as once per calendar month or when gear setup significantly changes) and the information recorded and retained for one year. This data must be made available upon request by Fisheries Compliance Officers and Observers.

Fishers can measure sink rates either through bottle tests or using time-depth recorders (TDRs). While TDRs are considered to provide more accurate information, they are more expensive.

Bottle tests provide a cheap and easy way of measuring sink rates. A bottle test is conducted by clipping an empty biodegradable bottle[3] to the mainline using rope/monofilament line of a known length. Once the bottle has been pulled underwater, the mainline will have sunk to a depth equal to the length of the rope/monofilament line. By measuring the time it takes for the bottle to sink, setting speed and aerial extent of the streamer line, it is possible to calculate the sink rate of the mainline and determine whether the desired depth was reached within the aerial extent of the streamer line. Materials on measuring sink rates have been developed by Fisheries Inshore New Zealand and Department of Conservation Liaison Officer Programme (bottle test guidelines).



Area Specific Line Weighting

All bottom longline vessels operating in FMA 6 (Sub-Antarctic) between 1 November and 31 May must use integrated weight lines (IWL) with a lead core of at least 50 grams per metre. This is to reduce the risk of seabird captures during the seabird breeding season when birds are foraging more aggressively to feed their chicks. Evidence has shown that the use of integrated weight lines may reduce the incidental capture of seabirds and since many vessels that are active in the area already utilize IWL, the impact of requiring this gear is considered low.

The requirements for line weighting are proposed as an intermediary solution that enables fishers to continue their operations with minimal impacts on seabirds while additional data is collected on sink rates of hooks using various gear set ups. Once more data is available, these regulations will be revisited and a more permanent solution developed, in conjunction with stakeholders.

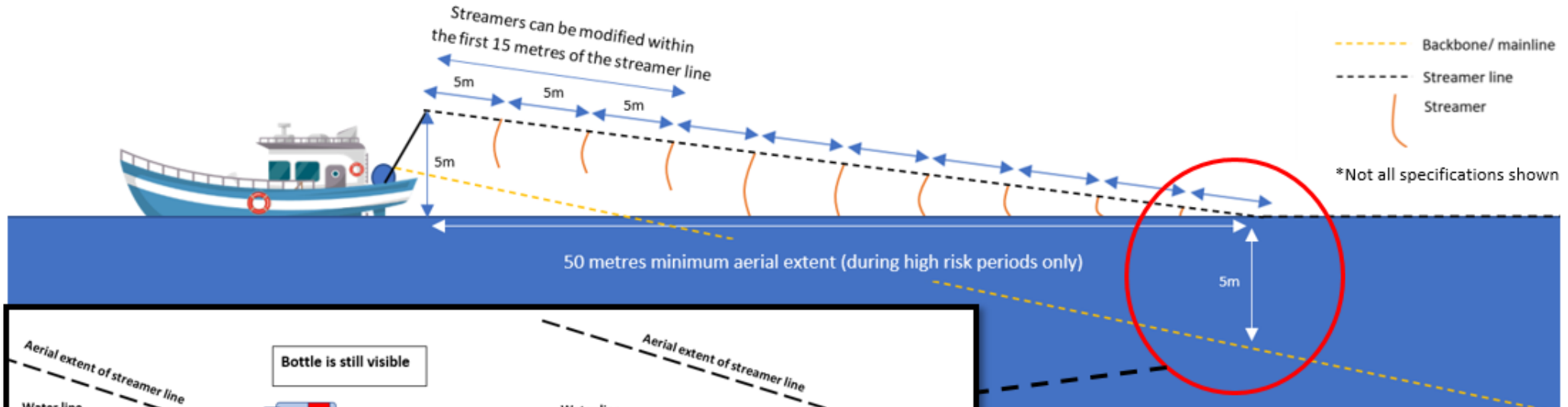
[1] For the purpose of the Bottom Longline Circular 2021, the slowest sinking hook means the mid-way point between two weights near the centre of the line.
[2] Vessels using the method of Dahn lining do not have to meet the sink rate requirement.
[3] Fisheries New Zealand encourages the use of biodegradable bottles and asks that care is taken to retrieve bottles following testing. Biodegradable water bottles can be found at Compostable Bottle, Bottle Made From Plants: For The Better Good.

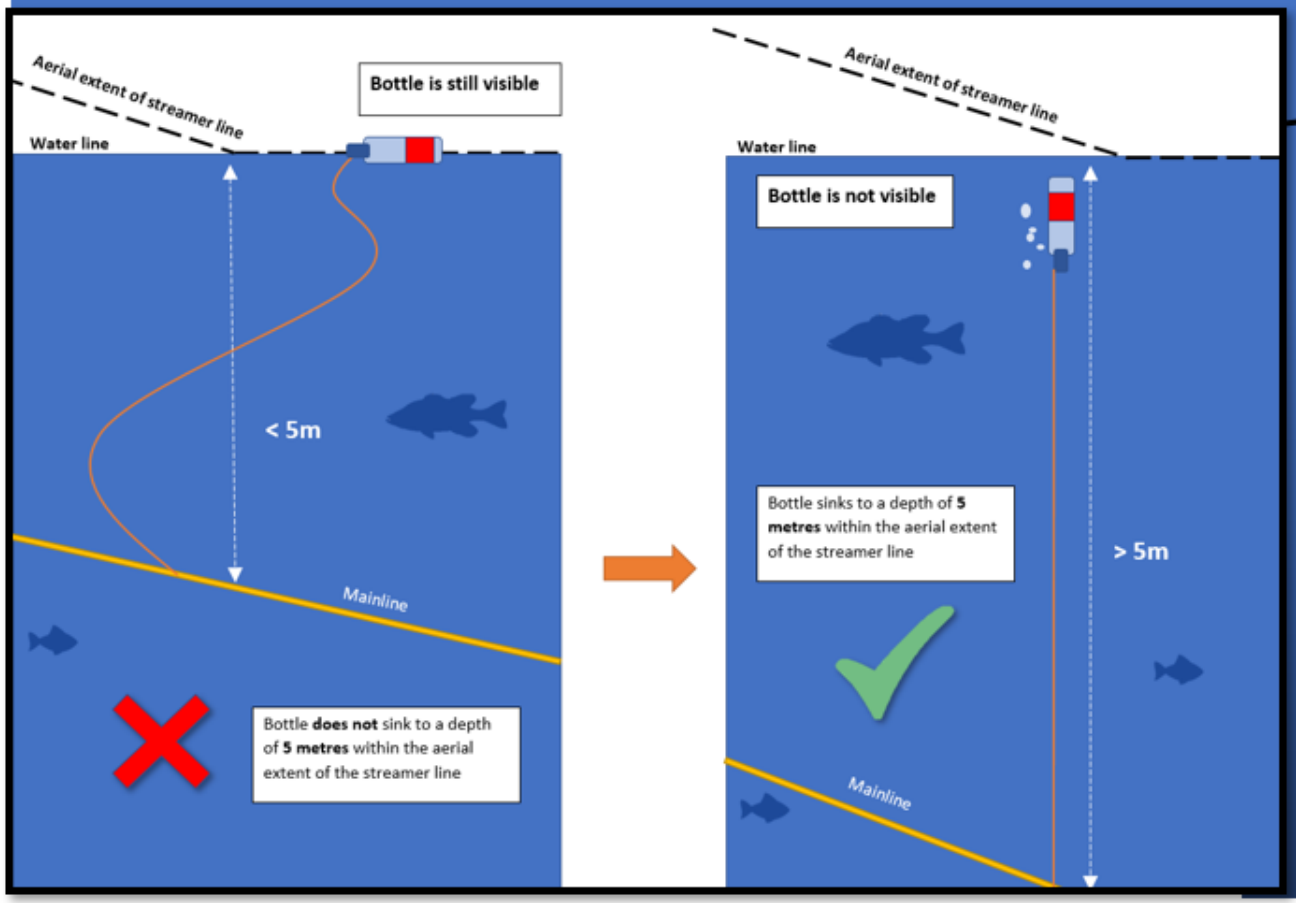
Streamer Line and Bottle tests – The Basics

August 2021

Fisheries New Zealand
Tini a Tangaroa

Department of Conservation
Te Papa Atawhai





- Attach bottle with 5m snood to slowest sinking part of mainline (mid-way point between two weights)
- Does the bottle disappear before the streamer line enters the water? If not:
  - Add more weight, decrease the spacing between your weights, remove floats and/or decrease setting speed; and
  - Improve performance of streamer line to increase aerial extent (i.e. increase drag and/or height of attachment point)
- Sink rates must be tested at least once per month and/ or when gear set up changes significantly
  - Record sink rate results on a form and keep on board for a minimum of one year

BLL Bottle Sink Rate Test Protocol

Purpose: To measure whether the slowest sinking hook reaches 5 meters depth before the end of the tori line.

Longlines must be weighted so that the slowest sinking hook can be demonstrated to reach a depth of five metres (5m) within the aerial extent of the tori line. The tori line needs to maintain 50m aerial extent when fishing during high risk periods. You are required to conduct sink rate tests for the different longline gear configurations you use and record those results onboard. The tests must be carried out and calculated at least once per month and or whenever there is a gear change which may alter the sink rate and you've not recorded a bottle test for.

The bottle test is a simple way to measure your longline sink rate. Clip an empty plastic bottle onto the backbone when setting with a 5m length of line between the bottle and the clip, when the bottle is pulled below the surface that indicates distance astern when the gear was at 5m depth.

Consider doing the tests on a calm day while steaming out to the fishing grounds, in a similar depth using same gear set up. Rather than when you are fishing, (make sure there's very low risk of seabird captures) and set a few daylight lines *(don't need to have baited hooks)* bottle testing will be much easier and you will have more time do it properly.

Preparation before the bottle test:

- Get a plastic drink bottle, 500ml to 1lt '*water bottle'* (*a longer narrow bottle is much easy to see*).
- Cut a 5m piece of light-line and tie one end to the neck of the bottle and the other end to a shark clip.
- Pop open or remove the cap of the bottle and drill small hole in the base to allow water in and air out.
- Wrap the line around the bottle so that it can unwind freely when conducting the test.
- Have a stopwatch ready before the test and if doing tests at night, wrap reflective tape around the bottle and use a decent torch, 'spot-light' so see the bottle off in the distance as it sinks.

Undertaking a bottle test:

- Record the vessel information before undertaking the test (e.g. setting speed, line weight size, aerial extent of tori line) When shooting, clip the bottle onto the mainline halfway between 2 weights, (usually the slowest sinking part of the line) Check Health and safety measures and stay clear from the bottle-line when deployed.
- Do the test in good weather in the depth the gear is set up for; wait until the end weight is on the seabed. During the test you need to record the; (1) length of the tori line aerial extent (2) record distance astern the bottle sinks, there are 2 ways of calculating your sink rate using the bottle-test method:
- The easiest way, before sailing pull out your tori line and mark it at 40m, 50m, 60m+etc (*these measurements need to be from the stern*) when ready, clip the bottle to the mainline and use the tori line as a measuring-tool, watch when the bottle is pulled underwater in relation to your tori line aerial extent and record the distance.
- The other option is the time-speed calculation method. Clip the bottle onto the mainline and start the stopwatch when the mainline leaves the vessel stern. Stop the stopwatch when the bottle is pulled underwater. Using the time it took along with the boat speed in the table below, lookup the distance astern the backbone reached 5m depth.
- Bottle tests will be varied due to changing environmental conditions and other factors so do a few tests to get consistent results you may require changes to gear the set-up, until you manage to sink the gear to the required level, record all test results on the below form.
- Having trouble meeting the required sink depth before the tori line reaches the water surface, you need to make changes to improve your sink rate; add larger weights, or add more weights at closer intervals, improve tori line aerial extent performance and or reduce floatation, perhaps extend the length of the float-ropes. *(Reducing boat speed will help improve the sink rate but you will also reduce your tori line aerial extent)* likely you may need to do some or all of these to reach the standard.

Bottle test look up table to find distance travelled from speed and time taken

Lookup the time taken along the top row and follow that column down until it matches setting speed (through the water) on the left-hand column. The figure in the box gives the distance travelled before the bottle sank.

Speed		Time (seconds)																													
knots	(m/s)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
2	1.03	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	21	22	23	24	25	26	27	28	29	30	31
2.5	1.29	0	1	3	4	5	7	8	9	11	12	13	15	16	17	19	20	21	22	24	25	26	28	29	30	32	33	34	36	37	38	40
3	1.54	0	2	3	5	6	8	9	11	12	14	15	17	19	20	22	23	25	26	28	29	31	32	34	35	37	39	40	42	43	45	46
3.5	1.8	0	2	4	5	7	9	11	13	14	16	18	20	22	23	25	27	29	31	32	34	36	38	40	41	43	45	47	49	50	52	54
4	2.06	0	2	4	6	8	10	12	14	16	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	54	56	58	60	62
4.5	2.32	0	2	5	7	9	12	14	16	19	21	23	25	28	30	32	35	37	39	42	44	46	49	51	53	56	58	60	63	65	67	69
5	2.57	0	3	5	8	10	13	15	18	21	23	26	28	31	33	36	39	41	44	46	49	51	54	57	59	62	64	67	69	72	75	77
5.5	2.83	0	3	6	8	11	14	17	20	23	25	28	31	34	37	40	42	45	48	51	54	57	59	62	65	68	71	74	76	79	82	85
6	3.09	0	3	6	9	12	15	19	22	25	28	31	34	37	40	43	46	49	52	56	59	62	65	68	71	74	77	80	83	86	90	93
6.5	3.34	0	3	7	10	13	17	20	23	27	30	33	37	40	43	47	50	54	57	60	64	67	70	74	77	80	84	87	90	94	97	100
7	3.6	0	4	7	11	14	18	22	25	29	32	36	40	43	47	50	54	58	61	65	68	72	76	79	83	86	90	94	97	101	104	108

Speed		Time (seconds)																													
knots	(m/s)	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
2	1.03	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	54	55	56	57	58	59	60	61	62
2.5	1.29	40	41	42	44	45	46	48	49	50	52	53	54	56	57	58	60	61	62	64	65	66	67	69	70	71	73	74	75	77	78	79
3	1.54	46	48	49	51	52	54	56	57	59	60	62	63	65	66	68	69	71	73	74	76	77	79	80	82	83	85	86	88	90	91	93
3.5	1.8	54	56	58	59	61	63	65	67	68	70	72	74	76	77	79	81	83	85	86	88	90	92	94	95	97	99	101	103	104	106	108
4	2.06	62	64	66	68	70	72	74	76	78	80	82	84	86	88	91	93	95	97	99	101	103	105	107	109	111	113	115	117	119	121	123
4.5	2.32	69	72	74	76	79	81	83	86	88	90	93	95	97	100	102	104	106	109	111	113	116	118	120	123	125	127	130	132	134	137	139
5	2.57	77	80	82	85	87	90	93	95	98	100	103	105	108	111	113	116	118	121	123	126	129	131	134	136	139	141	144	147	149	152	154
5.5	2.83	85	88	91	93	96	99	102	105	108	110	113	116	119	122	124	127	130	133	136	139	141	144	147	150	153	156	158	161	164	167	170
6	3.09	93	96	99	102	105	108	111	114	117	120	123	127	130	133	136	139	142	145	148	151	154	157	161	164	167	170	173	176	179	182	185
6.5	3.34	100	104	107	110	114	117	120	124	127	130	134	137	140	144	147	150	154	157	161	164	167	171	174	177	181	184	187	191	194	197	201
7	3.6	108	112	115	119	122	126	130	133	137	140	144	148	151	155	158	162	166	169	173	176	180	184	187	191	194	198	202	205	209	212	216

Sink Rate Test Record Sheet

Date *dd/mm/yy*	**Time** *hh:mm NZST*	**Set test number**	**Avg Line weighting config** *kg/m*	**Float size** *(mm)* **config** *(m)*	**Back bone diameter** *mm*	**Setting speed** *knots*	**Aerial extent of the tori line (m)**	**Time to sink to 5m** *(seconds or distance from stern it sank)*	**Did hooks sink to 5m within the aerial extent?** *Y/N/U*	**Comments** *Weather, gear-set type, night or day test, bird activity etc.*
20/09/20	*03:45*	*1*	*6kg / 80m*	*200mm /40m*	2.2	*4.5*	*55*	*23sec -53m*	*Y*	*Nice day, set 4000m line with the tide, day-light test, Little bird activity, bottle sank few meters before tori line hit the water*

(Note: if a test fails, you must change the configuration of you gear and conduct another test until you meet the requirement. You will need at least 3 successful tests to show consistently for each gear configuration / species-target configuration

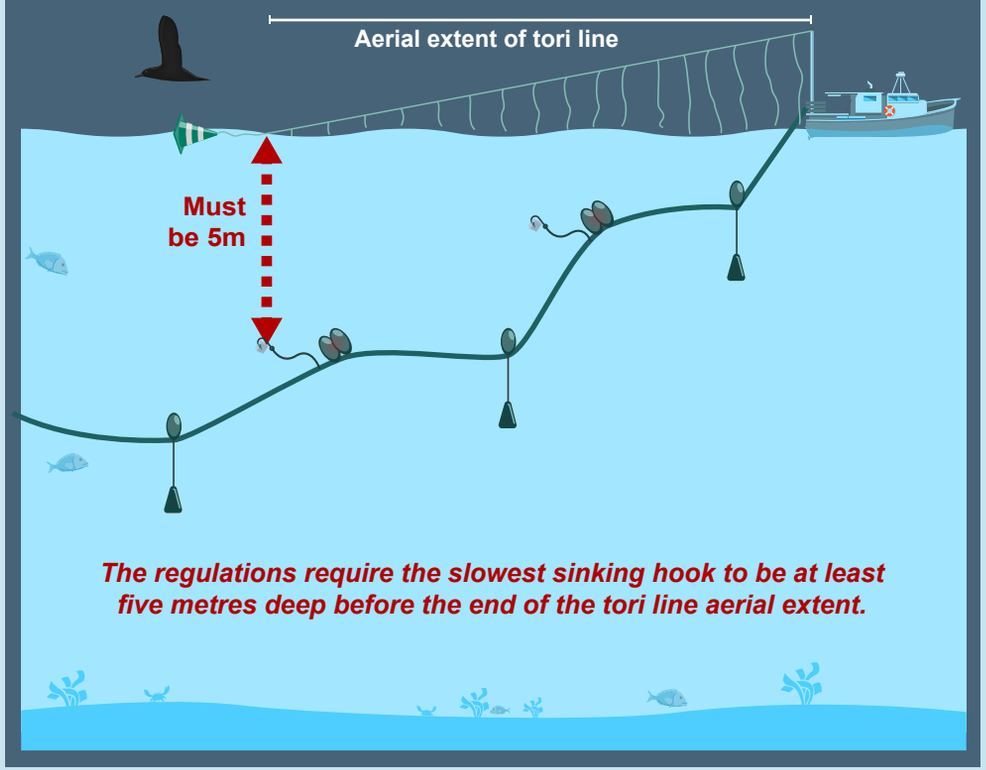
Sink Rate Test Record Sheet

Date *dd/mm/yy*	**Time** *hh:mm NZST*	**Set test number**	**Avg Line weighting config** *kg/m*	**Float size** *(mm)* **config** *(m)*	**Back bone diameter** *mm*	**Setting speed** *knots*	**Aerial extent of the tori line (m)**	**Time to sink to 5m** *(seconds or distance from stern it sank)*	**Did hooks sink to 5m within the aerial extent?** *Y/N/U*	**Comments** *Weather, gear-set type, night or day test, bird activity etc.*
20/09/20	*03:45*	*1*	*6kg / 80m*	*200mm /40m*	2.2	*4.5*	*55*	*23sec -53m*	*Y*	*Nice day, set 4000m line with the tide, day-light test, Little bird activity, bottle sank few meters before tori line hit the water*

(Note: if a test fails, you must change the configuration of you gear and conduct another test until you meet the requirement. You will need at least 3 successful tests to show consistently for each gear configuration / species-target configuration

Keep seabirds from accessing hooks

New Regulations (August 2021)



Three guiding principles to improve tori line aerial extent

1. Increase the height of your tori pole

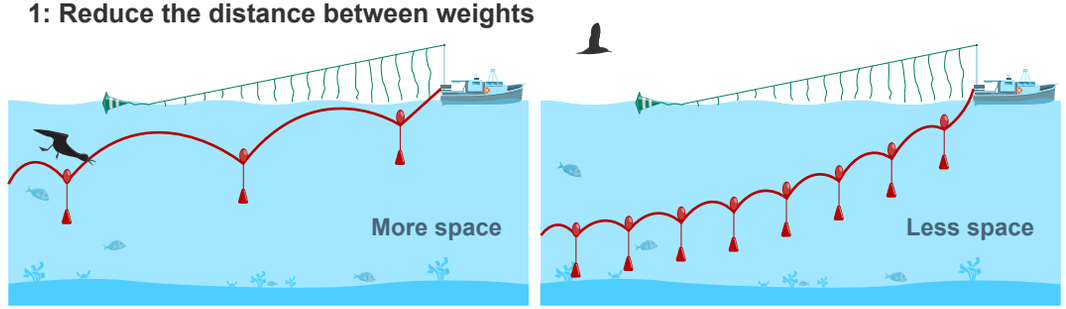
2. Increase drag to hold up longer tori lines

3. Make aerial sections lightweight so they are easier to hold up
The recommended aerial section of tori line is 3 mm dyneema with light streamers.

If this still doesn't provide enough aerial extent, reduce weight spacing and / or use larger weights.

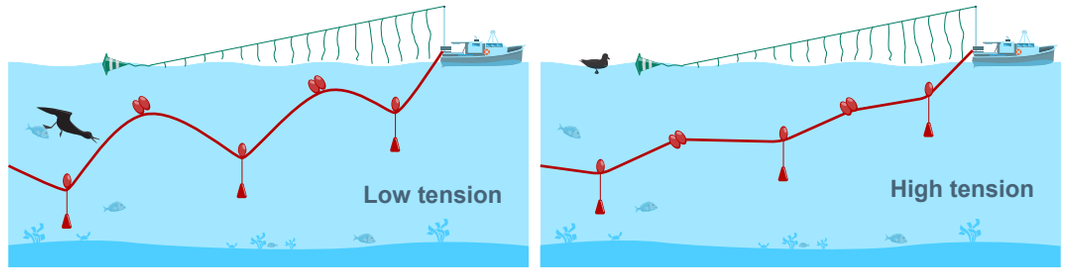
Five guiding principles to help sink your line closer astern

1: Reduce the distance between weights



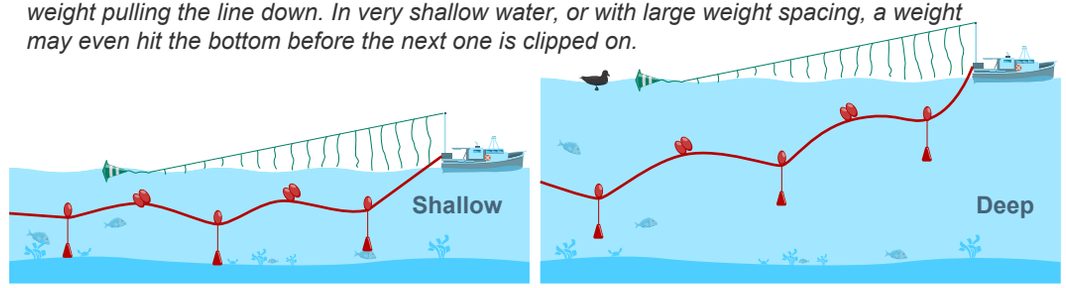
2: Increase line tension

More tension on the line speeds up sink rate for hooks midway between weights



3: When setting in shallow water, reduce weight spacing

Lines sink slower in shallow water because weights hit the bottom earlier, so there is less weight pulling the line down. In very shallow water, or with large weight spacing, a weight may even hit the bottom before the next one is clipped on.



4: Increase line weighting on thicker backbone

Thicker backbone sinks slower, so requires more weight to keep a good sink rate

5. Reduce setting speed

Hooks will sink closer to the boat and reduce the aerial extent required. However, during high-risk periods tori line aerial extent must always reach at least 50m.

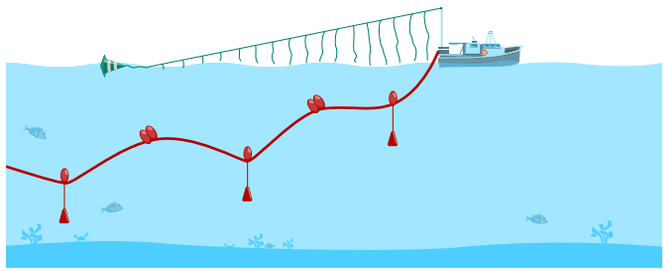
Tables for estimating required tori line aerial extent (m)

Look up your gear set-up in the tables below to estimate the aerial extent required to protect hooks up to a depth of five metres.
Numbers will vary between boats so this should only be used as a guide.

Green = recommended aerial extent, use a 5m pole | **Orange = difficult to achieve, use a 7m pole** | Grey = not recommended

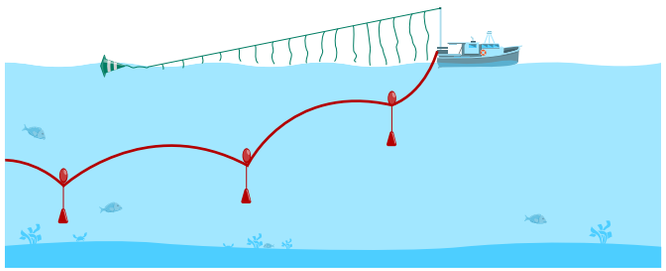
Floating / eggs

Gear set-up		Speed (knots)			
weight	spacing	4	5	6	7
3kg	50m	70	85	95	115
3kg	75m	80	95	105	125
3kg	100m	110	135	160	190
3kg	150m	124	155	185	215
5kg	50m	50	65	75	90
5kg	75m	60	75	90	105
5kg	100m	75	93	110	130
5kg	150m	125	155	180	215
7kg	50m	40*	50	60	75
7kg	75m	55	70	80	95
7kg	100m	80	100	120	140
7kg	150m	105	130	155	180



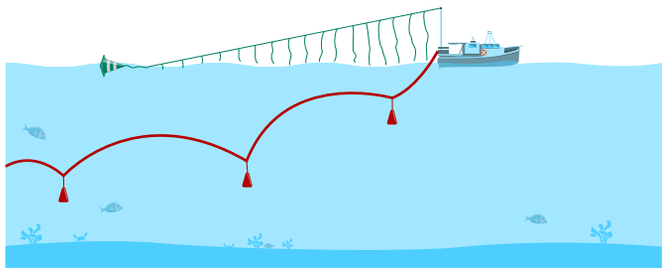
Droppers / bommies

Gear set-up		Speed (knots)			
weight	spacing	4	5	6	7
2kg	25m	65	80		
2kg	50m	92	115		
2kg	75m	100	130		
2kg	100m	130	160		
4kg	25m	35*	45*	55	65
4kg	50m	55	70	85	100
4kg	75m	75	95	105	125
4kg	100m	90	115	145	165
4kg	150m	115	145	180	208
6kg	50m	40*	55	65	75
6kg	75m	50	65	80	90
6kg	100m	65	80	95	110
6kg	150m	95	120	130	150



Hard down / just weights

Gear set-up		Speed (knots)			
weight	spacing	4	5	6	7
1kg	12m	55	70		
1kg	25m	65	80		
1kg	50m	70	85		
1kg	75m	85	105		
2kg	25m	40*	45*	55	65
2kg	50m	55	70	80	95
2kg	75m	70	90	105	125
4kg	25m	30*	40*	45*	55
4kg	50m	40*	50	60	75
4kg	75m	60	75	90	100
4kg	100m	70	90	105	122
4kg	150m	110	140	170	195



*** During high-risk periods tori line aerial extent must always reach at least 50m.**

These guidelines are based on trials conducted with a free-wheeling hydraulic drum with 2.2 mm mono backbone, lead weights,150 mm diameter hard floats on 3.6 m rope droppers, with TDRs clipped midway between weights. For the floating setup, two egg floats were clipped on midway between weights.

Department of Conservation
Te Papa Atawhai

BLL Tori line Design Guide (vessels greater than 7m)

Fisheries New Zealand
Tini a Tangaroa

Vessel Attachment

Attached to the vessel at least 5m (recommended at 7m+) above the surface of the sea in calm conditions, and as close to the stern as practically possible.

Streamer Aerial Section

Lightweight to improve aerial extent, but durable, at least 60m+ in length (plus your drag section). **The aerial extent section must achieve a minimum aerial extent of 50m when fishing high risk periods** (not including the drag section):

- High risk period: all day light hours and for three days either side of the full moon.

Each Streamer must reach the sea surface, **streamers must be spaced at a maximum of 5 metre intervals along the full aerial extent of the line.**

Streamers must be brightly coloured and may be shortened along the first 15 metres however streamers must be maintained at a minimum length of one metre.

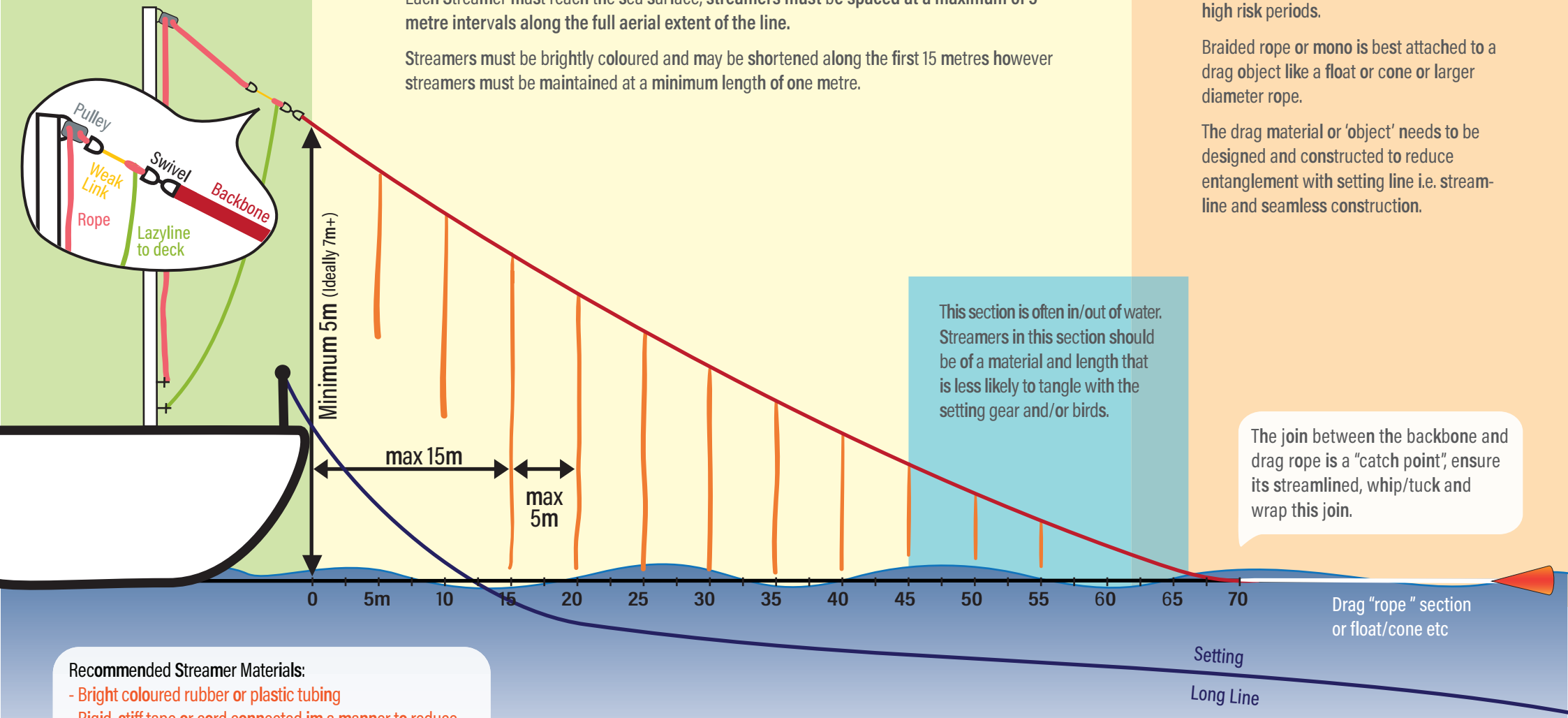
Drag Section

For vessels with Auto baiting machines and those 20m or greater, the tori line must be a minimum of 150m in length.

There needs to be enough drag to maintain a minimum of 50m of aerial extent during high risk periods.

Braided rope or mono is best attached to a drag object like a float or cone or larger diameter rope.

The drag material or 'object' needs to be designed and constructed to reduce entanglement with setting line i.e. stream-line and seamless construction.



Recommended Streamer Materials:
- Bright coloured rubber or plastic tubing
- Rigid, stiff tape or cord connected im a manner to reduce tangling with other streamers and the backbone

BLL Tori Line Design and Build – Guiding Principles (vessels greater than 7m)

Use the tori line design guide diagram (over page) as a starting point to construct something that works for your vessel design and fishing practices.

A well-designed and deployed tori line reduces risk of seabird captures but only if it is used in conjunction with an effective sink rate.

Tori lines need to protect the sinking hooks, lines must be weighted in order to achieve at least a five metre depth within the aerial extent of the tori line.

Tori lines (streamer lines) must be used on BLL vessels 7m or greater in overall length for all sets (vessels Dahn lining are not required to use tori lines).

The streamer line must achieve a minimum aerial extent of 50 metres when fishing during high risk periods; High risk periods are all day light sets and during a full moon and three days either side of a full moon.

All autoliners and BLL vessels 20m or greater in overall length, must have a tori line that is a minimum of 150m in length.

To maximise performance, the tori line needs to be:

1. Well-constructed, light weight but durable, easy to deploy and retrieve. It should leave the vessel as high as possible and have plenty of drag. You will need spare parts and should have a spare line set up and ready to deploy if a major tangle or breakage occurs..
2. The key to reducing tangling issues – sink your gear to a required depth before the tori line reaches the water surface, be able to adjust or move the tori line to protect baited hooks with a bridle etc to suit the changing conditions. Keep all the streamers in the air not lying in the water and the drag in-water section needs to be streamlined to reduce the risk of tangling.

Three Main Sections of a Tori line:

Vessel Attachment – This height is crucial in order to increase aerial extent

- **Height:** You are required to suspend the tori line from a point on the vessel at least 5m above the surface of the water and as close to the stern as possible. Ideally it should leave the stern at around 7m+ above the waterline. If necessary, fit a pole to get extra height (for every 1m of extra height above 5m you'll achieve about 7m more aerial extent).
- **Weak link/ breakaway system:** fit a weak link at the attachment point so that the tori line will break off at your weak link, or before the tori line 'spools off' your gear. Use a lazy line back to the deck so that you can regain control of the vessel end of the tori line if/when it breaks. If the tori line breaks or is lost, you need to redeploy another before setting any further gear.

Aerial Streamer section – Suitable materials make a difference

- **Backbone:** This is the main part of the tori line which supports the streamers, the aerial extent 'backbone section' needs to be at least 50m to 60m long from the stern and you need to maintain a minimum 50m in the air, when fishing during high risk periods. Choose a material that is light-weight, durable and braided as it twists less.
- **Streamer materials:** Must be brightly coloured, suitable/durable, rigid, stiff, strong materials such as rubber tubing, tape, or cord, attached in a way that prevents streamers from wrapping around the backbone and tangling with each other
- **Streamer placement:** Must have streamers fitted at maximum of 5m intervals, along the aerial extent section, beginning not more than 5m from the stern of the vessel.
- **Streamers may be shortened:** along the first 15m of the streamer line to reduce tangling with the setting hooks as long as these are not shorter than 1m. The rest of the streamers need to reach down near the water surface (in calm conditions) along the aerial extent.
- **Do a test deployment:** Trim each longer streamer to suit your deployment height. In calm conditions the streamers must reach down close to the surface, but ensure most of the time they are in the air and not the water (streamers in water are more likely to tangle with setting hook line, reduce aerial extent and can even tangle birds)

Drag Section - Drag section is crucial in order to increase aerial extent

- **Drag object:** A length of rope (braided rope materials twist less) or mono or an object like a cone or float, (or a combination of both) fitted to the end of the aerial streamer section. It needs to provide enough drag to maintain the streamer section to the required 50m aerial extent during high risk periods.
- To achieve 50m to 60m plus of aerial extent Sea-trials have shown a tori line deployed from a height of:
  - 5m to 6m (at around 5kn) requires about 30m to 50m of 9mm braid (500L) with either gill net-floats placed every few metres on the drag rope and a small road cone or buoy etc at the end to act as a drogue.
  - 8m to 10m, (at around 3kn to 4kn), required about 60+m of 9mm braid (500L) plus a short length of mooring rope or road cone or a float etc at the end to act as a drogue.

For more advice: Contact your local BLL Liaison Officer, listed in your Protected Species Risk Management Plan

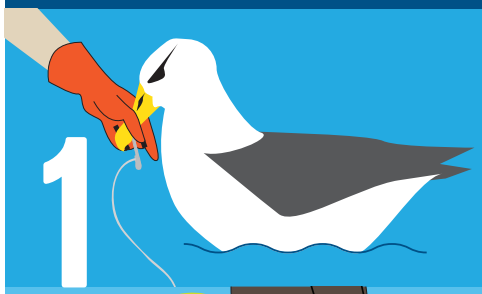
HOOK REMOVAL FROM SEABIRDS

Agreement on the Conservation of Albatrosses and Petrels

Release Kit

ACAP

Visit www.acap.aq for more information



1 Bring bird aboard

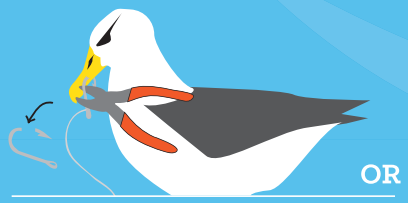
If possible, slow or stop hauling and slow or stop vessel to release line tension. If practical, use a landing net to lift small birds on board, otherwise retrieve the bird on the line as safely and quickly as possible. When within reach, grab it by the bill. Never grab the wing.

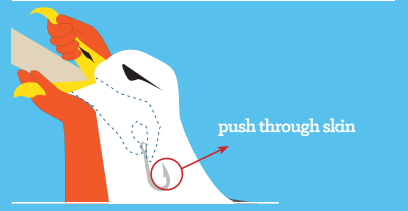
2 Restrain bird and hold securely

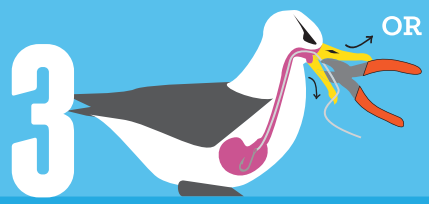
Carefully fold the wings into the bird's body. Wrap the bird in a towel/blanket (not too tightly) and cover the eyes if possible. Make sure the bird doesn't come into contact with oil on deck.

For large birds that you cannot manage under your arm, restrain the bird securely between your legs without squeezing. Hold the bill gently shut but do not cover the nostrils.

If the bird vomits, loosen hold on bill so the bird does not suffocate.





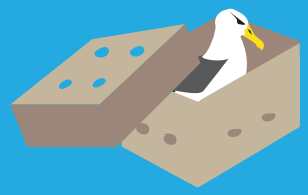


3 Remove the hook

If the hook is visible
Use pliers (or bolt cutters for large hooks) to cut through the hook shaft (or to flatten the barb). Pull the hook back out of the bird.

If the hook is swallowed and removal is possible
A second person can find the hook position externally by feeling along the neck or internally by following the line to the hook. Gently force the tip of the hook so that it bulges under the skin of the bird (for large birds, this may be easier if you reach down the bird's throat and hold the hook). If you can get a good grip on the hook, push the tip of the hook though the skin and remove. Never try to extract the hook backwards

If hook removal is not possible
Either because removing the hook will cause further damage to the bird or the hook is too deeply ingested, cut the line as close to the hook as possible and leave the hook in the bird.



4 If the bird is exhausted or waterlogged

If possible, place in a ventilated box or bin in a quiet, dry, shaded place to recover for an hour or two. Otherwise, contain bird in a quiet dry area, away from oil. The bird is ready for release when the feathers are dry, bird is alert and able to stand.

5 Release the bird

If the bird is strong and mostly dry, release it onto the water (but clear of the vessel) immediately after hook removal. Having again first grabbed the bill, lift and slowly lower the bird onto the water letting go of the bill last.

Where birds cannot be lowered directly onto water, lift and release the bird from the side of the vessel into the wind letting go of the bill at the same time. The bird may remain on the water for some time after release.

ACAP

January 2019

HOOK REMOVAL FROM SEABIRDS Visit **www.acap.aq** for more information

Fisheries (Seabird Mitigation Measures—Bottom Longlines) Circular 2025 (Notice No. MPI 1915)

Circular

This circular is issued under Regulation 58A of the Fisheries (Commercial Fishing) Regulations 2001.

1. Title

This circular is the Fisheries (Seabird Mitigation Measures—Bottom Longlines) Circular 2025 (Notice No. MPI 1915).

2. Commencement, Application and Revocation

1. This circular comes into force on **15 February 2025**.

2. This circular applies to the operator or master of a vessel whose responsibilities for compliance are described in regulation 58B of the Fisheries (Commercial Fishing) Regulations 2001.

3. This notice revokes and replaces the Fisheries (Seabird Mitigation Measures—Bottom Longlines) Circular (No.2) 2021 (Notice No. MPI 1375) issued on 7 September 2021.

3. Interpretation

1. Any term used in this notice that is defined in the Fisheries Act 1996 or the Fisheries (Commercial Fishing) Regulations 2001 has the same meaning as that in the Act or Regulations.

2. In this circular, unless the context otherwise requires,

Act means the Fisheries Act 1996;

Aerial extent means the section of the streamer line backbone running from the vessel stern to where the backbone of the streamer line enters the water;

Area A means all that area of New Zealand fisheries waters within fisheries management area 6 – sub-Antarctic, south of a line:

a. starting at a point at 46°S and 176°E; then
b. proceeding in a straight line in an eastern direction to 178°W; then
c. proceeding in a straight line due south at 178°W to 49°S; then
d. proceeding in a straight line due west at 49°S to 176°E; then
e. proceeding in a straight line due north at 176°E to 46°S.

Bottom longline means a line to which 7 or more hooks (whether baited or not) are attached, and is sunk using weights;

Hauling means the period from when line retrieval commences to when all the hooks are onboard;

Hauling mitigation device is any device that physically deters or blocks seabirds from flying or swimming directly into the area where lines are being hauled, without causing harm to birds;

High risk period means during daylight hours (between 0.5 hours before nautical dawn and 0.5 hours after nautical dusk) or during a full moon and three days either side of a full moon;

Nautical dawn means the time at sunrise when the centre of the sun is at a depression angle of 12 degrees below the ideal horizon for the location of fishing;

Nautical dusk means the time at sunset when the centre of the sun is at a depression angle of 12 degrees below the ideal horizon for the location of fishing;

Offal means parts of a fish that are usually discarded, including minced parts;

Set, in relation to a bottom longline, means releasing the bottom longline into the water;

Streamer line means a type of seabird-scaring device, also known as a tori line.

4. Streamer Line Required

1. Any vessel seven metres or greater in overall length using bottom longlines as a method of fishing must:

a. carry a streamer line on board the vessel; and
b. permit inspection of the streamer line at any reasonable time by a fisheries officer or an observer.

2. Vessels which exclusively use the method of Dahn lining are not required to carry a streamer line.

5. Use of Streamer Line Required During Setting of Bottom Longlines

1. A streamer line must be used on vessels seven metres or greater in overall length during the setting of bottom longlines, in accordance with clause 6.

2. Vessels using the method of Dahn lining are not required to use a streamer line.

6. Streamer Line Specifications

1. For vessels utilizing automatic baiting machines, and those 20 metres or greater in overall length, the streamer line must meet the following specifications:

a. the streamer line must be attached to the vessel so that when deployed the baits are protected by the streamer line, even in a crosswind; and
b. the streamer line must be a minimum of 150 metres in length; and
c. the streamer line must achieve a minimum aerial extent of 50 metres when fishing during high risk periods; and
d. streamers must be brightly coloured; and
e. streamers must be spaced at a maximum of five metres apart, beginning not more than five metres from the stern of the vessel and extending along the full aerial extent of the line; and
f. when deployed, each of the streamers must reach the sea surface in the absence of wind and swell. Streamer length will therefore vary depending on the height of their attachment point above the water; and
g. despite subclause 1(f), streamers may be shortened along the first 15 metres of the streamer line, however streamers must be maintained at a minimum length of one metre;
h. the streamer line must be suspended from a point on the vessel at least five metres above the water in the absence of swell.

2. For vessels that are seven to 20 metres in overall length, the streamer line must meet the following specifications:

a. the streamer line must be attached to the vessel so that when deployed the baits are protected by the streamer line, even in a crosswind; and
b. the streamer line must achieve a minimum aerial extent of 50 metres when fishing in high risk periods; and
c. streamers must be brightly coloured; and
d. streamers must be spaced at a maximum of five metres apart, beginning not more than five metres from the stern of the vessel and extending along the full aerial extent of the line; and
e. when deployed, each of the streamers must reach the sea surface in the absence of wind and swell. Streamer length will therefore vary depending on the height of their attachment point above the water; and
f. despite subclause 2(e), streamers may be shortened along the first 15 metres of the streamer line, however streamers must be maintained at a minimum length of one metre;
g. the streamer line must be suspended from a point on the vessel at least five metres above the water in the absence of swell.

3. The specifications in subclauses (1) and (2) do not apply to additional or secondary seabird-scaring devices fishers may choose to use (such as a second tori or streamer line).

7. Restrictions on Use of Bottom Longlines

1. A bottom longline must not be set in New Zealand waters to take fish, aquatic life, or seaweed unless line weighting is used in accordance with clause 8.

2. A bottom longline must not be set to take fish, aquatic life, or seaweed between 1 November and 31 May in FMA 6 unless using an integrated weighted line with a lead core of at least 50 grams per metre.

3. Clause 7(2) does not apply to the vessel Te Runanga– 901489 while fishing within Area A.

8. Line Weighting

1. Bottom longlines must be weighted such that the slowest sinking hook can be demonstrably shown to reach a depth of five metres within the aerial extent of the streamer line under clause 6.

2. Sink rates must be measured at regular intervals (at least once per calendar month or when gear setup significantly changes) via bottle tests or time-depth recorders and the results documented and retained on the vessel for a minimum of one year. These records must be made available to fisheries officers and observers upon request.

3. Vessels that exclusively use the method of Dahn lining are not required to weight lines in accordance with subclause 1.

9. Restriction on Discharge of Offal or Fish While Setting and Hauling Bottom Longlines

1. Offal or fish must not be discharged during setting of bottom longlines.

2. Offal or fish may be discharged during the hauling of bottom longlines, but only from the side of the vessel that is

opposite to the side on which the hauling station is located.

3. Subclause (1) does not apply to:

a. fish that are legally undersize; or
b. fish that are listed in Schedule 6 of the Act and that are likely to survive.

4. Despite subclause (2), during the hauling of bottom longlines,

a. Patagonian toothfish may be discharged on the side of the vessel on which the hauling station is located; and
b. Any live fish and those whole dead fish greater than 30cm in (fork) length that can legally be discarded may be discharged on the side of the vessel on which the hauling station is located if a hauling mitigation device is deployed.

10. Restrictions on Use of Bottom long lines by Vessel Te Runanga

1. This clause applies to Te Runanga – 901489 when it is fishing in Area A.

2. A bottom longline must not be set to take fish, aquatic life, or seaweed between 1 November and 31 May unless the entire bottom longline is set at night – that is, during the period of time between half an hour after nautical dusk and half an hour before nautical dawn the next day.

11. Schedule

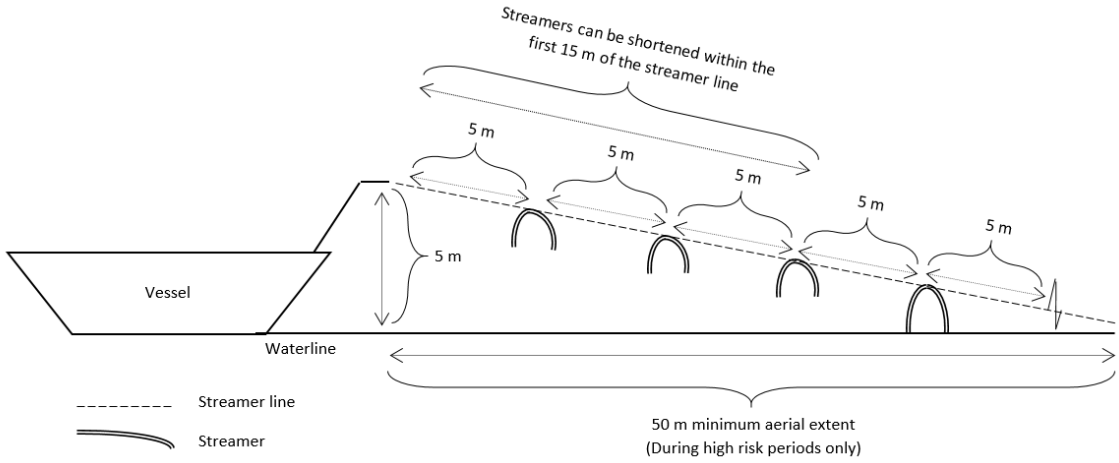
1. The Schedule provides further guidelines on the design and deployment of streamer lines as seabird-scaring devices.

2. The Schedule is not part of the specifications.

3. If there is any inconsistency between the guidelines in the Schedule and the specifications, the specifications prevail.

Schedule

Seabird scaring device (streamer line)
Diagram not to scale
Not all specifications illustrated



1. The streamer line needs to protect baited hooks from seabirds. This means that the streamer line should be positioned in such a way that streamers are flapping in an unpredictable fashion, above the area in which the baited hooks enter the sea, so that seabirds are deterred from attempting to take bait from the hooks. In order to achieve this even during cross-winds, it is expected an operator or master of a vessel will have to make adjustments to the configuration of the streamer line depending on the conditions.

2. It is generally recognised as best practice to maximise the aerial extent of the streamer line, because this maximises the area in which the baited hooks are protected from seabirds. Best practice would be to achieve an aerial extent of 100 metres or more. In order to maximise aerial extent, it is necessary to create tension in the streamer line. This can be achieved by:

- towing an object on the terminal end of the streamer line; or
- towing extra length of streamer line; or
- increasing the diameter of the in-water section of the streamer line.

3. In order to be effective at scaring seabirds away from the line of baited hooks, the streamer lines should not become tangled, either with each other or with the backbone. Each streamer shall be attached to the streamer line in a manner to prevent fouling of individual streamers with the streamer line, and to ensure individual streamers reach the waterline in the absence of wind or swell (except within the first fifteen metres where streamers can be shortened). Swivels or a similar device can be placed in the streamer line in such a way as to prevent streamers being twisted around the streamer line. Each streamer may also have a swivel or other device at its attachment point to the streamer line to prevent fouling of individual streamers.

4. Streamers are to be spaced at five-metre intervals along the aerial extent of the line. The total number of streamers in use will vary depending on how the line is configured. Streamers that are hanging in the water can be prone to tangling. Because the far end of the streamer line will frequently be in the water, it may not be desirable to have streamers the whole way down the line. However, it is important that streamers are present to deter birds from taking baited hooks all along the part of the line that remains above water, as outlined in the specifications.

5. To ensure streamers are visible to birds, they should stand out against the surroundings. Streamers should be made of brightly coloured fluorescent plastic tubing or other material. Bright colours such as red, yellow, orange, or pink are most effective during day setting. For night setting, the streamers should be of a colour that contrasts with the surroundings. Colours such as blue and green are less likely to be effective, because they are less likely to be highly visible to birds.

6. A complete additional streamer line should be carried as a spare.

Dated at Wellington this 10th day of February 2025.

EMMA TAYLOR, Director Fisheries Management, Ministry for Primary Industries (acting under delegated authority).

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Fisheries New Zealand
Tini a Tangaroa

Department of Conservation
Te Papa Atawhai

Seabird Bycatch Mitigation Standards Guide
Bottom Longline (hand baiting)

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.

Legal Requirements- *Fisheries (Seabird Mitigation Measures- Bottom Longlines) Circular (No. 2) 2021*

1. **Deploy a legal tori line for the duration of ALL setting events.**
2. **Tori line length is a minimum of 150m for vessels greater than or equal to 20m length overall.**
3. **Tori line achieves an aerial extent of 50m when fishing in high-risk periods.**
4. **Tori line streamers are brightly coloured and spaced ≤5m apart along the entire aerial extent.**
5. **Weight lines to achieve a 5m sink rate depth before the end of the tori line aerial extent.**
6. **Discharge of offal or fish during setting is not permitted *(see Circular for exceptions)*.**
7. **Discharge of offal or fish during hauling is only permitted from the side opposite to the hauling station *(live fish or dead fish larger than 30cm may be returned on the hauling side, only if a hauling mitigation device is used).***

'Best Practice' Mitigation Methods

1. **Control the discharge of fish waste**
   - No discharging of fish waste immediately before or during setting.
   - During hauling, either hold or batch discharge fish waste at intervals of no less than 30 minutes.
   - During hauling, retain all used bait on board until hauling has finished.
   - Return live fish (meeting legal requirements) to the sea as soon as practicable.
   - 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. **Minimise seabird access to baited hooks during setting**
   - Use a 'fit and proper' tori line that can be adjusted over the hook-bearing line to suit varying conditions.
   - During low-risk periods, weight lines to achieve a 5m depth before the end of tori line aerial extent.
   - During high-risk periods, weight lines to achieve a 10m depth before the end of tori line aerial extent.
   - Carry a second (back-up) tori line and sufficient materials onboard to effect repairs when necessary.
   - Use sufficiently thawed bait.
3. **Minimise seabird access to hooks during hauling**
   - Minimise the time hooks are at or near the surface of the water. Haul as quickly as practicable.
   - Implement hauling mitigation measures, device(s) and/or vessel manoeuvres when appropriate.
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.

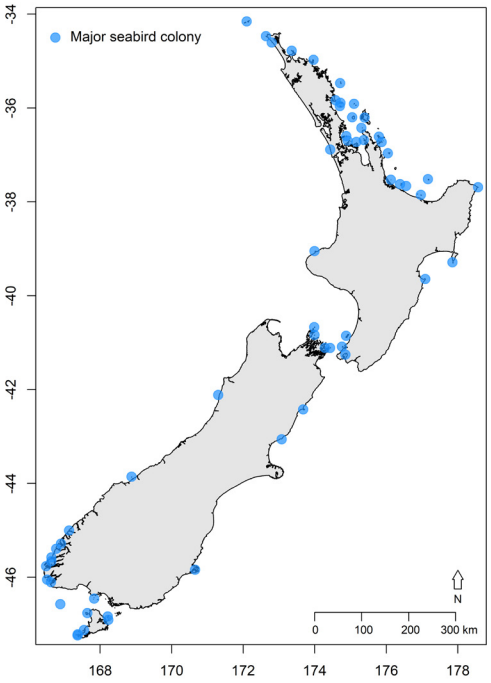
What can you do to help seabirds?

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

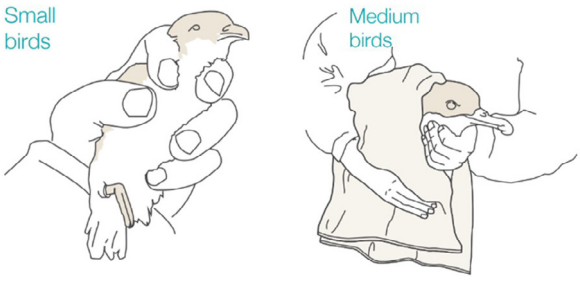

Black-bellied Storm Petrel


Common Diving Petrel

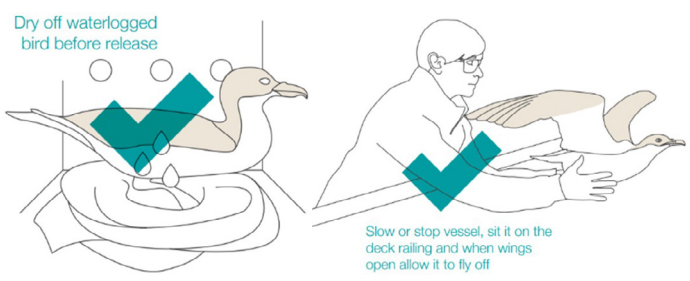
Shearwaters and petrels (including diving petrels, storm petrels and prions) are particularly susceptible to vessel strikes. *Photos: Oscar Thomas*

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

Fisheries New Zealand
Tini a Tangaroa

Protected Species Information for Commercial Fishers

Tākoketai/Black Petrel

Where are black petrels?

Breeding location: Tākoketai/Black petrel breed only in New Zealand. There are two remaining breeding colonies found in the Hauraki Gulf on Aotea/Great Barrier Island and Te-Hauturu-o-Toi/Little Barrier Island.

Breeding time: Tākoketai/Black petrel breed from October through to June each year. When they are not breeding, they migrate to South American waters to forage and feed.

Foraging distribution: Tākoketai/Black petrels forage and feed in the entire inshore area of the East Coast of the North Island from Mahia to Kaitaia. Their distribution is focused on deeper water near the continental shelf, with concentrations found closer to Great Barrier Island where they breed. Offshore they extend and are found on the East and West of the North Island.

How to recognise black petrels

Tākoketai/Black petrels are black or very dark brown, with black feet. The bill is pale yellow with a black tip and a distinctive double tube nostril on top.

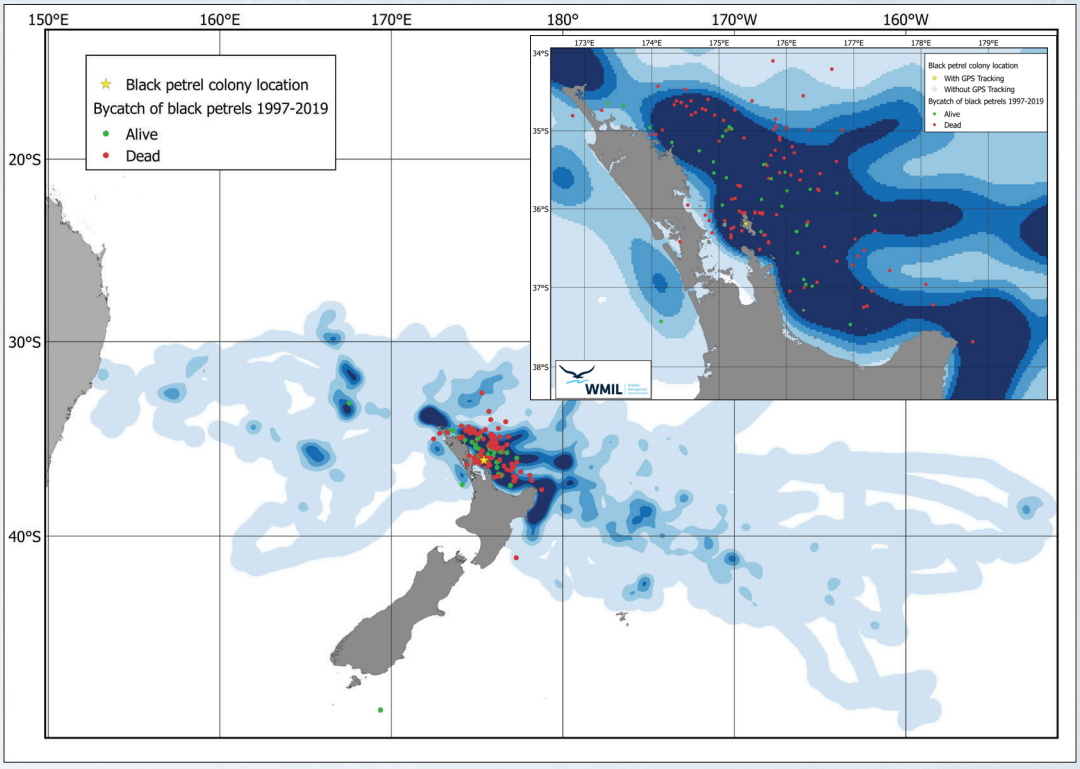
Distribution Map:

The distribution map shows where Tākoketai/black petrels 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.

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.

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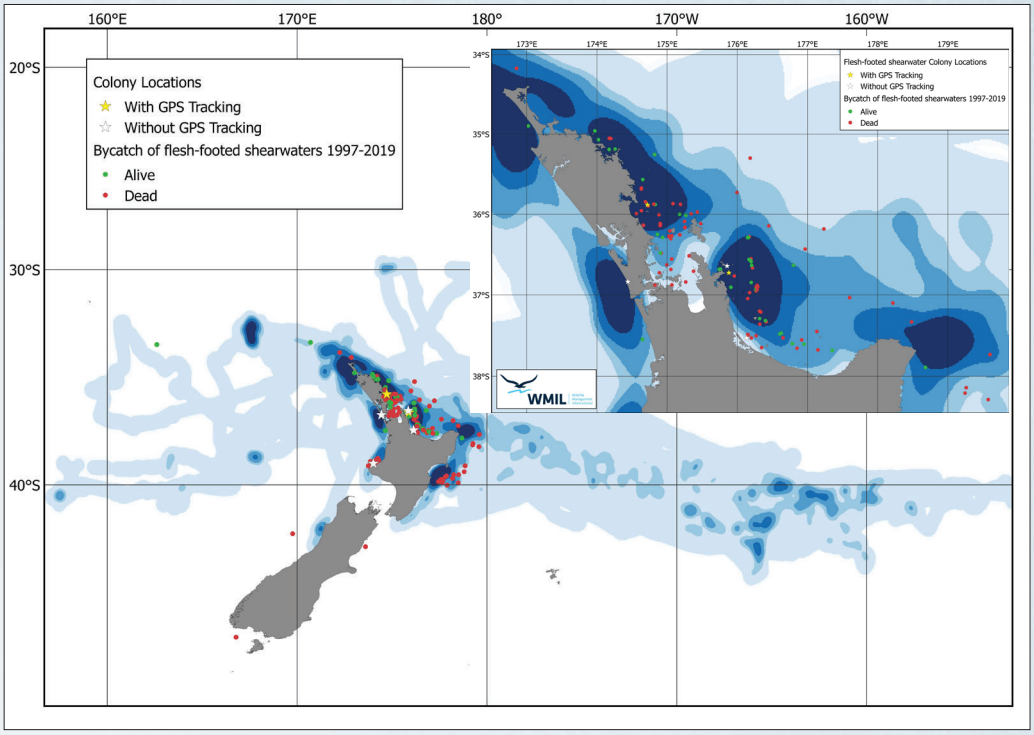

For more information on what to do when you have caught a bird, please refer to your Operational Procedures for Protected Species Risk Management document.