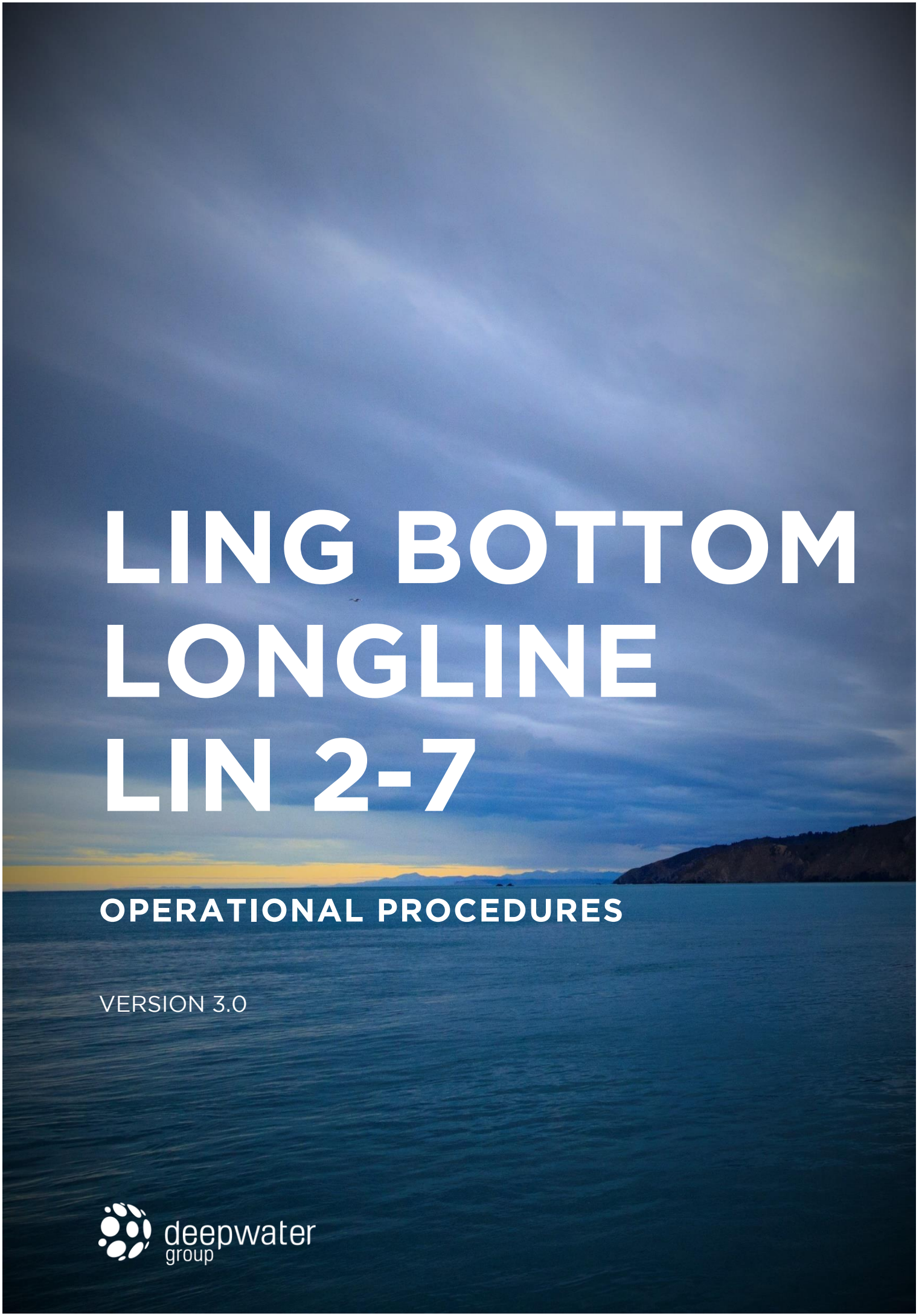

LING BOTTOM LONGLINE LIN 2-7

OPERATIONAL PROCEDURES

VERSION 3.0

deepwater group

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PART 1: INTRODUCTION

The following Operational Procedures (OPs) stipulate the management measures agreed between Deepwater Group Ltd (DWG) shareholders owning LIN 2-7 quota and Fisheries New Zealand. They are implemented and administered by DWG.

These procedures apply to all longline vessels targeting ling stocks LIN 2-7.

***Disclaimer**: These OPs do not replace or override any fisheries legislation or any other regulations including Health & Safety and Maritime Safety. Vessel operators should ensure that officers and crew understand all regulations that are in place for the fisheries, areas and environment that they are operating in.*

Background to these procedures

The ling bottom longline fishery (LIN BLL) has had observed and estimated incidental captures of seabirds. At times these events are significant in number or species of bird caught, with an estimated total of 800-1,000 seabirds caught annually by this fishery. In 2006-07 the then Ministry of Fisheries regulated demersal longline fishing specifically to manage seabird risk. It is known that ongoing management, monitoring and improvement is required to continue to reduce these risks.

The characteristics of ling longline fishing which can increase the risk of incidental captures are:

- Setting large numbers of hooks (20-30 million per annum) and from 3,000 to 30,000+ per vessel per day
- Attraction of birds to baited hooks or other attractant near hooks
- Fishing grounds and seasons in some areas known for high seabird numbers and foraging activity.

National Plan of Action-Seabirds (NPOA-Seabirds)

The National Plan of Action to reduce risk to seabirds in New Zealand fisheries (NPOA-Seabirds) sets the management approach. It is drafted in accordance with the requirements of the Agreement on the Conservation of Albatrosses and Petrels (ACAP), to which New Zealand is a signatory.

The NPOA-Seabirds seeks to ensure that effective mitigation methods are applied in New Zealand fisheries, acknowledged risk reduction methods are applied as appropriate, and actions to manage risk to seabirds are prioritised based on the level of risk faced by particular seabird species and posed by the various fishery sectors.

Through Fisheries New Zealand a spatially explicit risk-assessment is used to assess the risk to seabird species from particular fisheries. Currently about 10 species are assessed to be in a high-risk category and therefore need continued attention. Several of these species with high risk scores have been observed captured in the ling longline fisheries, notably Chatham, Buller's, white-capped and Salvin's albatross. White-chinned petrels and sooty shearwaters are also of particular concern due to the relatively high numbers of captures.

These OPs have been established so that agreed and required management measures are clearly communicated to and understood by vessel captains, vessel managers and ACE providers.

Objectives of these procedures

The objectives of these OPs are to ensure that:

- Risks to seabirds from longlining are mitigated and reduce seabird captures
- Every vessel has robust, documented and easy-to-follow seabird mitigation procedures in place that meet all mandatory and DWG-required mitigation measures
- Mandatory measures are understood and are adhered to
- Through implementing these OPs the vessel crew is actively involved in seabird mitigation measures and improvements.

Status of these procedures

These OPs came into effect in 2016 and remain so.

Application of these procedures

These OPs apply to:

- All companies and vessels targeting ling (LIN 2-7 stocks) by bottom longline.

Other key operational documents or rules & regulations

These OPs are to be used in conjunction with, but do not replace or override, the following:

- Fisheries (Seabird Mitigation Measures – Bottom Longlines) Circular 2018 (the Regulations) (http://www.legislation.govt.nz/regulation/public/2018/0116/latest/whole.html)
- Regulations pertaining to processing of sharks
- Maritime Safety, Navigation and Pollution regulations and requirements
- Wildlife Protection Act 1953 and Animal Welfare Act 1999
- All relevant laws and regulations pertaining to fisheries activities in New Zealand waters.

PART 2: RISK

Seabirds are attracted to setting of baited hooks, loose bait, offal and discards from the vessel or whole fish on the hauling line. Once attracted, they are at risk of injury from the gear or drowning.

Risk to seabirds is driven by three main factors which can occur alone or together:

1. **Food attractant:** offal, waste, bait discards, fish on the hauling line
    - The more food, the more birds around the vessel, increasing the risk of captures
2. **Fishing area and calendar period:** increased seabird numbers and aggressive feeding
    - During periods of high bird numbers (e.g. breeding season, migration periods or moon periods) the feeding behaviour becomes more aggressive and competitive, increasing the risk of captures

3. **Baited hooks during line setting:**
    - Seabirds are attracted to baited hooks during line setting and are either beak-hooked or get foul-hooked when baits come off or become entangled in the line
    - The risk increases the longer the hook is on or near the surface and is made worse by poor sink rate (e.g. if there is not enough line weighting, there are floats on the gear or if the vessel is moving too fast)
    - Risk is also increased if the tori line is poorly designed or deployed and does not provide adequate cover over the gear when setting.

Managing risks associated with these three factors at a vessel-level will help minimise interactions and reduce the incidental captures of seabirds.

Table 1: Main seabird species at risk from LIN BLL fisheries

SEABIRD SPECIES	RISK AREA	RISK TIME	RISK PROFILE
Salvin's albatross	Chatham Rise & Bounty	Aug-May	Second highest risk bird in NPOA Risk Assessment; threat classification 'nationally critical'; aggressive feeder around vessels
Chatham albatross	Chatham Rise	Aug-May	High risk classification within NPOA Risk Assessment; aggressive feeder around vessels; small population
White-chinned petrel	Chatham Rise, Snares, Solander Island, Keyhole & Sub-Antarctic	Year round, particularly aggressive during full moon	Most frequently caught bird; very numerous, a strong diver & aggressive feeder around vessels; particularly aggressive during full moon
Sooty shearwater	Snares & Solander Islands	Spring, summer and autumn	High numbers; strong diver

PART 3: MANAGING RISK

Hauling stations

During hauling, seabird captures have been observed as birds attack returning baits. While less risk than setting, seabird mitigation measures should be in place at the hauling station:

- Hose spray is often enough to deter seabirds from the area
- A seabird mitigation device can be fitted around the hauling station on larger vessels; brickle curtains are often used for this purpose and are very effective. For more information call DWG Environmental Liaison Officer (ELO).
- Used bait and all fish waste should be held for as long as possible and/or discharged on the other side of the vessel from the hauling station
    - Operational practices to minimise the amount of time hauled hooks remain at or near the surface (e.g. adjusting haul speed or hauling as close to the vessel as possible).

Thawing of bait

- The use of totally frozen bait is to be avoided as it floats more than when thawed
- Bait must be taken out of the freezer or ice for several hours before setting
- Partially frozen bait works well as it is firm when cut up and hooked.

Lighting

- Bright spotlights shining back over the stern well behind the vessel onto the hook setting line should be either off, replaced with lower light output or shielded from shining on the longline
- Deck lighting around stern should be dimmed during night-time setting while maintaining required safety standards for vessel and crew.

High risk periods

Full moon

During full moon periods, seabirds (especially diving birds) can enter a feeding frenzy leading to very high capture rates.

Mitigation options include:

- Increasing line sink rate, e.g. add weight and/or remove floats and/or reduce setting speed (noting that reduced setting speed may mean adjusting tori line drag to maintain aerial extent)
- Adding another streamer line
- Moving from the fishing area
- On rare occasions, switching to day-time setting can reduce capture rates (remember to meet line weighting regulations).

Multiple captures while setting the gear

- Take immediate action to reduce the risk of multiple captures reoccurring
- Contact vessel manager and/or DWG Environmental Liaison Officer for advice and report seabird triggers (as advised below in Part 4).

Responsibilities of parties

The following outlines the responsibilities of parties to the LIN BLL OPs.

Commitment to these procedures

All DWG shareholders owning LIN 2-7 quota and ACE, and owners or operators of vessels in these ling bottom longline fisheries, are required by DWG to support and adhere to these OPs.

Vessel owner and operator responsibilities

All vessel owners and operators must ensure that:

- Officers and crews of all bottom longline vessels targeting ling stocks LIN 2-7 in FMAs 2-8 are aware of and act in accordance with the requirements of these OPs
- Fishing operations meet mandatory requirements as set out in the Regulations and best practice standards
- Key crew are briefed on these OPs and fully understand the actions required

- Ensure new (or relief) managers or captains receive proper handover of these OPs and advise DWG so refreshers can be undertaken if needed
- Key crew are aware of seabird activity around the vessel, assess the risks and take action to minimise these risks
- The vessel is either night fishing or carrying sufficient weights to maintain line weighting procedures to mandatory requirements
- The vessel is supplied with tori line and sufficient parts to maintain and repair tori line in the event of loss or damage
- Mitigation devices are deployed and adjusted to best suit weather, fishing gear and operations, and fish and bait waste discharge conditions to minimise risk
- Auto-line baiting machine is maintained to best practice standards to ensure baiting levels are +95%
- Display a copy of the "Ten Commandments for Ling Longliners to Save Seabirds" (see Appendix 1) on the bridge
- Correct reporting to Fisheries New Zealand and to DWG, and that trigger reports are sent to DWG in real time
- The DWG Environmental Liaison Officer is contacted as required for information or support
- Any required corrective action is undertaken
- Crew meet their responsibilities below.

Vessel crew responsibilities

All vessel crews must:

- Ensure all fishing practices and mitigation meet mandatory requirements
- Fish at night or line weight to mandatory standards
- Operate an offal control system to ensure no discharge of offal and fish waste occurs when setting, and that offal and fish waste is discharged in batches on the opposite side from the hauling station during hauling
- Hold used baits and batch discharge to ensure no continuous or ad hoc discharge of offal and fish waste occurs when fishing
- Carry and deploy a vessel-specific tori line that meets the required standards, as well as carry spare parts to rebuild or replace tori line if damaged or lost
- Tori lines are deployed and adjusted to best suit the weather, fishing gear and operations, and fish waste discharge conditions to minimise risk
- Handle captured seabirds safely and carefully, returning all seabirds to the sea (unless requested otherwise by Fisheries New Zealand Observer) as per best practice
- Report triggers to DWG and report captures via Fisheries New Zealand Electronic Reporting System (ERS) or paper form NFPSCR.

DWG Environmental Liaison Officer's responsibilities

- The DWG Environmental Liaison Officer will review each vessel's adherence to these OPs during any vessel visit and crew briefings, as well as providing feedback from any Fisheries New Zealand Observer audit
- The aggregated outcomes of these audits, and the number of issues that arise each fishing year, are publicly reported by Fisheries New Zealand in its Annual Review Report (noting

that individual vessel details are confidential to the operator, DWG and Fisheries New Zealand).

Mandatory Fisheries New Zealand seabird mitigation requirements

Summary

Fisheries New Zealand implemented regulatory requirements for seabird risk mitigation. These standards are required to be met as described by the Regulations. DWG provides guidance below on best practice to meet and implement these requirements on your vessel and has also produced a summary guide to the Regulations.

You should have a full copy of the Regulations on board and understand them. The points below are clearly written in the Regulations (see http://www.legislation.govt.nz/regulation/public/2018/0116/latest/whole.html).

Streamer (tori) lines: Streamer lines must be deployed day and night during setting and meet design specifications.

Night setting: BLL vessels must set BLL only at night, unless line weighting (in accordance with mandatory requirements) is employed. Night setting means between the 0.5 hours AFTER nautical dusk to 0.5 hours BEFORE nautical dawn.

Line weighting: Line weighting (in accordance with mandatory requirements) is required for day setting.

Offal and fish discharge: Offal or fish may only be discharged during hauling provided it is discharged from the opposite side on which the hauling station is located. Note there are waivers for Schedule 6 of the Fisheries Act 1996 (http://www.legislation.govt.nz/act/public/1996/0088/latest/DLM401761.html#DLM401761) or sub-Minimum Legal Size (MLS) fish during HAULING only.

Tori lines (also see Regulations where tori lines are described as streamer lines)

Tori lines are regarded as one of the most effective mitigation measures. **All vessels 7 m or longer in overall length must deploy a tori line during setting.**

Common names of parts of a tori line

- A tori line consists of a **backbone** that attaches to the vessel,
- has **streamers** hanging from it and has a drag on its seaward end (streamers are the coloured droppers to deter birds),
- and a **drag object** which keeps the line under tension and holds streamers up out of the water.

For vessels 7-20 m LOA the tori line must also meet the following minimum specifications

- The tori line must achieve a minimum aerial extent of 50 m
- It must be attached at a point no less than 5 m above the waterline
- The streamers must be brightly coloured, be spaced a maximum of 5 m apart, and extend along the entire aerial extent of the line
- The first streamer must be no more than 5 m from the stern of the vessel

- The tori line must be attached to the vessel at least 5 m above the waterline and the streamers must reach the sea surface; streamers will therefore vary in length along the line
- For vessels over 20 m**,** the tori line must be a minimum of 150 m in overall length.

Best practice for tori lines

Achieve around 60-70 m of aerial extent using a three-part system (see Appendix 2: BLL Tori Line Design Guide).

1. Vessel attachment:
    - Tori line placed as high as possible and recommended 7-8 m above waterline
    - Depending on the position the gear is shot away from, you need to be able to adjust or move the tori line or use a bridle place tori in best spot relative to fishing gear
    - A breakaway system should be fitted so the tori line will break free before fishing gear breaks or tangles
2. Streamer aerial section:
    - Backbone of the tori line with minimum of 10-12 sets of streamers spaced at 4 m or 5 m intervals
    - Depending on height (off water) of each streamer line, reduce length of each streamer by approximately 30 cm / 50 cm going down the backbone
    - Once deployed (without the setting gear) the first time, trim streamers to meet the water in average conditions but not remain in the sea to reduce drag, tangling gear and birds (i.e. so streamers in the air not in the water)
3. Drag section:
    - Can be either a float(s) or rope or mono
    - If the vessel is over 20 m length, the whole tori line must be 150 m long. For vessels under 20 m, recommended is 80 m to 100 m long with either rope, float (or both) or mono for drag.
4. Adjust tori line to best suit weather, gear and processing conditions to minimise risk during periods of high seabird interactions
5. Tori lines if not deployed or adjusted correctly often tangle with setting gear. To reduce this maintain height separation for as long as possible between the tori line and setting gear:
    - Fix the tori line as high as possible to vessel (every 1 m height will give you 8-10 m more aerial extent)
    - Increase the drag (most tori lines don't have enough drag) by increasing size, length or weight of drag object
        - Trade-off: Either mono or very long length of small diameter rope (placed on reel etc) which is less likely to snag with the setting gear but at least 100 m is required to provide enough drag versus adding a float(s) to end of a shorter (20-30 m) larger diameter (12-14 mm) rope. Trial and error is required as to what suits best
    - Keep streamers out of the water. Only the last section of the backbone without streamers should be in the water back to the drag object
    - Fit a breakaway (weak link) so if a tangle occurs the tori line breaks at the weak spot, then there is no damage to other gear. Have a lazy line back to deck so you regain the vessel end of the tori line and retrieve it.

Line weighting measures (also see Regulations)

If setting during daylight hours (see Regulations for detail of day and night), the line must meet the following specifications:

- The mainline is integrated weighted line (IWL) with a lead core of at least 50 g/m; OR
- If the mainline is 3.5 mm in diameter or greater – a minimum of 4 kg of metal weight (or 5 kg of non-metal weight) must be attached to every 60 m of mainline that has hooks attached; OR
- If the mainline is less than 3.5 mm in diameter– a minimum of 0.7 kg of metal weight must be attached to every 60 m of mainline that has hooks attached
- Floats over 150 mm may not be attached to the hook-bearing line, no more than 3 floats may be attached for every 60 m of line, unless an additional 1 kg of weight is added to the line
- All ropes used to attach weights to the mainline must not be longer than 20 m
- If the surface marker buoy is attached directly to the hook-bearing line (i.e. downlines are not used), no hooks can be attached to the mainline within 30 m of the marker buoy.

Vessels that cannot meet mandatory weighting measures must set at night, with tori lines deployed.

- Night setting is a recommended practice as the visibility of the bait is reduced

Best practice for line weighting and good sink rate (around 0.3 m per second)

- Weight line to achieve satisfactory sink rate so seabirds have less time to target the baited hooks
- In times of heightened risk, add more weight and/or remove some floats
- Using line setters or slowing vessel's setting speed will reduce tension on the setting line and increase sink rate
- Applying weights at regular intervals will help maintain a steady sink rate
- Do not fit single large weights at wide intervals, this will pull down the backbone in one area while floating the rest of the line behind it
- Integrated Weighted Line (IWL) lead core backbone achieves 0.3 m/s sink rate and is considered world's best practice for steady and consistent sink rate.

Best practice for night setting and sink baited hooks while under the protection of the tori line

- Night setting makes it difficult for seabirds to see baited hooks (except full moon)
- Slower setting speeds, weights and line setters all help the mainline sink more quickly (0.3 m/s best practice)
- Mainline diameter and material as well as the distance between weights and numbers of floats can all affect the sink rate
- If it takes ~80-90 m astern of your vessel for your hooks to sink to 5-10 m depth (safe zone), the tori line therefore requires 80-90 m of aerial extent to properly protect baited hooks.

Offal and fish discharge measures (also see Regulations)

The following minimum specifications must be followed:

- During setting, fish waste, offal or fish can never be discharged from the vessel
- The only exceptions are:
  - If the fish are legally undersize (sub-MLS) or
  - The fish is listed in Schedule 6 of the Fisheries Act 1996
- When hauling the line, offal, used bait or whole fish can only be discharged from the opposite side of the vessel to which the line is being hauled.

Best practice for fish waste control

- No continuous or ad hoc discharge of fish waste, all offal/fish waste discharge is to be managed (held and batched) at intervals as well as meeting the mandatory standards above
- Offal should be held (in bins, fish pounds, etc.) for as long as practicable and 'batch' discharged when fishing ceases or, if required, during hauling on the opposite side of the hauling station.

Best practice for bait

- When hauling, used bait must be held and discharged after hauling has ceased
- The automatic baiting machine must be well-maintained to achieve a high baiting percentage (+95%). Baits falling from the machine or off hooks into the water will attract birds to the setting area and is proven to result in foul hooking of birds. High baiting rate will also help your fish catch.
  - Measure baiting percentage by counting (with a shearing tally clicker counter) 100 hooks as they leave on shooting and adding up non-baited hooks.

PART 4: WHEN CAPTURES OCCUR

DWG reporting requirements

Trigger points and vessel action

Trigger points are the DWG capture incident threshold system to trigger real time reporting. Once a trigger point is reached, the vessel captain will notify their vessel manager and DWG within 24 hours (and must monitor the situation more closely and take the steps noted above to manage the increased risk).

DWG trigger points

These are reached when in any 24-hour period seabirds captured and landed dead on deck equal or exceed:

- 3 or more large seabirds (dead albatross or mollymawks)
- 5 or more seabirds (dead petrels, shearwaters, albatross or mollymawks)

Or when in any 7-day period there are:

- 10 captures or more of seabirds of any type (alive and/or dead)

Trigger reports

Report all DWG trigger point breaches in real time (within 24 hours) to admin@deepwatergroup.org. Note these emails are copied directly and immediately to DWG Environmental Liaison Officer (John Cleal) and Richard Wells. The ELO will provide support and may seek additional information for any necessary follow-up.

DWG CONTACTS (AVAILABLE 24/7)	PHONE	EMAIL
DWG (email auto-forwards to John & Richard)		admin@deepwatergroup.org
John Cleal (ELO)	021 305 825	admin@deepwatergroup.org
Richard Wells	021 457 123	admin@deepwatergroup.org

Fisheries New Zealand mandatory reporting requirements

It is not illegal to accidentally capture protected species while commercially fishing, but **it is illegal to fail to report the capture.** It is important that all captures and mortalities are reported accurately. Having an Observer on board does not release the vessel from its reporting obligations. All protected species landed dead or alive (then returned to sea), including deck strikes, must be recorded either via the vessel's ERS or in the *Non-Fish Protected Species Catch Return* form (NFPSCR) and then furnished to FishServe as required under the Reporting Regulations.

Always meet your legal requirements.

"Captures" = birds (and mammals) that have become fixed, entangled or trapped, and are prevented from moving freely or freeing itself (i.e. interactions with fishing gear or tori lines).

"Deck-strikes" = birds which collide with the vessel superstructure or deck and are unable to leave the vessel on their own, either through death, injury or disorientation. Do not report any seabird if it is alive and leaves the vessel unassisted.

Note deck-strikes are not included in the Fisheries New Zealand fishing seabird capture estimates but must be reported.

ERS or NFPSCR reporting codes

- Use the XAL (unidentified albatross/mollymawk) and XXP (unidentified petrels & shearwaters) species codes; if you are 100% sure of the correct species use the individual species codes supplied by Fisheries New Zealand (common species listed in Appendix 3).
- Record any leg band numbers in the ERS field provided or on the form.

Seabird handling/release and crew safety

Release alive

Every care should be taken to release seabirds alive and unharmed. Handling with care to reduce stress and to minimise any further harm or injury to the animal will increase its chances of survival when being returned to the sea.

It is an offence to deliberately harass or harm any protected species and this includes wilfully retaining, damaging, mutilating or removing parts of dead birds.

Beware large birds can inflict a serious bite, it is recommended to use gloves and eye protection.

Bird handling and release

- Keep the bird calm by covering its eyes and head with a cloth. Where possible use two crew. One (Crew 1) to hold and support the bird, and one (Crew 2) to free the bird from the gear.
- Equipment: use line cutter, bolt cutter, pliers, long handle net
- Reduce drag on bird, pull boat out of gear, bring bird on board by hand or with long handle net
- Crew 1: Secure bird by holding wings gently but firmly to the bird's body. Support head, neck etc.
- Crew 2: Isolate tangled gear and or hook, work on removal of gear/hook

Hook swallowed

- Do not pull or place pressure on the line/hook
- Crew 2: Cut the line as close as possible to the swallowed hook, leaving the hook untouched in place.

Hook through body part

- Crew 2: Trim off any line, cut or flatten off the barbs from the hook and reverse the hook out, or
- Use bolt-cutters, cut the hook in two and thread out.

Gear tangled

- Crew 2: Remove line, cut away gear, locate hook, ensure hook free from bird, all gear free form bird.

Return to sea

- If the bird is waterlogged, put it in a safe space (e.g. an empty fish crate, box, or an open, safe area on deck) and let the bird dry out. When the bird is dry or active again, ease the bird back into the water as close to the water surface as possible.
- Release bird carefully; don't throw seabird into air, place back on the water surface or release downwards as close as possible to the sea.

Report capture to bridge/captain

Report the capture to the bridge/captain.

PART 5: AUDIT AND REVIEW

The following outlines the external review requirements for incidental captures and conformance with these OPs.

LIN BLL OP and Fisheries New Zealand Observer review form

During any voyage with a Fisheries New Zealand Observer present, the Observer will review the vessel equipment and performance against the vessel's LIN BLL OP.

The Observer Review Form (Appendix 4) is used to document the assessment of vessel and crews' performance and can be used to identify what to expect during the process.

The review form is completed by the Observer at the end of the voyage and submitted to Fisheries New Zealand. A copy is also sent to DWG for review, who forward this to the vessel operator.

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

If in doubt, talk to the Observer about your performance and address any issues immediately. When the report is good, thank your crew.

The aggregated outcomes of these audits, and the number of issues that arise each fishing year, is publicly reported by Fisheries New Zealand in its Annual Review Report (note that individual vessel details are confidential to the operator, DWG and Fisheries New Zealand).

PART 6: SHARKS

Regulations and practices regarding sharks

- Fisheries New Zealand (previously MPI) introduced further regulations in 2014 regarding sharks
- These regulations are summarised in the Quick Guide and further outlined in the four factsheets (Appendix 5)
- Take every care when releasing live sharks to ensure safety of crew and least harm to the shark.

APPENDIX 1: TEN COMMANDMENTS

TEN COMMANDMENTS

FOR LING LONGLINERS TO SAVE SEABIRDS

1. Ensure your vessel has the current Ling Bottom Longline Operational Procedures (OPs) and bottom longline seabird regulations on board.

2. Ensure tori line meets legal standards, is always deployed when fishing (day & night), is adjustable over the mainline of your gear and carry ample spare parts.

3. As legally required, ensure tori line is correct length for your vessel size, well-constructed, when deployed has min. of 50 m aerial extent and the backbone is fitted with a set of brightly coloured streamers spaced at no more than 5 m intervals.

4. Know the line weighting legal standards. Use integrated lead weighted line (IWL) or for backbone over 3.5 mm add minimum 4 kg metal weight evenly spread over every 60 m of hook bearing line. Confirm your weight regime matches the law for any additional floats.

5. If you're not line weighting in accordance with legal standards, set only at night (i.e. between nautical dusk and dawn) as legally required.

6. Manage the discharge (i.e. no continuous discharge) of offal, fish waste and used bait. You cannot discharge any offal or fish waste while setting.

7. While hauling only discharge offal, fish waste and used bait from the opposite side of the vessel to the hauling station, as legally required.

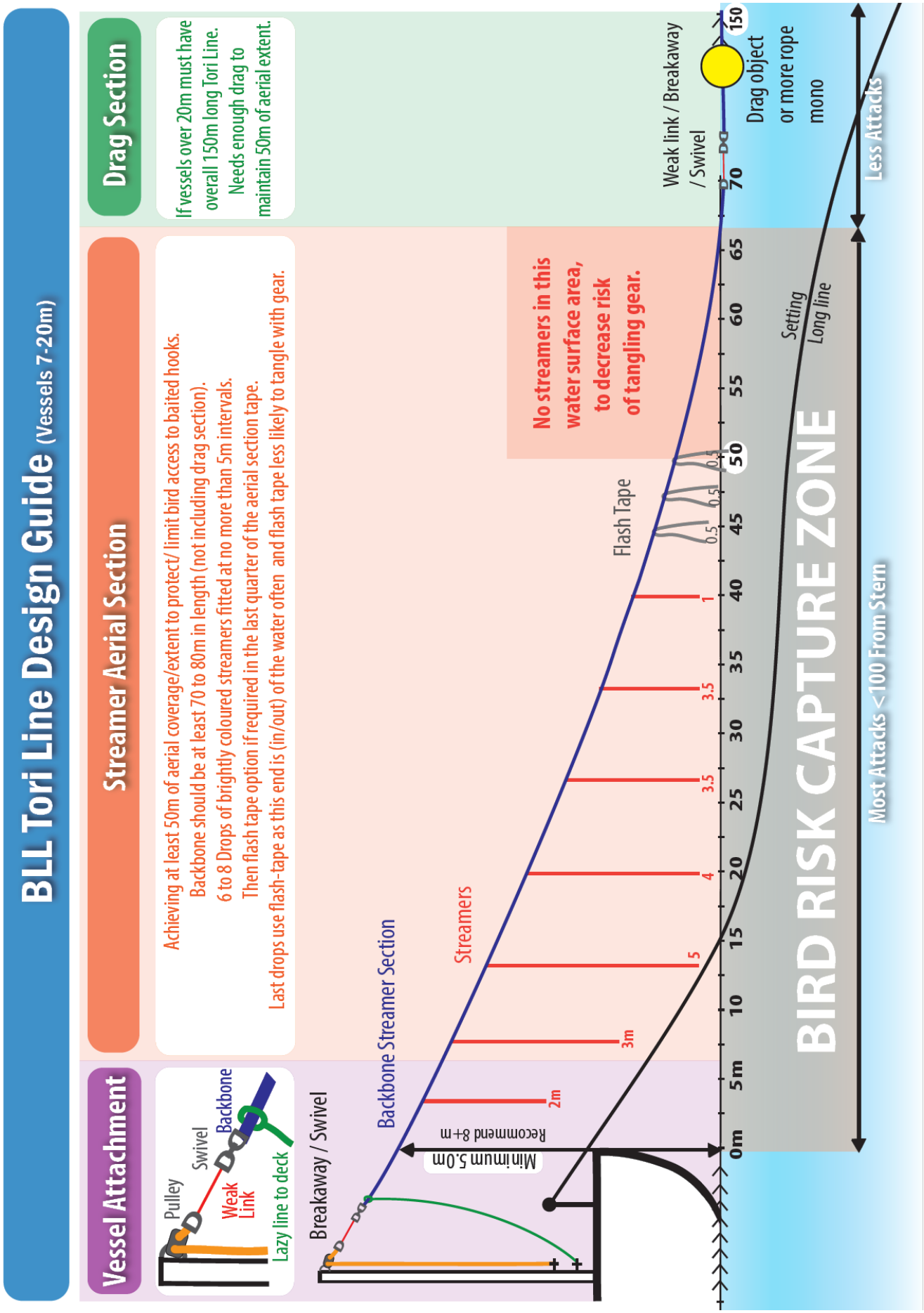
8. Autoline vessels must ensure the baiting machine is well-maintained and achieves a high (i.e. >95%) baiting percentage. The use of totally frozen bait is to be avoided. Ensure any unhooked bait is retained and not lost overboard.

9. Advise DWG (same day) when seabird captures reach Trigger Point. Email DWG Trigger Point Report to admin@deepwatergroup.org. Assess event and implement further risk reduction measures. Trigger points are:
   - Within any 24-hour period, 5 dead small (e.g. petrel/shearwater) or 3 dead big (albatross/mollymawk); or
   - Within any 7-day period, 10 birds dead or released alive (all species).

10. As legally required, report all seabird captures by ERS or in the Non-fish Protected Species Catch Return logbook and furnish to FishServe. Record and report bird band numbers.

deepwater group **For support phone John Cleal (021 305 825) or Richard Wells (021 457 123)**

APPENDIX 2: BLL TORI LINE DESIGN GUIDE



Tori Line Design and Build – Guiding Principles

Tori lines (streamer-lines): must be used at all times when setting fishing gear and achieve a minimum of 50m aerial extent. Your vessel needs tori lines that are: well built, easy to deploy, easy to retrieve (even after a tangle or break) and have backups ready to go. It is important to maintain the tori line just like you would the fishing gear. Use the tori line design guide (over-page) as a starting-point to construct something that works for your vessel design and fishing.

Three main Sections: (1) Vessel attachment, (2) Aerial and streamer section (3) Drag section

Vessel attachment - ***many boats don't fit the tori high enough!***

- Height: fit the tori line as high as possible ideally 8 to 10m+ above waterline, (for every 1m extra height, you'll achieve 6+m more aerial extent)
- Adjustable: be able to adjust/move the tori line or use a bridle etc. to shift it depending on conditions
- Weak Link: Make a breakaway system (fit a weak link) so the tori line will break-free before lots of tension comes on the tori line and the drum overruns or the pole breaks. Use a lazy line back to deck so you regain control of the vessel end of the tori line (and either clip it on to the longline or cut if away).

Aerial streamer section: ***-most vessels don't achieve enough aerial distance!***

Backbone: Needs to be at least 70-80m in length. Plenty of material options for the backbone/ aerial section. Choose a material that is:

- Light weight durable material; Braided line twists less (same for the drag material).
- Depends if you want lighter weight or heavy more robust gear. (The more weight and wind-age the more drag you need). Some vessels use dyneema (3 or 4mm) or mono backbone and tie/clip on streamers, others use larger diameter 8mm braid and thread streamers into the rope
- Streamer section: minimum of 6 to 10 sets of brightly coloured streamer tubing spaced at 5m intervals. Fit a few shorter drops of any type of 'flash-tape' at the seaward end
- Streamers: The first few streamers need to be shorter to reduce risk of tangling with the gear. Same too for the last few drops, switch to a light weight cheaper 'flash tape (less likely to hook-up your gear or just rips out, so it doesn't matter if it's in the water at times)
- Streamer Lengths: As per the design-guide (over page) it's dependent on the height you've attached line to the vessel. Do a test deployment and trim each streamer to suit height and keep them clear of the water (i.e. **keep all streamers in the air not in the water)**
- The last 20m or so of this section is in/out of the water, don't fit any streamers to reduce hook-ups with gear

Drag Section - ***most boats don't have enough drag, without that can't achieve the required aerial extent!***

- Drag object: this is fitted to aerial streamer section, often with a separate breakaway (weak link) and a swivel to reduce twisting, braid/mono material twists less for the drag section
- A float will produce increased drag (less rope to pull in for the crew) but will tangle more often; other wise use long lengths of mono or rope, but it's going to take hundreds metres (depending on diame ter) but is less likely to snag on your gear.(often a combination of both object and line is used).
- Options trialled and shown to achieve 50m aerial extent from 8+m height attachment include: 100m of 5.5mm mono, 100m of 8mm rope, 20m of 12mm rope and/or with 6" float, or 6 " float partly filled with water.

For more specific advice; Contact Dave Goad 'Tori Guru' Ph 027 3643098

APPENDIX 3: FISHERIES NEW ZEALAND SEABIRD SPECIES CODES

Unless you can positively identify the seabird species, use the generic/unidentified codes listed directly below:

XAL – Albatrosses (unidentified)
- **XGA** – Great albatrosses (unidentified)
- **XMA** – Small albatrosses (unidentified)

XXP – Petrels, Prions and Shearwaters (unidentified)

Table 2: Common Fisheries New Zealand Non-Fish Species Codes

COMMON SEABIRD NAME	SPECIES CODE
Antarctic fulmar	XAF
Antarctic petrel	XAP
Antarctic prion	XPR
Antipodean and Gibson's albatross	XAG
Australasian gannet	XGT
Black-browed albatross	XKM
Black petrel	XBP
Buller's and Pacific albatross	XPB
Campbell albatross	XCM
Chatham Island albatross	XCI
Flesh-footed shearwater	XFS
Giant petrel	XTP
Grey-backed storm petrel	XGB
Grey petrel	XGP
Northern giant petrel	XNP
Northern royal albatross	XNR
Salvin's albatross	XSA
Sooty shearwater	XSH
Southern giant petrel	XSP
Southern royal albatross	XRA
Westland petrel	XWP
White-capped albatross	XWM
White-chinned petrel	XWC

APPENDIX 4: BLL OP OBSERVER REVIEW FORM

Deepwater BLL OPs Observer Review Form

Fisheries New Zealand
Tini a Tangaroa

deepwater group

Trip Number	Vessel Name	Observer name	Trip start date	Trip end date	Sets observed
		.	/ /	/ /	

Record Yes (Y), No (N), Unknown (U) or Not Applicable (N/A) in the box provided, if you answer N or U to any questions (except Items 3, 4 & 12) then please make detailed comments on the reverse.

Item 1. Did the vessel carry a copy of the DWG BLL Operational Procedures (OP) on board that was made available upon request?

Item 2. Were the crew familiar with the contents of the BLL – OP?

Item 3. Were any seabird or marine mammal '*trigger-points*' activated during the trip?
(if Y record details of the triggers and the action taken by the vessel)

Item 4. Did a gear or equipment failure event occur that increased the risk of seabird or marine mammal captures? (*if Y detail the event and the action taken by the vessel)*

Item 5. Were there any changes in crew behaviour, fishing activity, mitigation devices deployed and/or gear used following '*trigger point*' events or during 'high risk' periods
(e.g. full moon, multiple capture events).

Mitigation device

Item 6. Was a tori line used for the entirety of all sets?

Item 7. When deployed was the aerial extent of the tori line adequate to reduce bird access to the baited hook line ?

Item 8. Were 'fit and proper'* streamers spaced at a maximum distance of 5 m apart along the entire aerial extent of the tori line?

Item 9. Did the vessel carry a spare tori line or sufficient parts to construct a second tori line if required?

Item 10. Was the tori line attachment point higher than 5 m above the waterline?

Item 11. Could the tori line be adjusted or repositioned so that streamers could be positioned over the backbone to suit varying conditions?

Item 12. Were any other mitigation devices used ('brickle curtain', water cannon etc.)?
(*if Y record details in the comments)*

Fish Waste & Bait Management

Item 13. Was all fish waste (including bait scraps) retained on board during setting?

Item 14. Was the discharge from the vessel during hauling managed/controlled as per BLL–OP (i.e. no continuous discharge with all offal/used bait held & batch discarded or mealed)?

Item 15. During hauling was all offal/used bait/whole fish either mealed or discarded on the opposite side of the vessel to which the line was hauled?

Item 16. Did baiting machines achieve a high baiting percentage and ensure all unhooked bait was retained on board and not lost overboard during setting (autoline only)?

Item 17. Was the use of totally frozen bait avoided?

General procedures

Item 18. Were all plastics (including fishing plastics such as snoods, carton strapping etc.) retained on board?

Item 19. Was setting conducted at night** or was the line weighted in accordance with legal requirements (i.e. IWL or external weighting)?

Item 20. Were spot lights shining directly astern controlled/dimmed during night setting?

Item 22. Were all seabird or marine mammal captures recorded on the MPI Non-fish Protected Species Catch Return logbook

Item 22. Were seabirds or marine mammals caught and released alive handled with due care?

Item 23. Any other comments?

**fit and proper streamers should be brightly coloured and of a sufficient length to provide a suitable deterrent to seabirds*
***night is defined as between 0.5 hours after nautical dusk until 0.5 hours before nautical dawn*

APPENDIX 5: FNZ FACTSHEETS

Fisheries New Zealand
Tini a Tangaroa

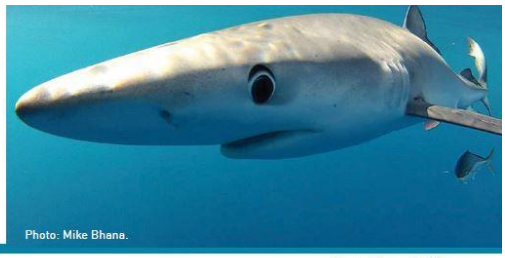


Photo: Mike Bhana.

Fact Sheet 1/4

Conservation and management of New Zealand sharks

1

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

SHARK FINNING BAN

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

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

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

Note that you are not required to land any fins.

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

- **QUOTA MANAGEMENT SPECIES**

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

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

- **NON-QUOTA SPECIES**

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

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

FOR MORE INFORMATION

Fact sheet 2 – Landing sharks with fins attached

Fact sheet 3 – Landing shark fins subject to a ratio

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

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

Conservation and management of New Zealand sharks

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

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

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

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

New Zealand Government

February 2020

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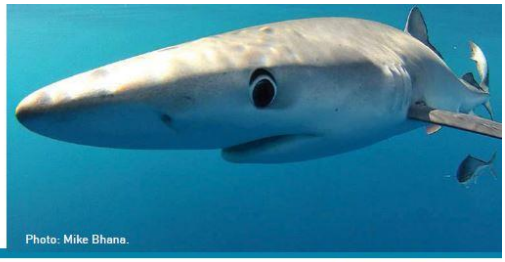


Photo: Mike Bhana.

Fact Sheet 2/4

Landing sharks with fins attached

2

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

Blue shark

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

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

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

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

Spiny dogfish and all non-QMS species

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

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

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

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

FOR MORE INFORMATION

Fact sheet 1 – Conservation and management of New Zealand sharks

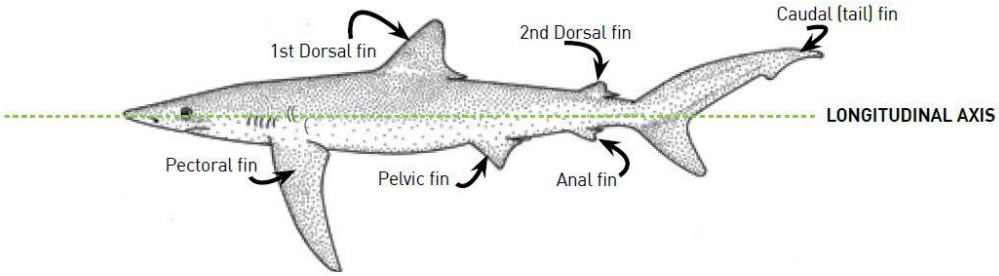
Fact sheet 3 – Landing shark fins subject to a ratio

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

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

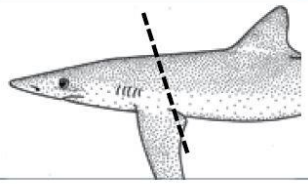
1

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



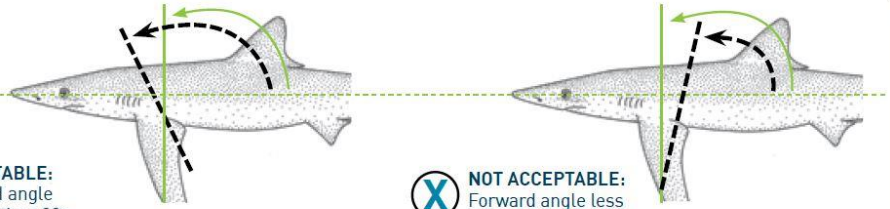
The body of a fish from which the head, gut and fins have been removed with:

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

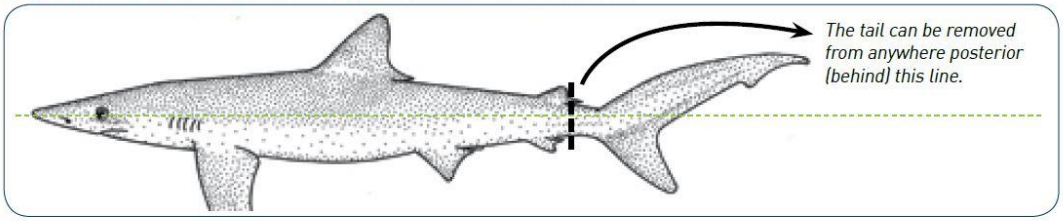


(The posterior insertion of the pectoral fin means the point along the body of a fish at which the rear (posterior) edge of the pectoral fin emerges.)

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



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



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

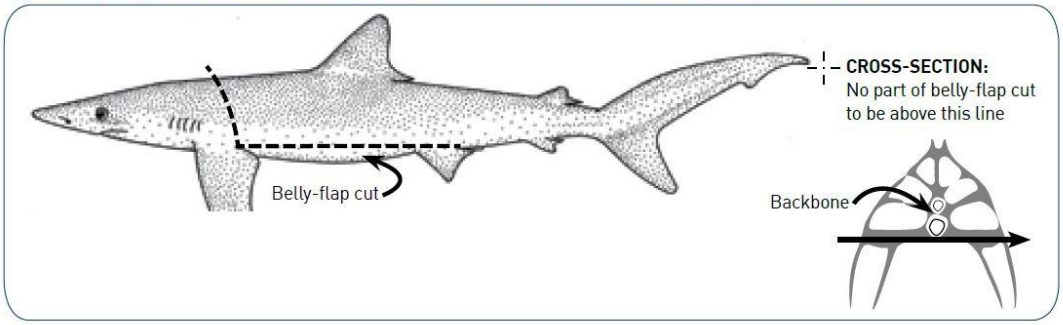


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Photo: Mike Bhana.

Fact Sheet 3/4

Landing shark fins subject to a ratio

3

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

These seven QMS species are:

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

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

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

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

How will the ratio work?

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

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

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

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

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

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

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

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

FOR MORE INFORMATION

Fact sheet 1 – Conservation and management of New Zealand sharks

Fact sheet 2 – Landing sharks with fins attached

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

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

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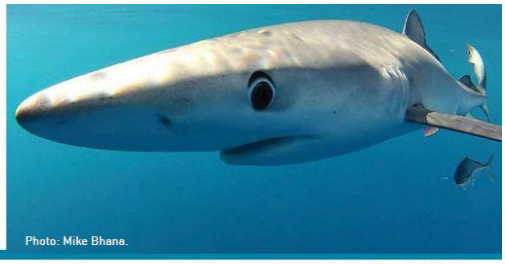
Photo: Mike Bhana.

Fact Sheet 4/4

Requirements for returning sharks to the sea (Schedule 6)

4

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

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

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

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

Live release only

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

- Rig SPO
- School shark SCH

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

Live or dead – pelagic sharks

For the following species:

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

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

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

Live or dead – spiny dogfish

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

FOR MORE INFORMATION

Fact sheet 1 – Conservation and management of New Zealand sharks

Fact sheet 2 – Landing sharks with fins attached

Fact sheet 3 – Landing shark fins subject to a ratio

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

1

Requirements for returning sharks to the sea (Schedule 6)

SUMMARY OF OPTIONS BY SPECIES OF SHARK

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

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