



LIN2015P2D1

Ling Bottom Long Lining Crew Training

Version 2
2015



deepwater
group

Deepwater Group:

LIN2015P2D1

Non profit organisation representing deepwater quota owners

Work with Government, scientists and fishers to maintain and enhance quota value and access to fisheries

Undertakes work with support of the Board (who are all quota owners)

Work operationally to improve fishing practices and management regimes to meet world's best practice

Are working to certify all deepwater stocks with MSC or similar party

Has support of 95+% of LING stocks Areas 2-7

WHY WE MUST TAKE CARE

- Policy

- NPOA / ACAP / DOC / MPI / DWG
- NZ & International agreements

- Community Support

- Access to fishing
- Market access and premium
- Certification (MSC)



MSC – MARINE STEWARDSHIP COUNCIL

- Certified Sustainable, International – independently assesses: health of fish stock, incidental by-catch and wider environmental impacts, management framework
- 2001 Hoki, first major whitefish to achieve MSC label
- SBW was certified in 2012; (conditional on the impact of fishing on sea lion population)
- Hake & Ling certified 2014 (ling has conditions due to longline seabird risk)
- ORH fisheries under assessment



NON-FISHING EFFECTS ON PROTECTED SPECIES

- Rubbish - plastics and packing etc thrown overboard (burn it or bring it home!)
- Pollution - oil etc
- Natural threats - storms, lack of food, disease, predators, etc
- Overseas fishing effects
 - Many birds species migrate overseas annually and for stay for years as juveniles



OBJECTIVES OF RISK MANAGEMENT

- Application of known and required best practice to reduce risk
- Training and Outreach
 - Crew briefings & on-call support
 - Liaison between vessels, fleet, MPI & DOC
- Communication
 - Reporting / Triggers / Audits



THE LAW AND YOU

- DOC

- Wildlife Act / Marine Mammal Protection Act

- MPI

- Fisheries Act & Regulations, Notices
- Mandatory Procedures & Devices
- Reporting

- International Policy

- FAO / IPOA - Seabirds; International Plan of Action to reduce seabird mortality
- ACAP – Agreement for the Conservation of Albatross and Petrels



DWG OPERATIONAL PROCEDURES

- Vessel & Risk Management Plans
 - Fish waste Systems/ Offal control – development, testing of systems
 - Mitigation- development, testing Mitigation devices
 - MPI- Observer voyage reviews/audit & feedback to vessel operators
- Trigger - Points
 - Real-time vessel reporting of Triggers/captures, advise & response to event in real-time, fleet notices
- Training –vessel visits crew training, DWG OP manual audits
- Ten Commandments / basic standard in brief form of ten pullets points
- Fishery, vessel operator notices, risk reduction management plans

DWG -TRIGGERS





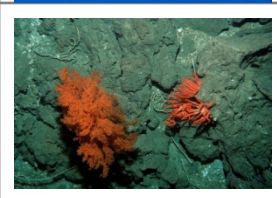
- For multiple or ongoing capture events
- Real time management & response
- Onboard - make changes to reduce risk
- Advice to skippers, 24/7 - John Cleal and or Richards Wells



DWG -TRIGGERS

Species (Mammals-dead & alive) (Seabirds-dead)	Captures per 24hrs	Captures in any 7 day period	Trigger Action (vessel captain & operator)
Seabirds: albatross	3 (Dead)	10 Dead & Alive	Advise your vessel manager ASAP! Record capture event; position, fishery - FMA, net or warp, species or big/small bird, contributing factors, etc.
Seabird: petrel, shearwaters, others	5 (Dead)	10 Dead & alive	Take any required action as per your Operational Procedure or VMP. Report capture, ASAP (same day) to DWG either directly or via your vessel shore management to: admin@deepwatergroup.org

PROTECTED SPECIES –WHICH ONES WE SEE OFTEN

	<p>Seabirds: All</p>	<p>All seabirds (e.g. albatross, petrels & shearwaters) are protected under the Wildlife Act. While there are a few exceptions where permits are obtainable, for all intents and purposes for deepwater vessels, all seabirds are protected.</p>
	<p>Marine Mammals: All</p>	<p>All marine mammals (e.g. NZ fur seals, NZ sea lions, and cetaceans, such as dolphins and whales) are protected under the Marine Mammals Protection Act.</p>
	<p>Reptiles: All</p>	<p>All marine reptiles (e.g. turtles and snakes) are protected.</p>
	<p>Fish Species: Some</p>	<p>These are: Great white shark Basking shark Whale shark Deepwater nurse shark Some fish & ray species (but not relevant to deepwater fisheries)</p>
	<p>Corals, Sponges & Bryozoan: Some</p>	<p>These are: Black, Golden, Bamboo, Bubble-gum, Soft and Stony Corals, and Red and Hydrocoral</p>

FISHERIES INTERACTIONS

Seabirds Involved in the Fishing Operation

- **Food attractant :**
 - Seasonal (breeding & fishing season overlaps)
 - Gear types / operations / processing
 - Area & time
- We now understand how most of these things fit together to create risk.

SEABIRDS

- Attraction
 - Food:
 - baited hooks, fish or bait waste discharge, unused baits hauled on hook
- Cause of Captures (and usually death by drowning)
 - Hook - swallowed
 - Hooked in beak, or foul-hooked
 - Tangled in snood-line



INCIDENTAL CAPTURES: SPECIES & PERIODS

High Risk Species:

- Salvin's albatross (highest risk)
 - Chatham Rise, Bounty – Spring, Summer
- Chatham albatross
 - Chatham Rise, –Spring
- Buller's albatross,
 - Snares, Aucklands, West Coast

Commonly Caught Species

- White chin petrel (highest number)
- Sooty Shearwater



GOVERNMENT REGULATIONS – MANDATORY MITIGATION

- Tori lines (see handout, its your job to know the law!!)
 - Properly constructed and adjusted over the hook line
- Offal and fish & bait-waste discharge
 - No discharge when setting
 - When hauling only discharge on the opposite side of the vessel from the hauling station
- Night setting only – nautical dawn and dusk (**unless you line weight**)
- Day setting, prescribed line weighting requirements

DWG OPERATIONAL PLAN

- BLL interim Code of practice
 - Most BLL operations covered by Govt-Regulation
- Ling Fishers Training Manual
- Night setting (smaller hand-bait vessels)
- Offal Control - batch and or hold
- Line Weighting (larger vessels)
 - Baiting machines, high % baited/hooks
- Trigger Points- Report to DWG ASAP

Interim Code of Practice

For the Mitigation of Incidental Seabird Capture in
New Zealand Bottom Longline
Fisheries



Original draft: Ling Autoline Working Group 2007

Revised Interim draft for use in other bottom Longline fisheries

June 2013

**Ling Fishers
Training Manual**



The Mitigation of Incidental Seabird Capture in New
Zealand Ling
Longline Fisheries

REDUCING SEABIRD MORTALITY

- Accidental captures of seabirds can be reduced by taking the following actions:
- Preventing access to baited hooks
- Reducing the visibility of baited hooks and decreasing the attraction for birds to attend longline vessels.



REDUCING SEABIRD MORTALITY - RISK TIMES

- Greatest risk is when setting and the baited hooks are on or near the surface (petrels can dive 30+m).
- When the line is being retrieved and unused baits are hauled back aboard the vessel
- Discarding baits and fish waste can attract seabirds to the vessel at any time.

MITIGATION LAW –TORI LINES

- Tori Lines (different specs for “big” and “little” vessels):
 - the tori line should be placed in such a way that streamers are above the area in which the baited hooks enter the sea, so that seabirds are scared from area
 - Ensuring line is fixed to the vessel at least 5m above water-line and have enough drag on the line to allow for good aerial extent (50 m)
 - You need to make adjustments to the arrangement of the tori line depending on the conditions.
 - Fitting a boom and bridle system allows the line to be adjusted and maintained over the setting line

Read the mandatory specifications with the regulations to ensure compliance when building, deploying and repairing a tori line

MITIGATION LAW - OFFAL CONTROL

- Line setting is the danger period -it is critical not to attract birds to the vessel at this time.
- No offal is allowed to be discharged while setting the gear, and this includes bait that falls off during auto-line setting
- Offal can be released overboard when steaming, or discharged from the opposite side of the vessel when hauling (i.e. no discharge to occur on the same side of the vessel as the hauling room)
- Every effort must be made to remove embedded hooks from any offal that is discharged.

MITIGATION LAW - NIGHT SETTING

- **Bottom longlines may not be set between dawn and dusk (daytime) unless line weighting is employed.**
- Research shows that more seabirds are caught on lines set during the day. Setting longlines at night is the recommended best-practice as the bait is less visible to seabirds.
- **But.....full moon periods can see increased seabird activity and captures particularly of white chin petrels**
 - Additional line weights should also be added to further increase sink rate in times of high risk, and 2nd tori line deployed

MITIGATION LAW - LINE WEIGHTING

- Line weighting is to sink baits beyond the feeding range of diving birds as quickly as possible
- integrated weighted line (IWL), where the lead core weight is evenly distributed giving constant sink rate (lead core Min of 50g/m) – best!
- Best practice Sink Rate is 0.3 metres/second
- External weights-(metal) every 60m of +3.5mm backbone (weight required increases if using floats)

Read the mandatory specifications with the regulations to ensure compliance

OTHER MITIGATION MEASURES

- Thawing of bait
 - The use of totally frozen bait should be avoided as it sinks at a slower rate than thawed bait.
 - Partially frozen bait works well on autoliners as the bait is cut up as it is hooked. The baiting machines need firm bait, and if the bait is fully thawed out the baiting efficiency is reduced.

OTHER MITIGATION MEASURES

- Water spray on hauling
 - If birds are being caught during the haul a water sprayer (or something similar) can be fitted around the hauling station.
 - There are many different forms of sprayers, it basically forms a barrier between the birds and the hauled line
 - Another effective set up has been to keep tori streamers on a pole just above the waterline so they flap around individually rather than having them hanging down in the water (curtain effect)

When Setting:

- Gas cannons
- Laser – under development and trial

SETTING DEVICES

- Setting hooks closer to or below the surface of the water reduces the time gear will be in 'strike-zone'
- Setting Tunnel
 - The tunnel allows baited hooks to be released closer to the water's surface
- Under water setting chutes
 - Produced by Mustad for use with single line auto-line system, the underwater setting chute deploys the baited hooks, 1-2 m below the surface.



HANDLING CAPTURED SEABIRDS

- Keep the bird calm by covering the head with a cloth. Use two crew, one to support the bird while the other frees the gear from it.
- Use gloves and eye protection.
- When freed, place the bird gently back into the water.
- If the bird is water logged keep it in a safe place such as empty fish case till it has recovered.

HOOK REMOVAL

- Seabirds caught in longline gear are usually either tangled in the line itself, hooked through a body part, or hooked in the beak or throat.
- To remove line, carefully cut it off the bird.
- To remove a hook from a body part, trim the line and, using side-cutters (have some at hand), either cut the barbs off the hook or cut the hook in two and thread it out.
- If the hook has been swallowed, do NOT pull on the visible line. Cut line as close as possible to the swallowed hook and leave the hook in place. Release the bird.

REPORTING - INTRODUCTION

- Accurate reporting allows for better management of our fisheries
- Under reporting is easily profiled when compared to observed reporting rates
- Consistent lower reported rates quickly exposes integrity and credibility of the industry
- There is no penalty for catching birds, there is for non reporting.

REPORTING - RESPONSIBILITIES


- Not illegal to incidentally capture protected species
- It is however illegal to fail to report the capture
- Fisheries reporting 2001 regulations
- All protected species must be returned to the sea
- Record in the “NFPSCR” form
- Record in “Ships log”

DWG REPORTING - REVIEW

- MPI observers complete a form during each voyage
- Assess adherence to the DWG, Operational Procedures (OP)
- Part of the MPI voyage observer debrief
- Sent to DWG for review, forward to vessel operator

Vessel Management Plan/Marine Mammal Operating Procedure
Observer reviews (Version 4 - Jun 2011)

1. Write the trip number start date of trip / /
 and vessel name



2. If any of items 1-10 are "U" or "N" then a comment is required in section 5: Y/N/U

Item 1. Did the vessel have a copy of the Marine Mammal Operating Procedure?.....

Item 2. Was a Vessel Management Plan onboard and was it specific to this vessel?.....

Item 3. Were key crew members familiar with the contents of the above documents?.....

Item 4. Did the crew clear the net of "stickers" before shooting?.....

Item 5. Did the vessel attempt to minimise the amount of time the net spent on the surface?.....

Item 6. Did the vessel refrain from discarding plastic or netting?.....

Item 7. Did the vessel use mechanisms or procedures that reduced accidental discharge of floor offal and fish to the sea (e.g. grates)?.....

Item 8. Did the vessel steam away from large congregations of marine mammals?.....

Item 9. Did the vessel refrain from setting gear when dolphins were nearby?.....

Item 10. Was there a designated crew member looking for marine mammal captures?.....

3. Items 11-13 use "Y" to indicate which options were present:

Item 11. The seabird scaring devices available during this trip were:
 None Tori Line Bird Baffle Warp Scarer Other

Item 12. The most regularly used seabird scaring device was:
 None Tori Line Bird Baffle Warp Scarer Other

Item 13. The main offal management strategy employed during this trip was:
 Meal Held Batch Mince Other

4. If any of items 14-20 are "Y" or "U" then a comment is required in section 5: Y/N/U

Item 14. When targeting JMA, was there evidence to suggest that the net was shot or retrieved between 2:30am and 4:30am (Only applies north of 40 deg 30 mins S)?.....

Item 15. Was offal or fish discharged during net shooting or net retrieval periods?.....

Item 16. Was an additional seabird mitigation device(s) deployed during this trip?.....

Item 17. During turns, were the doors ever fully submerged with a headline depth of less than 50m?.....

Item 18. Were any marine mammal or seabird 'trigger' points activated during this trip?.....

Item 19. Were there equipment failures that increased seabird/marine mammal capture risk?.....

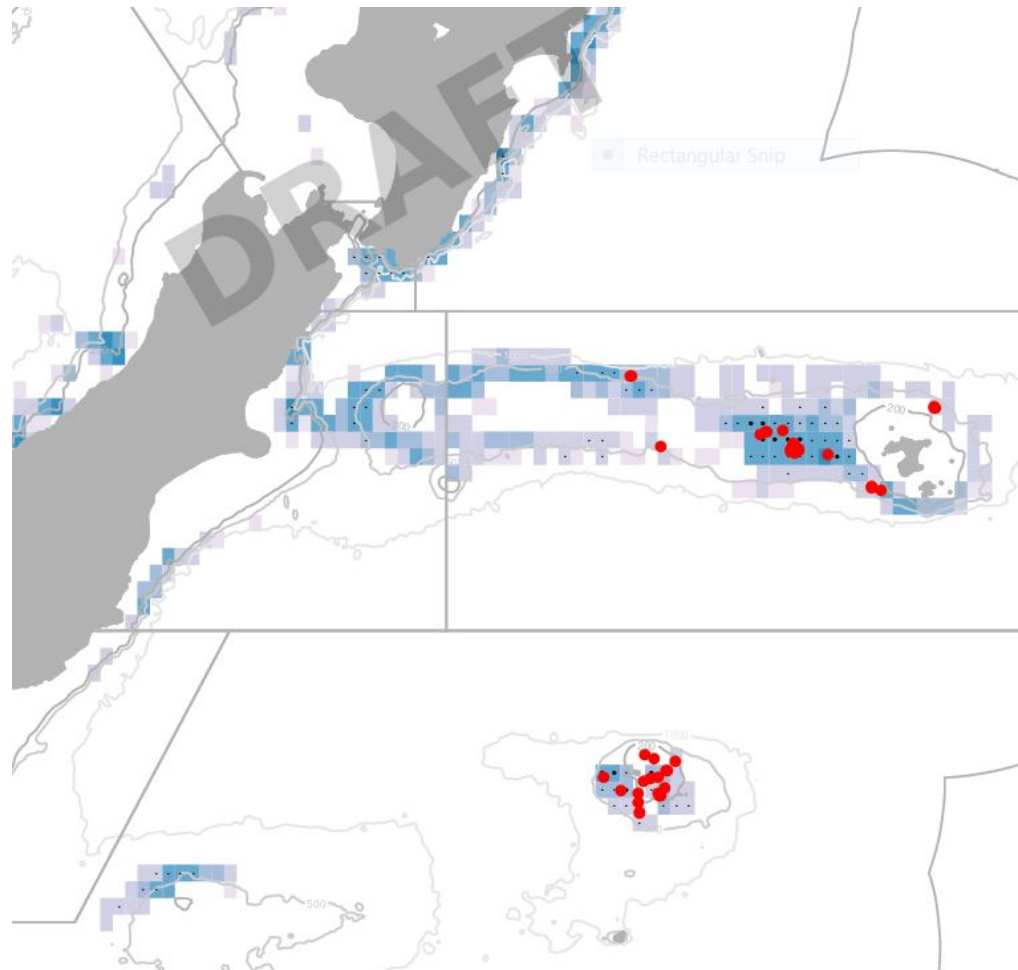
Item 20. Were there any other notable seabird or marine mammal related events during this trip?.....

SHARKS

- New Rules - NPOA Sharks and Finning Ban
- 1 Oct 2014 new finning regulations – see MPI fact sheets
 - Shark Finning Ban – Can't remove fin & discard body
 - Fins landed artificially attached & fin ratios
 - Schedule 6 QMS species returned to sea/reporting changes
- Deepwater dog fish - Liver Processing
 - Better reporting & ID of main species (BSH,SND,ETB,CSQ / other species list as - OSD)
 - Green-weight reporting: LIV mix-packed, label all “Shark-Liver”

LING LONGLINE – GRAPHS

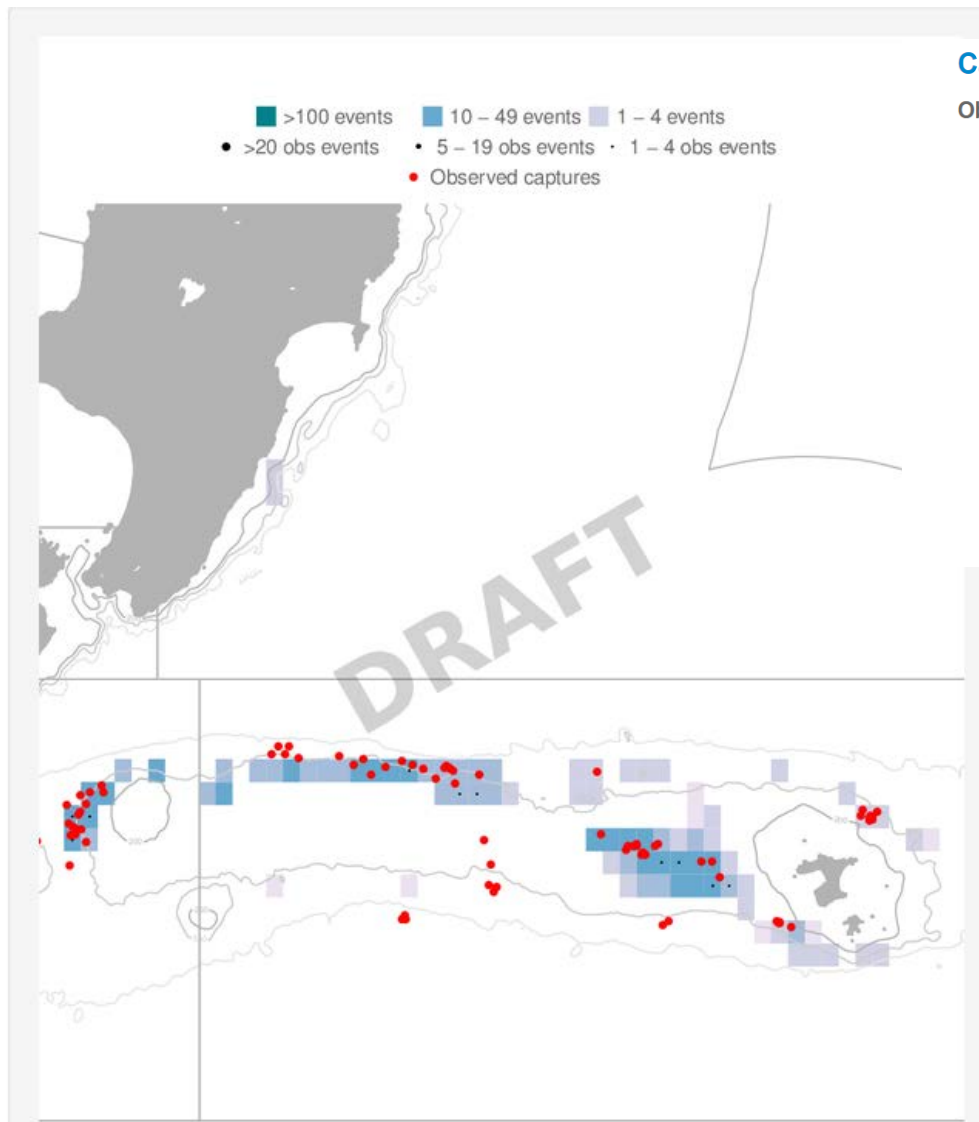
SALVIN'S ALBATROSS - CAPTURE LOCATION



CAPTURES STATS (smaller vessels-ling fishery)

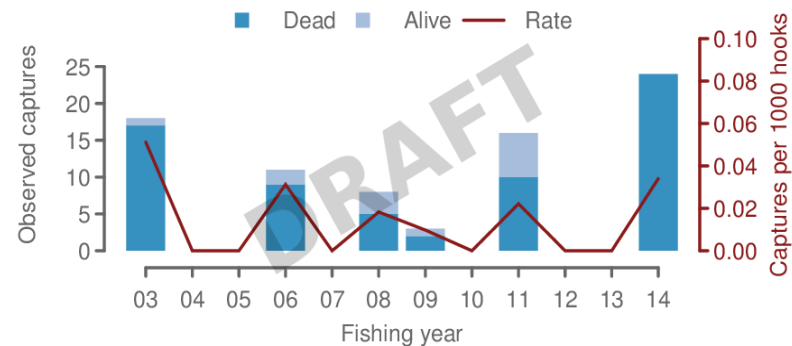
- Observer coverage around 8% annually
- Over past 10 years observed seabird captures range from Nil (0) to 40 birds /per 1000hooks
 - Extrapolated out with around 8 million hooks set per year bird captures estimated to around 300 to 500/year
- Low observer coverage give “hit/miss” results and poor confidence in estimated capture numbers

LING LONGLINE – GRAPHS 28-43M VESSELS



Captures of all birds by 28–43 m vessels in ling longline fisheries

Observed captures



For more about DWG go to:
www.deepwatergroup.org

Contact:

John Cleal – Ph: 021 305 825

Richard Wells – Ph: 021 457 123

Email: (for both above) Vessel Reports & Advice
admin@deepwatergroup.org