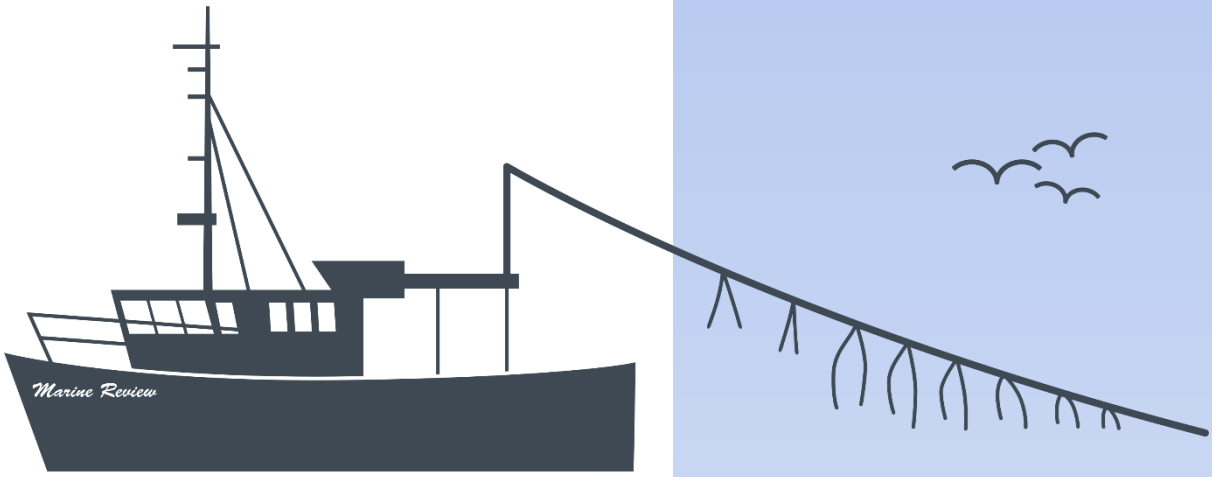
INT2024-02

Port-Based Data Collection and Specimen Retention Programme



Protect Together — Fish Forever

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INT2024-02 Port-Based Data Collection and Specimen Retention Programme

Pilot Study Final Report

CONTENTS

Executive Summary

Between February and June 2025, INT2024-02 pilot study assessed the feasibility of a port-based data collection and specimen retention programme aimed at closing data gaps in New Zealand's inshore fisheries. These gaps have emerged with the adoption of electronic monitoring (EM), which, while efficient, have reduced access to biological samples and operational data traditionally collected by at-sea observers.

The pilot's objectives included

- Testing the project design developed in Stage 1
- Facilitating the collection and identification of bycaught seabirds and corals
- Documenting fishing gear and mitigation configurations and specimens
- Evaluating and reporting on pilot results with recommendations for optimised data collection
- Assessing the logistical viability of land based coordination for specimen retention and shipment

Supplementary data collection is essential, as accurate identification of bycaught seabirds and coral species often require physical specimens to confirm species level taxonomy. Specimens provide biological insights on age, sex, body condition, diet and injuries sustained, this cannot be gleaned from EM alone.

Furthermore, documenting the specifications of fishing gear, mitigation devices and practices is crucial for understanding factors contributing to protected species interactions. These insights are key to informing risk reduction strategies and engagement through the Liaison Programme (MIT2024-01).

Ten vessels participated across seven ports in Fishery Management Area 1 (FMA1)

- One bottom trawler (BT)
- Two surface longliners (SLL)
- Seven bottom longliners (BLL)

Fishers were provided with specimen retention kits, authority to retain under the Wildlife Act 1953 and guidance material on handling, storage and retention procedures. Samples were retained onboard, documented, collected, and shipped, while maintaining clear tracking and communication at all steps.

A total of 10 bagged specimens were retained

- Eight bags of coral, some bags contained multiple samples
- Two seabirds
- No BT and SLL vessels bycaught coral or seabirds for retention
- BLL vessels bycaught both coral and seabirds which were retained and collected

Key fishing operation insights

- 57%, 4 out of 7 BLL vessels did not maintain up-to-date bottle sink rate records
- 44% of BLL minimised light, 33% did not manage it, 22% cited the need for lighting
- All BLL vessels deployed tori lines, though some required basic maintenance
- Common gear configurations included Mustad 17/18 hooks and mono mainlines (1.8–2.5mm)
- Fishers expressed a strong interest in improved ID tools, and more effective bird deterrents

The pilot demonstrated that port-based specimen retention and data collection is operationally viable. It also highlighted the importance of building trust, and tailoring outreach materials specific to inshore fisheries. This pilot model is scalable, and capable of delivering specimen retention and operational data on fishing and mitigation gear.

Introduction

In recent years, the transition to EM within inshore fisheries has reduced the ability to collect detailed species-level data via specimen retention. These functions, traditionally managed by at-sea observers, are essential for effective management of protected species bycatch and understanding interactions between fishing gear and marine protected species. INT2024-02 pilot was designed to assess whether port-based data collection and specimen retention systems could fill these gaps.

The primary objectives of the pilot was to test proposed approaches to facilitate the return and identification of bycaught seabirds and corals, collect data on fishing gear, mitigation devices, and vessel practices. All through volunteer collaboration with inshore fishers and Licenced Fish Receivers (LFRs).

Method

The pilot was conducted in Fishery Management Area 1 (FMA1), covering seven ports, Houhora, Mangonui, Whangarei, Leigh, Whitianga, Tauranga, and Te Kaha.

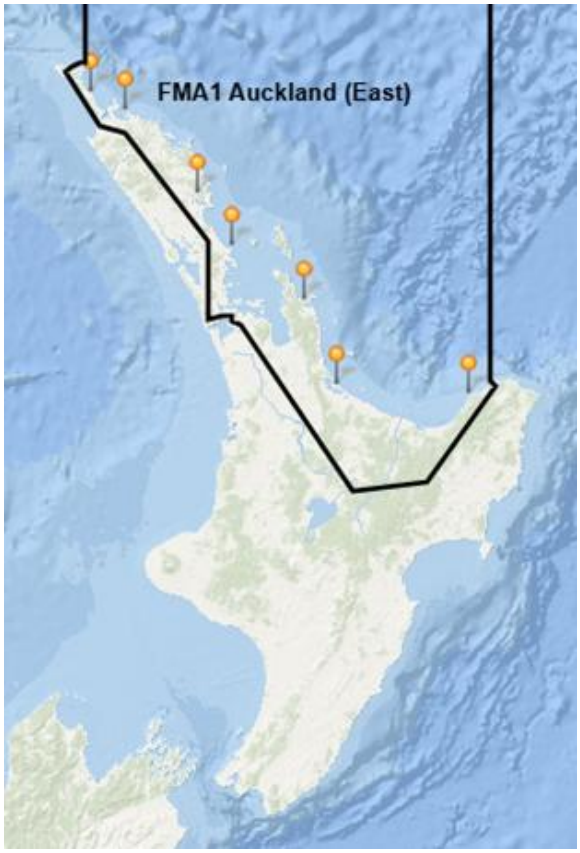


Figure 1: Map of FMA1

Displaying geographic scope of participating vessels

Participation was voluntary and targeted inshore vessels already operating on board cameras. These vessels employed various fishing methods, including BLL, SLL, and BT. Figure 1 contextualises the pilot's spatial coverage and illustrates the logistical efforts across multiple locations.

Vessels received a one off visit whilst in port, see Figure 1. Orange indicators mark the visited ports and represent home ports or unload locations of each participating vessel.

An information pack (*see Appendices*) was developed to support engagement with fishers and LFRs. It outlined the programme's objectives, clear guidance on specimen retention procedures, handling guides, commonly asked questions and concerns. This pack played a key role in initiating conversations, setting expectations and gauging participation levels.

Figure 2: Insulated tub to retain specimens separate from main catch

Figure 3: Specimen retention kits

Figure 4: Specimen retention reporting label, completed by fishers

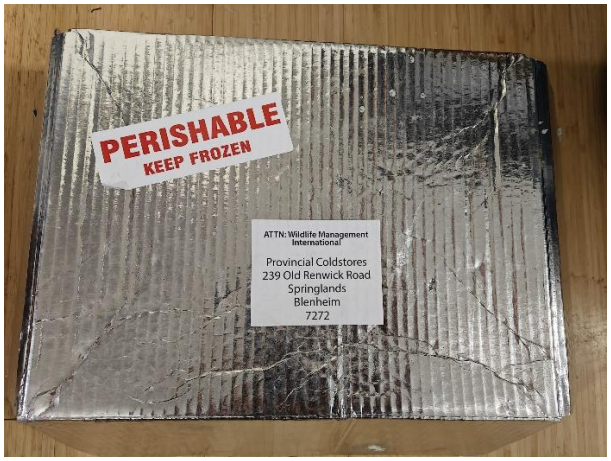


Figure 5: Chilltainers for specimen shipment

Fishers who agreed to participate were provided with specimen retention kits *(see Figures 2, 3,4 & 5)* containing:

- Insulated tubs
- Specimen bags
- Gloves
- Reporting labels
- ID guides
- Specimen retention handling guides
- Authority under section 53 of the Wildlife Act 1953 to collect and retain biological samples from bycaught protected seabirds and corals – Permission to retain letters were emailed to vessel owners and hardcopies given to each vessel during setup stage.

Following a protected species bycatch event of either a seabird or coral, fishers provided photographs, recorded essential data on reporting labels; date/time, vessel registration, and quantity retained *(see Figure 4),* bagged and stored specimens in insulated tubs with ice.

Fishers sent photographs to the programme lead / contractor, triggering unload and shipping coordination with LFRs. Depending on the company's preference, samples were either stored onsite in bait freezers or packaged and shipped to relevant contractors under species ID projects, INT2022-02 and INT2022-03, corals to NIWA and seabirds to Wildlife Management International for expert identification and analysis.

To ensure consistency and traceability throughout the pilot, a standardised tracking spreadsheet *(see Table 1, overleaf)* was developed. This spreadsheet included key fields such as specimen bag number, vessel registration, sender and receiver information, collection and shipping dates, shipping details, specimen type, and comments. This structure provided a clear chain of custody from the vessel to the destination and supported accurate tracking and monitoring of specimens.

During vessel visits standardised paper-based data collection forms (*see Appendices*) were used to capture detailed information on fishing gear configurations, mitigation devices, and vessel mitigation practices all aimed at reducing bycatch and interactions with protected species.

These forms include sections on:

- Gear specifications: snood length, hook type, bait dyeing
- Mitigation devices: tori line deployment details, condition
- Operational practices: light management, offal discharge, crew familiarity with procedures, and availability and useability of species ID tools

This structured approach supported consistent monitoring, promoted best practices, and informs ongoing improvements in mitigation strategies.

Once collected, the data was transcribed into Microsoft Forms. Microsoft Forms automatically compiles responses into a linked Excel spreadsheet, which can be stored securely in OneDrive or SharePoint. This digital format allows for automated data analysis, real time access to summary dashboards, which can easily be shared. The Liaison Programme could be provided with access to the data either by:

- Sharing the Excel spreadsheet directly with view or edit permissions
- Providing a summary link to the Microsoft Forms dashboard

Note, this integration step is yet to be completed and will require arrangement between the contractor and DOC CSP to determine the most appropriate method for data sharing and access. This may include setting up shared access permissions, defining data security protocols, and establishing a regular reporting schedule. This step would enable programme links to be developed and would integrate the Liaison Programme and INT2024-02 allowing for timely access to relevant data, supporting collaborative efforts in monitoring and improvements.

Following the pilot, feedback was collected through a user experience questionnaire. Participating fishers were asked to reflect on what aspects of the process worked well, what could be improved, and to suggest enhancements for future iterations. Additional feedback was sort from NIWA, highlighting issues with coral sample preservation. This feedback is built into the recommendations section.

Specimen label #	Sender	Collection location (vessel / shore storage)	Shore storage location	Vessel name	Vessel registration	Date collected	Date shipped	Date received	Shipping/tracking details	Specimen type (coral/ seabird)	Retained Y / N	Comments
010	Joe Bloggs	Fish truck	Fish Factory	Go Fish	123456	20/3/25	4/4/25	4/4/25	ID125	Coral	Y	Small segment attached to a rock

Table 1: Specimen Collection and Shipping Tracker

Results

A selection of photos below and over leaf, display the types of photos fishers provided during specimen retention. Initial coral observations point towards the following taxa, Monomyces rubrum, Antipathella black coral, Bryozoa, Black Petrel, and unidentified Petrel. Final findings and confirmed identification to taxa level are pending.

Figure 6: Sample

Figure 7: Sample

Figure 8: Sample

Figure 9: Sample

Figure 10: Sample

Figure 11: Sample

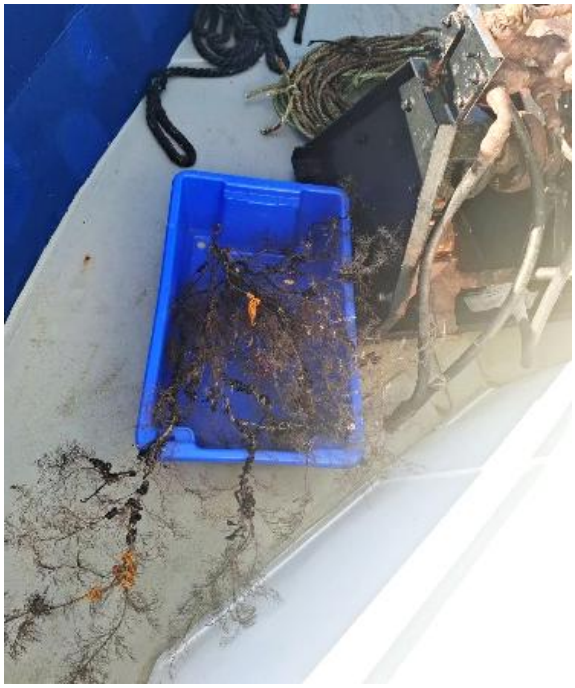
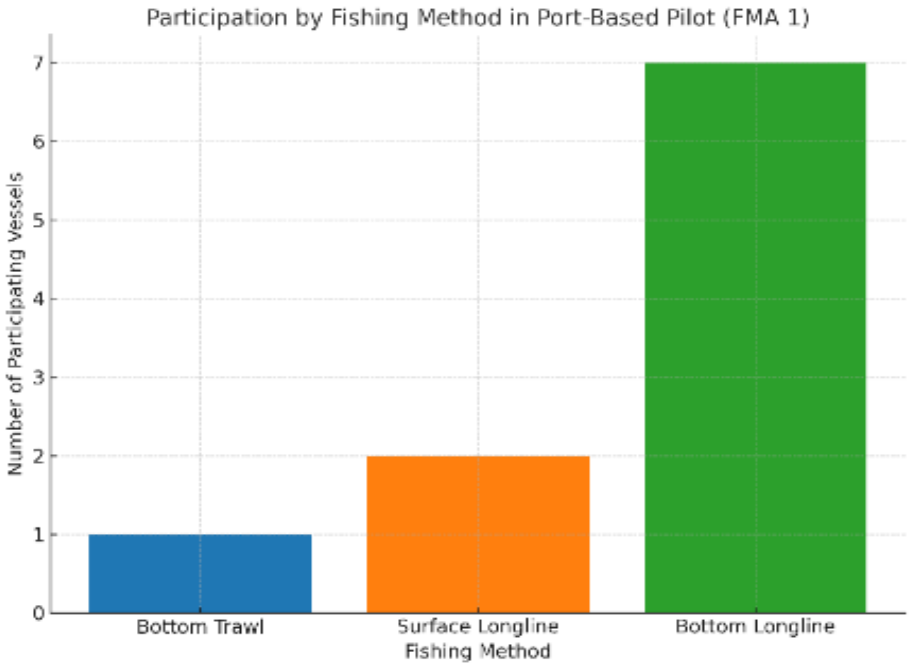


Figure 12: Sample

Figure 13: Sample

A total of ten vessels from FMA 1 participated in the pilot as shown on Graph 1: Pilot participants by fishing method below. These vessels represented a range of fishing methods, comprising of one BT, two SLL, and seven BLL.



Graph 1: Pilot participants by fishing method

Most pilot participants came from the BLL fleet, indicating a greater willingness within this group to engage with the pilot. A total of 19 vessels were contacted to gauge participation levels, 10 out of 19, 53% agreed to participate. However, despite participation, initial hesitations were strong and common across all fishing methods.

Anonymised vessel	Pilot engagment length	No of samples bycaught	Fishing method
01	12 weeks, 5 days	1 seabird, retained	BLL
02	7 weeks, 5 days	3 coral, retained	BLL
03	8 weeks, 2 days	2 coral, retained	BLL
04	6 weeks, 2 days	2 coral, retained	BLL
05	10 weeks, 2 days	Small 15cm segment of Black Coral, **not retained** as duplicate samples received already	BLL
06	10 weeks, 5 days	1 seabird, retained	BLL
07	12 weeks, 6 days	0 bycatch	SLL
08	12 weeks, 6 days	0 bycatch	SLL
09	5 weeks, 5 days	0 bycatch	BLL
10	10 weeks, 5 days	0 bycatch	BT

Table 2: Anonymised vessels pilot engagement length, fishing method and number of samples retained

Fishers voiced concerns about potential repercussions that might come about due to participation, these included:

- Impacts on relationships with LFRs
- Risks of non-compliancy with regulations related to retaining biological specimens on board vessels, fish trucks and fish processing facilities
- All vessels and facilities must comply with relevant food safety standards including the Animal Products Act 1999, Food Act 2014, New Zealand European Union (EU) Export Standards, Australia New Zealand Food Standards Code
- Accidental breach of fisheries rules and regulations
- A strong concern that retaining specimens could trigger future spatial management responses, such as area closures or restrictions

These concerns were acknowledged and talked through as they arose, participation was voluntary and participants only participated if they felt comfortable. To remedy concerns specimen retention procedures were discussed with New Zealand Food Safety to ensure that food safety concerns particularly regarding the protection of fish destined for human consumption were effectively managed so that on board bycatch retention did not compromise the vessel and associated standards.

To mitigate contamination risks, specimens were robustly bagged and stored in insulated tubs onboard and during fish truck transport. This ensured that retained specimens could not contaminate fish products onboard vessels or during transport in fish trucks.

Fisher concerns may reflect a broader sense of caution among inshore fishers, underscoring the importance of building trust and strengthening relationships between DOC and the fishing community. There remains a strong perception among some fishers that DOC has a focus on restricting commercial fishing activities. However, feedback from fishers about FMA1, DOC Liaison Officers (LOs) was positive. They respect and appreciate the work LOs are doing and the goals they are striving to achieve, they especially enjoy the custom tori line setups, and onboard advice.

Long standing fishers demonstrated a strong understanding of the messages LOs promote, and newer entrants to the industry praised the guidance and support LOs provided in helping them bring their practices and gear up to standard. This strong relationship between fishers and regional LOs is a key asset in advancing mitigation strategies and fostering industry wide improvements.

DOC may carry a mixed reputation among inshore fishers but the LOs working in FMA1 are held in high regard and their messages are getting across and are absorbed. This is reflected in participants having good knowledge of Protected Species Risk Management Plans (PSRMPs) and being able to easily locate the folder from the ‘bird guy’ / LO in the wheelhouse.

Fishing method	Date collected	Received from anonymised vessel	Specimen type	Retained Y / N	Comment/Quantity
BLL	27/2/25	01	Seabird	Y	x1
BLL	7/4/25	02	Coral	Y	x1
BLL	15/5/25	03	Coral	Y	x1
BLL	17/5/25	02	Coral	Y	x 5-10 in bag
BLL	21/5/25	02	Coral	Y	x4 in bag
BLL	24/5/25	04	Coral	Y	
BLL	8/6/25	04	Coral	Y	
BLL	9/6/25	03	Coral	Y	x1
BLL	9/6/25	05	Coral	N	Small 15cm segment of Black Coral, **not retained** as duplicate samples received already
BLL	23/6/25	06	Seabird	Y	x1

Table 3: Specimen Shipping and Transport Tracker

A total of 10 retention events were reported by six BLL vessels, comprising of eight bagged coral samples (some bags contained multiple samples) and two seabirds. One coral specimen was not retained due to its small size, a confirmed positive species ID at sea, and the presence of two previously retained and shipped Black Coral samples from other participants.

All samples were voluntarily reported by fishers with handling and storage protocols followed well by the majority. Fishers provided initial photographs of specimens bycaught, completed specimen labels correctly, bagged and stored onboard as requested. Nine specimens were successfully retained and transferred to researchers for analysis and species ID, which will be subsequently reported on through associated CSP species ID projects.

The operational model and pathways tested over the five-month pilot proved highly effective. LFRs and fish factory infrastructure were successfully used for cold storage and specimen shipping. Fish trucks transporting routine fish unloads were used to carry specimens, reducing costs and streamlining logistics. The integrity of the chain of custody was maintained throughout, with clear documentation and coordination between fishers, fish processors / LFR, scientists and contractor.

Data collected via Fishing Gear & Mitigation Device forms have been analysed for trends, key findings and learnings. Seven BLL, two SLL, and one BT Fishing Gear & Mitigation Details Forms were completed during vessel visits. Some of the main themes have been summarised below.

Sink rate record keeping BLL vessels only

57% of responses indicated “No” sink rate records are not up to date or not kept on board.

43% responded “Yes”, showing room for improvement.

Light management during night fishing BLL vessels only

44% of vessels minimise light during night fishing.

33% do not manage light, and 22% said they require lights on for operational visibility. This suggests a tension between operational needs and mitigation best practices.

Tori line deployment and condition BLL vessels only

All vessels deploy tori lines throughout setting.

Most tori lines are in good condition, though some need streamer replacements. Several operators expressed interest in additional bird deterrent options, especially during hauling.

Gear configuration trends

Hook type: Mustad 17 or 18 is most common.

Mainline material: Predominantly mono (1.8–2.5mm).

Weight materials: Bulldozer lugs, bricks, metal chunks, and rods.

Subsurface float sizes: Range from 50mm to 150mm.

Average distance between weights: Varies from 30m to 150m.

Operator comments and concerns

Common themes:

- Desire for more information on corals and lesser-known protected species
- Requests for bird deterrent innovations
- Concerns about regulatory constraints (e.g., forced landing of small gurnard)
- Interest in camera field-of-view adjustments to monitor out of scope fishing activities e.g., cray potting
- Appreciation for educational visits over compliance checks.

Discussion

The pilot confirmed that retaining specimens and collecting them from shore-based facilities is both practical and effective as a complementary approach to fisheries monitoring, particularly in the absence of at-sea observers. Logistics for collection, storage, and shipment operated smoothly across multiple ports, vessels, and Licensed Fish Receivers (LFRs), demonstrating the feasibility of this model.

While onboard cameras and video reviews remain valuable tools for monitoring and, when possible, identifying bycatch species, they cannot capture the full biological and ecological context of bycatch events. Specimen retention, previously conducted by at-sea observers and now trialled through this pilot enables expert necropsy and provides critical insights that electronic monitoring alone cannot deliver. Through necropsy, researchers can assess the health status of bycaught seabirds, identifying conditions such as disease, emaciation, or age-related vulnerability that may influence interactions with fishing gear. These underlying factors help explain why bycatch occurs.

Necropsy yields detailed biological data, including species confirmation, age, sex, body condition, and stomach contents. This level of resolution supports more accurate assessments of population-level impacts and enhances the precision of management responses. In short, specimen retention offers ecological and biological insights that go beyond what can be inferred from video footage alone.

Some limitations were identified. For instance, duplicate samples of Black Coral were submitted, indicating a need to refine guidance on which specimens are most valuable to retain. While skippers generally showed confidence in identifying seabirds, few were aware that hundreds of coral species are legally protected in New Zealand, revealing an educational gap around inshore coral biodiversity.

The pilot also highlighted key social and operational dynamics that will shape future programme design. LFR support was pivotal, many fishers only agreed to participate after confirming their LFR was involved, underscoring the influence of trusted commercial relationships. As expected, fishers expressed scepticism toward the DOC and the pilot's objectives, reflecting a common perception of DOC as primarily focused on limiting fishing activity. Despite this, participants spoke warmly of their DOC Liaison Officers, often referring to them as "the bird guys," suggesting that trusted, personable intermediaries can help overcome institutional mistrust and underscore the importance of direct, face-to-face engagement.

Participants consistently expressed a strong commitment to sustainable fishing. Many operate family-run businesses with deep generational ties to the sea and view marine stewardship as essential to securing future fisheries. Several fishers joined the pilot because they saw it as a meaningful way to contribute to scientific understanding of marine ecosystems. However, the pilot also revealed the fragility of trust between fishers and industry agencies.

Recommendations

As INT2024-02 is a newly established programme, there is significant opportunity to shape its direction and improve its effectiveness. The following recommendations are proposed to guide the development of future specimen retention and data collection initiatives:

Programme identity and development

- Reiterate the programme's role is to complement not duplicate Liaison Officer and FNZ Compliance Officers work

Specimen collection strategy

- Further refine the criteria for specimen retention selection to ensure relevance and scientific value
- Targeted retention based on species that are troublesome to ID via footage review
- Targeted retention of protected species that threaten to restrict or close fishing grounds, necropsy data may provide insights into underlying conditions that resulted in the bycatch event, such as diseased, aged, or starving seabirds
- Consider operating retention in defined blocks e.g., six-month intervals to allow fishers and LFRs periodic breaks

Sample integrity during shipment

- Invest in slicker pads or similar cooling materials to maintain sample quality during transport, particularly in warmer conditions or longer transit duration
- Redesign shipping labels to clearly indicate refrigeration requirements in addition to frozen goods stickers

Science focused engagement

- Emphasise the scientific purpose of the programme in communications with fishers. Many are motivated by contributing to science, and this framing could enhance participation and support

Enhanced and strategic data collection

- Reassess the types of data being collected to maximise vessel visits and their value
- Ask new and targeted questions that are not currently being addressed but could contribute to reducing protected species interactions. For example: does the distance between floats and hooks influence interaction rates?
- Incorporate questions from scientific coral and seabird experts
- Seek input from Fisheries New Zealand (FNZ) video review teams, are there data points they wish were collected during fishing operations that would aid their video review
- Improve data quality, specimen labels should capture additional environmental information, particularly depth- which coral scientists regard as useful information. Fishers have generally shown a willingness to record additional data

Education and innovation

- Leverage the programme as a platform for education and innovation in mitigation measures and protected species ID
- Fishers could be invited to propose refinements to mitigation measures during vessel visits, with a focus on tori lines and bird deterrent devices at hauling stations. Innovation workshops are great, but fishers often find attending these difficult due to the weather dependent nature of the industry. This programme provides an alternative way of gathering innovation thoughts and sharing workshop findings directly back to vessels
- The mitigation toolbox needs to be expanded especially as anecdotal evidence suggests birds are becoming accustomed to existing tori line configurations, diminishing their effectiveness and reports that tagged birds are “fearless of humans” and not easily deterred at the hauling station
- Better outreach materials tailored to inshore fishing. Coral identification guides were the most requested guide but need streamlining to cover only the species most encountered in shallower fisheries, by depth, <500
- Clear, poster-style visual aids akin to the iconic “Kiwi fish n chip chart” could be produced for protected species, fish, seabirds, corals to strengthen recognition and awareness
- In the longer term, a mobile app that pairs image recognition species ID with e-logbook integration would simplify reporting and prevent duplicate data entry by fishers
- Share final coral and seabird IDs with fishers, include photos, reference to relevant pages in the coral ID guides, distribution, interesting facts, participants showed a desire to learn
- Education and resources need to reach all fishing crew. Skippers often rely on crew for catch composition. Misidentification and forgetfulness can lead to reporting errors and potential financial penalties, accurate and consistent protected species recognition can be improved across the fleet
- Multilingual protected species guides and educational materials to reflect current workforce trends. Many fishers are hiring foreign crew from Indonesian and the Philippines

Conclusion

The INT2024-02 pilot study has shown that port-based specimen retention and data collection programmes are a practical and valuable complement to EM systems in inshore fisheries. The quality of collected and retained specimens, strong fisher participation, and effective logistics demonstrate that this model can fill data gaps in species identification, gear configuration documentation, and mitigation strategy evaluation. This approach also fosters collaboration between fishers, researchers, and management agencies, improving the flow of information and mutual understanding.

Continued investment in fisher education, development of simplified ID tools, and support for innovation in mitigation techniques will strengthen the long-term viability of this model. As electronic monitoring becomes more prevalent, port-based data collection can provide the species-level detail and context required for effective marine protected species management in New Zealand.

Acknowledgements

This pilot study would not have been possible without the commitment of the participating fishers, who generously shared their time, expertise, and vessels.

I also thank Moana and Leigh Fish for their support in facilitating specimen collection, shore storage and shipment from their sites. Thank you to NIWA and WMIL for their prompt comms and support through the process.

Special thanks go to the CSP staff in Wellington for their continued guidance, accessibility, and support. Thanks also to Kaitaia and Whangarei FNZ Compliance Officers for allowing the storage of programme materials on site, and their willingness to answer and support with compliance based fisher queries.

This truly was a team effort between many components of an entangled fishing industry. The pilot's success reflects the strength of these collaborative efforts and the willingness of all individuals to go the extra mile and take time out of their busy workdays to support a new initiative.

Appendices

- Fishing Gear & Mitigation Device Forms
- Fisher Information Pack
- A Guide to Seabird Retention by Fishers
- A Guide to Coral Retention by Fishers
- Authority to Retain Permission Letter

Fishing Gear & Mitigation Device Forms

Form copies start overleaf.

Bottom Longline Fishing Gear & Mitigation Details Form

INT 2024-02 Port-based Audit and Protected Species Retention Programme

Vessel Name	
Vessel Registration	

Vessel Operator		**Programme Representative Name**		**Date**	

Location		**Target Species**	

SECTION 1: Bottom Longline Gear Details

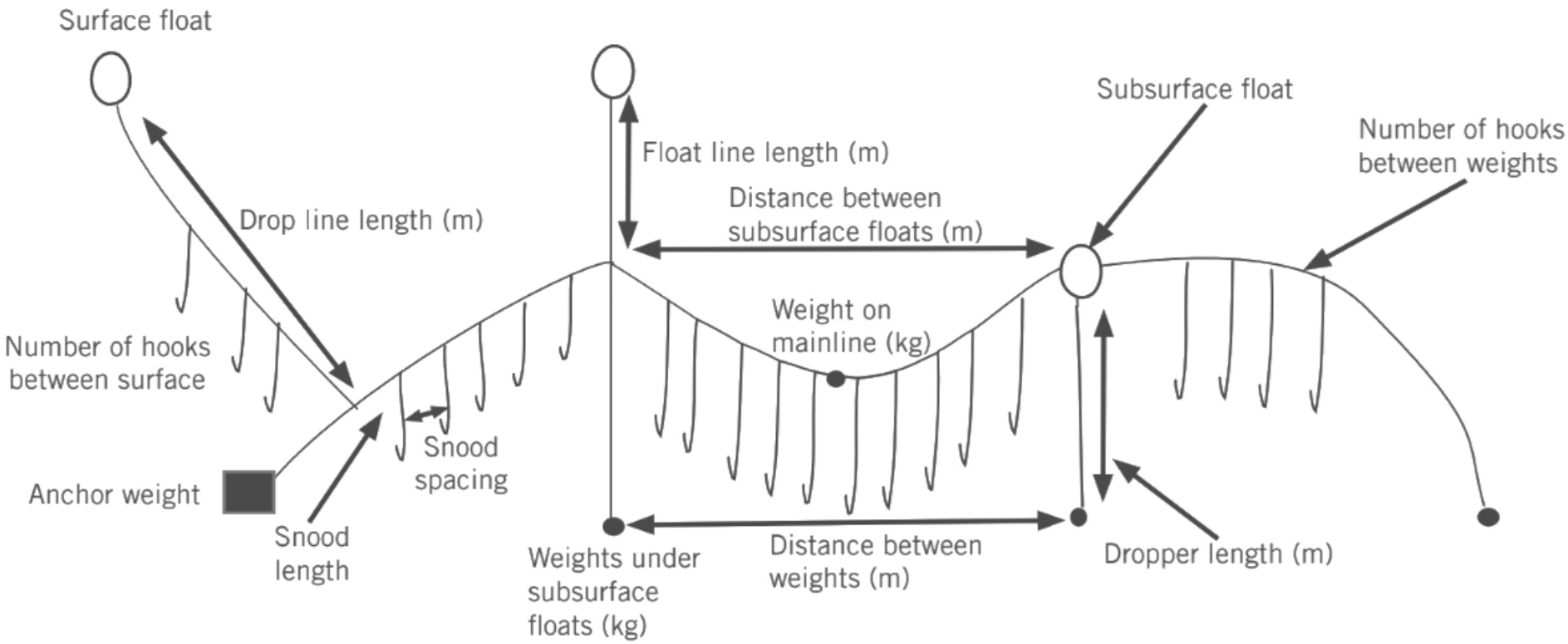
1. Please record and describe the following, if multiple regimes in use please record target species and gear details for each regime

Average distance between weights (m)	**Weight Material**	**Weights under subsurface floats (kg)**	**Subsurface float size**

Comments:

Distance between subsurface floats	**Dropper length**	**Snood length**	**Hook size / type**
(m)	(m)	(cm)	

Backbone / mainline material and diameter	Bait dyed? *(circle)*		
		Comments:	



SECTION 2: Mitigation Device Details

Tori Line details

When is a tori line deployed?	
Tori line condition, streamers brightly coloured?	
Drag section /towed object type	

Tori line attachment point height above sea surface (m) Is it offset to port / starboard and by how much (m) Is the tori line adjustable? How far forward of stern is the attachment point (m)	
Is there a spare tori line or spare parts on board?	
Complete a subset check of streamer spacing and length	

Photos *(circle one)*: **Yes / No**

SECTION 3: Vessel Practices

Tick either Yes (Y), No (N), Unknown (U) – input further details in the comment's boxes provided (as applicable)

#	Description	Y	N	U
1	How is light managed when fishing at night (minimised, angled down, lights with reduced or filtered blue and violet wavelengths (2200k or less / amber), black out blinds? *Record below*			
2	Do you use lasers, type, model, manufacturer? *Record below*			

#	Description	Y	N	U
3	Hauling mitigations used or other deterrents?			
4	Other deterrents used? (bait setter, line depressor)			
5	Photos			
6	Does the vessel carry a copy of the appropriate Operational Procedures, 10 Golden Rules and are crew familiar with these?			
7	Does the vessel have a copy of its Protected Species Risk Management Plan (PSRMP) displayed on board, readily available to crew?			
8	Are crew familiar with the contents of their vessel specific PSRMP?			
9	Describe fish waste / offal discharge practices, storage and discharge location. *Record below*			
10	During hauling is fish waste / offal / used bait held, or batch discharged at intervals opposite to the side the vessel is hauling from?			
11	Is discharge held on board immediately before and during setting?			
12	Are sink rate test records up to date and kept on board? *Record below any additional comments on the performance of these tests.*			

#	Description	Y	N	U
13	Turtle release kit on board?			
14	Familiar with protected species ID?			
15	Requests for information, ID guides, regulations? *If YES record items below*			
16	General comments (vessel / deck cleanliness) - *Record below*			
17	How can this programme help you / fishers? Or do you have suggested programme improvements? – *Record below*			

Surface Longline Fishing Gear & Mitigation Details Form

INT 2024-02 Port-based Audit and Protected Species Retention Programme

Vessel Name	
Vessel Registration	

Vessel Operator		**Programme Representative Name**		**Date**	

Location		**Target Species**	

SECTION 1: Surface Longline Fishing Gear Details

Hook type / size	**Snood length**	**Bait dyed?** *(circle)*
		Yes / No

SECTION 2: Mitigation Gear Details

Hookpods, proportion of gear with pods	**Target depth**	**Other mitigations in use** *(Procella Heavy Hooks)*	**Confirm weighting regime** *(weigh a sub sample of weights) (g)*

Subset check of tori line streamers, spacing and length, provide general comments on condition	**Towed object /** **drag section type**	**Tori line attachment point**	**Is there a spare tori line or spare parts on board?** *(circle)*
			Yes / No

SECTION 3: Vessel Particulars

Tick either Yes (Y), No (N), Unknown (U) – input further details in the comment's boxes provided (as applicable)

#	Description	Y	N	U
1	Hauling mitigations used or other deterrents used? *If YES describe below*			
2	Does the vessel carry a copy of the appropriate Operational Procedures, 10 Golden Rules and are crew familiar with these?			
3	Does the vessel have a copy of its Protected Species Risk Management Plan (PSRMP) displayed on board, readily available to crew?			
4	Are crew familiar with the contents of their vessel specific PSRMP?			
5	Familiar with Liaison Programme trigger points?			
6	Describe fish waste / offal discharge practices, storage and discharge location. *Record comments below*			
7	Is discharge held on board immediately before and during setting?			
8	During hauling is fish waste / offal / used bait held on batch discharged at intervals opposite to the side the vessel is hauling from?			
9	Familiar with protected species ID?			
10	Requests for information, resources, ID guides, regulations? *If YES record items below*			
11	General comments (vessel / deck cleanliness) - *Record below*			

#	Description	Y	N	U
12	How can this programme help you / fishers? Or do you have suggested programme improvements? – *Record below*			

Additional comments / observations *(as applicable)*:

Bottom Trawl Fishing Gear & Mitigation Details Form

INT 2024-02 Port-based Audit and Protected Species Retention Programme

Vessel Name	
Vessel Registration	

Vessel Operator		**Programme Representative Name**		**Date**	

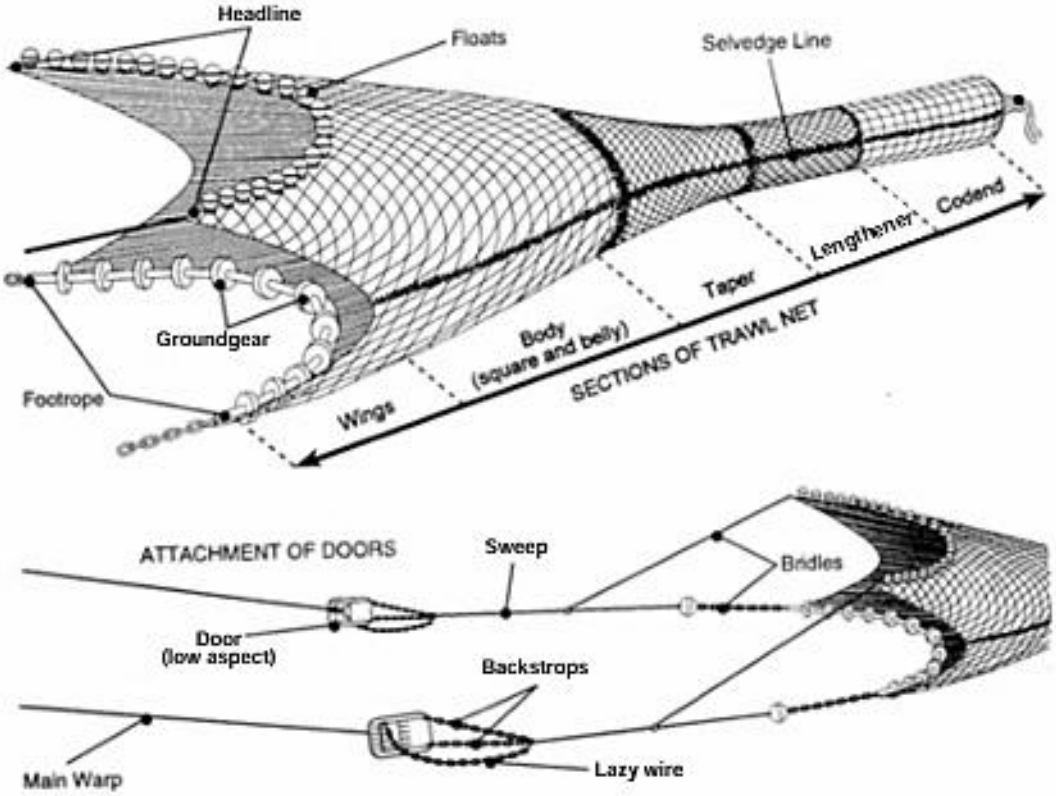
Location		**Target Species**		**Average Tow Speed**	

SECTION 1: Trawl Gear Details

2. Please discuss the following with skipper / crew

Ground gear components				
Maximum size of ground gear	(mm)		(mm)	
Number of codends				
Number of warps / door spread	Number	D/spread (m)	Number	D/spread (m)
Door type / Area	Type	Area (m2)	Type	Area (m2)
Trawl wingless?	☐ Yes ☐ No ☐ Unknown		☐ Yes ☐ No ☐ Unknown	

3. Record additional comments below



Gear equipment code; This is a 3 part aphanumeric code
- Part 1- Write down the number of trawl nets that are part of this gear.
- Part 2 - Write the trawl type eg, BT, MW, BPT or MPT
- Part 3 - Write an sequential number identifing this piece of gear. eg, 1BT1, 1BT2, 2MW1 etc

Door Type; Code with 4 options
- C - Combination door
- H - High aspect door
- L - Low aspect door
- O - Other (describe in comments)

Sweep length; May be zero or near zero for Midwater trawls.
Measured from bridle to doors including backstraps. It is the outermost sweeps.

Top bridle length; This does include the length of laybacks (if present)

Headline length; If it is a multi trawl system then add up all the headline lengths.

Groundgear components; Enter these codes to describe all components present
- B - Bobbins (includes all types norwegian, hollow, solid etc)
- C - Chain as main backbone
- E - Extension piece
- K - Rubber cookies
- R - Rubber blocks
- S - Discs
- T - Tickler chain
- W - Wire as main backbone
- O - Other describe in comments

Number of codends; Count the number of codends
This will be 2 for a trouser trawl or a twin trawl and 3 for a triple trawl

Mesh Configuration; Enter a code to describe the mesh arrangement
- D - Diamond mesh
- H - Hexagonal mesh
- S - Square mesh
- T - T90 mesh (diamond mesh turned 90 degrees)
- O- Other (describe in comments)

General features; Enter a code for each feature if it is present
- C - Clump(s)
- D - Door sensors
- E - Additional electronics (describe in comments)
- F - Chafing material on underside of codend
- H - headline monitor
- I - Codend window
- M - Mesh between bridles
- P - Additional structures on sweeps (describe in comments)
- Q - Additional structures on bridles (describe in comments)
- S - Symmetry sensors
- T - Catch sensor(s)
- W - Wing weights
- O - Other (describe in comments)

SECTION 2: Mitigation Device Details

Bird Baffler details (likely folded whilst in port)

When is it deployed / used? _____

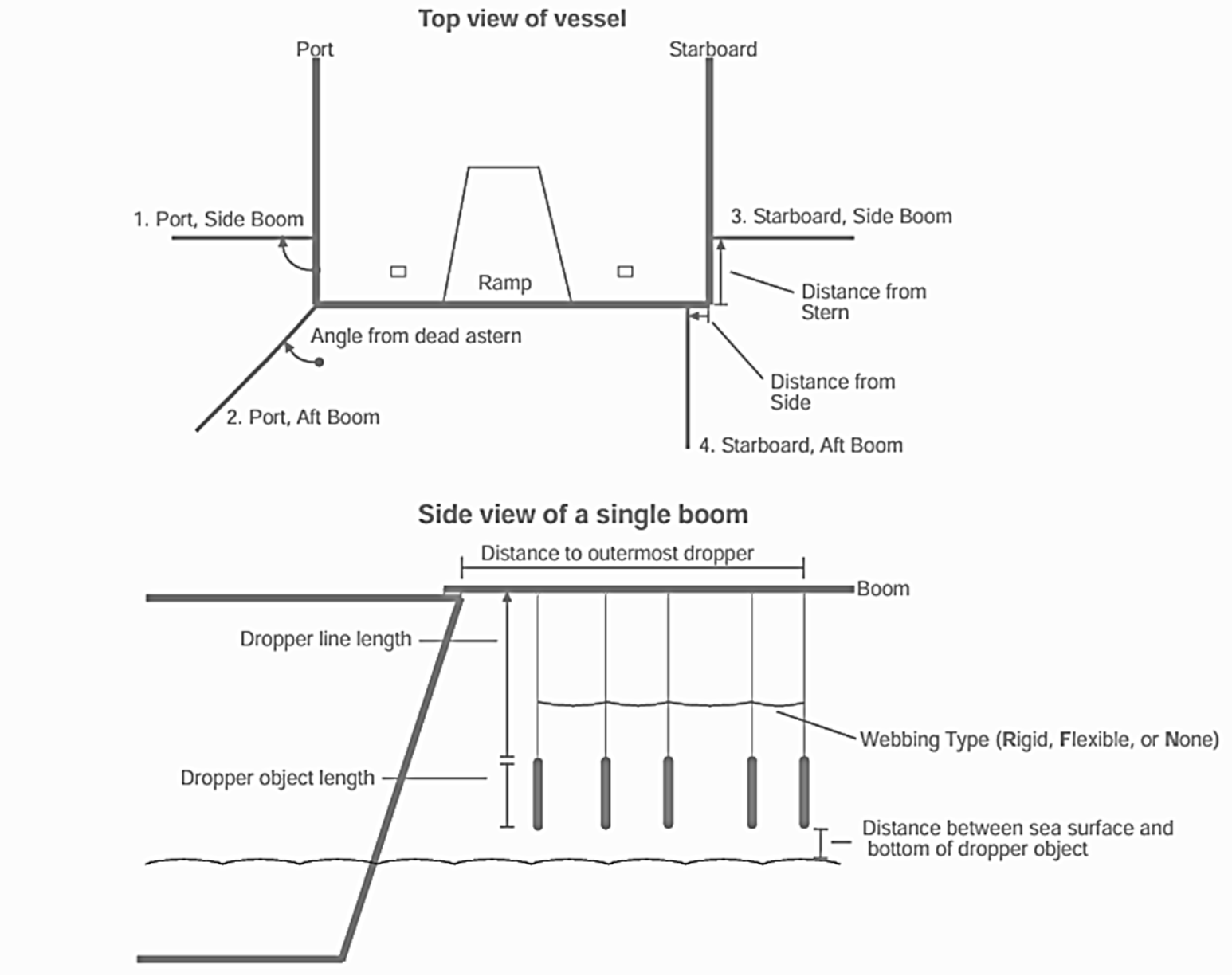
	1. Port Side	2. Port Aft	3. Starboard Side	4. Starboard Aft
Attachment location	Distance from stern . m	Distance from side . m	Distance from stern . m	Distance from side . m
Distance to innermost dropper	. m	. m	. m	. m
Distance to outermost dropper	. m	. m	. m	. m
Number of droppers and webbing type	Number Type	Number Type	Number Type	Number Type
Maximum dropper spacing	. m	. m	. m	. m
Dropper line length	. m	. m	. m	. m
Dropper object length	. m	. m	. m	. m
Distance between sea surface and bottom of dropper object	. m	. m	. m	. m
Dropper material types (list all)				
Dropper material colours (list all)				
Spare replacement parts on board? *Circle correct answer*	Yes / No			

Tori Line details

When is a tori line deployed?	
Tori line condition, streamers brightly coloured?	
Drag section type	

Tori line attachment point	
Is there a spare tori line or spare parts on board?	
Complete a subset check of streamer spacing and length	

Photos *(circle one)*: **Yes / No**


Top view of vessel
Port
Starboard
1. Port, Side Boom
3. Starboard, Side Boom
Ramp
Distance from Stern
Angle from dead astern
Distance from Side
2. Port, Aft Boom
4. Starboard, Aft Boom
Side view of a single boom
Distance to outermost dropper
Boom
Dropper line length
Webbing Type (Rigid, Flexible, or None)
Dropper object length
Distance between sea surface and bottom of dropper object

SECTION 3: Vessel Practices

Tick either Yes (Y), No (N), Unknown (U) – input further details in the comment's boxes provided (as applicable)

#	Description	Y	N	U
1	Does the vessel carry a copy of the appropriate Operational Procedures, 10 Golden Rules and are crew familiar with these?			
2	Familiar with move on rules and their locations?			
3	Familiar with high-risk areas and times?			
4	Does the vessel have a copy of its Protected Species Risk Management Plan (PSRMP) displayed on board, readily available to crew?			
5	Are crew familiar with the contents of their vessel specific PSRMP?			
6	Familiar with Liaison Programme trigger points?			
7	Describe fish waste / offal discharge practices, storage and discharge location. *Record comments below*			
8	Is discharge held on board immediately before or during shooting / hauling?			
9	Batch discharged at intervals if discharged during the tow?			
10	Warp maintenance adequate (splices wrapped, sprags removed)? *Record comments below*			
11	Warp material, wire, synthetic and colour			
12	If fishing or mitigation devices need repairing at sea, how do you go about doing that? *Record comments box below* (needs to be done at a time when low risk to seabirds / mammals)			

#	Description	Y	N	U
13	Familiar with protected species?			
14	Requests for information / resources, ID guides, regulations? *If YES record items below*			
15	General comments (vessel / deck cleanliness) - *Record below*			
16	How can this programme help you / fishers? Or do you have suggested programme improvements? – *Record below*			

INFORMATION PACK

INT2024-02 Port-Based Audit and Protected Species Retention Programme (The "Port-Based Programme")

Introduction

The Department of Conservation's Conservation Services Programme (CSP) is launching a new pilot programme to continue collecting vital information from fishing vessels. This initiative delivered by our contractor, Amba Blommaart, aims to address knowledge gaps created by the transition from at-sea observers to onboard cameras.

Objectives

The Port-Based Programme focuses on continuing the collection of essential data, specifically:

1. **Specimen Retention under the Wildlife Act 1953:**
    - Seabird carcasses for necropsy and species identification
    - Coral samples for species identification
2. **Data Collection:**
    - Information on mitigation devices and fishing gear specifications and configurations.

Previously these tasks were performed by at-sea observers as part of the Observer Programme under DOC CSP. With reduced observer coverage, we are developing alternative ways to ensure this valuable information continues to be gathered.

Programme Rollout

Our contractor, Amba, will pilot this programme in Northland ports, engaging with a mix of Bottom Longline (BLL), Surface Longline (SLL), and Bottom Trawl (BT) vessels from March until approximately June 2025. She will collaborate with fishers and fishing companies to develop practical, fisher-friendly solutions.

Key Considerations

We are committed to ensuring:

- **Fisher health and safety** remains a top priority.
- **Minimal disruption** to fishing operations.
- **Mitigation of potential contamination** concerns.
- **Open communication** and feedback from fishers and companies throughout the process.

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We want to work closely with vessel operators and Licensed Fish Receivers (LFRs) to develop a collaborative, flexible, and practical approach that suits all parties involved.

How the programme will work:

- **All programme materials will be provided** to participating vessels, including specimen kits with bags, sacks, insulated tubs, PPE, gloves, and hand sanitiser.
- **One-time vessel visits** will be scheduled at the fisher's convenience.
- **Onboard engagement:** During visits, we will work with crew on data collection steps, ensuring information is shared and everyone understands how these efforts support conservation.

Specimen collection:

Fishers will play a key role in retaining specimens at sea. To streamline the process and distribute the workload, specimen collection will be managed by those working on land. Potential options for collecting and transporting specimens from vessels include:

- **LFR fish trucks** during routine unloads.
- **Trusted community members, ex-fishers, or fishing families.**
- **DOC Rangers or MPI staff.**

Collection Process:

- Fishers will double-bag specimens and place them in a sack (as previously done by observers).
- The sack will ensure discretion, addressing potential concerns around optics.
- The sack will then be collected from the vessel on their return to port and transported to a location with a chest freezer for storage, facilitating bulk shipments and reducing costs.
- The pilot phase will allow us to test and refine different approaches to make the process as effective as possible.

Your input and feedback

This programme is designed to work *with* fishers. We welcome your feedback and suggestions to ensure the process is efficient, practical, and beneficial for all involved. Let's work together to support conservation efforts while keeping operations smooth and undisrupted.

For more information, or to provide feedback or get involved, please contact:

Amba Blommaart: 020 437 5043

Specimen Retention and Engagement Letters

For each participating vessel, a Specimen Retention letter and an Engagement Letter are sent by DOC CSP to the operator. Letters will be sent once a verbal agreement is reached between the Contractor and fisher establishing a time to visit their vessel.

Frequently Asked Questions

Q: How will the information about my fishing and mitigation gear help reduce protected species captures?

A: Details on fishing and mitigation gear will help inform our understanding of what is currently being used and how. This knowledge will allow us to provide better advice and explore how the implementation of best practice mitigation can be improved.

Q: If I have a camera on board, do you still need to collect this information?

A: Yes, although onboard cameras can collect a lot of information there is some data that they cannot, such as gear specifications and protected species identification. It is often difficult to identify seabird and coral species using only onboard camera footage as specimens can be too far away from the lens or obscured by sun glare/fog.

Q: Why can't my Liaison Officer collect this information?

A: The liaison programme cannot self-audit and with reduced numbers of observers on inshore vessels there are fewer Protected Species Risk Management Plan (PSRMP) audit forms being completed. This pilot offers an opportunity to conduct independent reviews and fill this gap. Identifying the specifications of mitigation in use will contribute to our knowledge of protected species capture events and will help inform our advice towards risk reduction and engagement through the Liaison Programme.

Q: If my tori line or sink rate tests are not legal, what will you do about it and who will you tell?

A: DOC CSP and the Contractor for this project are not fisheries compliance officers, the purpose of this pilot is to gather data, not to act as an additional regulatory or compliance body. If any non-compliant aspects of your fishing operation are identified during the visit, a friendly conversation will take place, and you will be given advice on how to rectify the non-compliance. As always, your liaison officers will assist with information, guidance and resources.

Q: Where will the information you collect on your forms be stored?

A: Information collected on these forms will be stored securely in the Department of Conservation's file network and will be accessible only by staff of the Marine Bycatch & Threats team that delivers the CSP programme.

Q: Who is this information shared with?

A: Generalised findings of this pilot will be shared with Fisheries New Zealand (MPI) and Seafood New Zealand (industry) and made available publicly in the form of a project report. Any information that is to be shared will have identifying and/or commercially sensitive information removed (e.g., vessel/operator name, port location and contact details). On completion of the project, the final report can be shared with you directly and will also be accessible via the DOC CSP webpage:

https://www.doc.govt.nz/our-work/conservation-services-programme/

Q: What is DOC's role in the observer programme, and why do they want to collect this data?

A: The observer programme is managed by MPI and partially funded by DOC through the Conservation Services Programme (CSP). Observers collect data on protected species interactions and the use of mitigation measures on behalf of DOC. With the rollout of onboard cameras, observer coverage has decreased. While cameras provide valuable information, they cannot capture certain details, such as gear specifications or accurate protected species ID or necropsy information. To address this gap, we are developing a protected species retention programme and conducting one-off vessel visits to collect the critical information that is no longer being gathered. This is nothing new, it is just happening in a different way.

Pilot Programme materials

The below materials will be used to retain specimens during the pilot programme:

Chilltainers

- 84445 Redelivery Home Delivery
- 84446 Small Home Delivery
- 544363 Lobster

Chilltainers, thermal packaging, environmentally friendly packaging, sustainable packaging, chilled seafood packaging, recyclable packaging

Smartpack woven polyprop sacks

- WPP1201 (same sack that Observer Services uses)

Smart Pack | New Zealand | Australia

Polyprint packaging

- 300x450mm 70MU plain poly bag
- 400x600mm 70MU plain poly bag

Food Packaging | NZ Made - Polyprint Packaging Ltd

Stowers insulated tub

- F series insulated tub 6937 75Lt
- Plastic HDPE, foodgrade approved

Insulated Tubs - Stowers Circular SolutionsStowers Circular Solutions

A guide to SEABIRD Retention by Fishers

Birds carry diseases, so be safe! Wear gloves during handling and clean/sanitise your hands afterwards

Thank you for your assistance in improving our understanding of protected seabirds at sea. Obtaining freshly dead seabirds gives us an opportunity to verify identification down to species level and have greater scientific understanding of the species.

By displaying the seabird to the camera, we can better identify the exact species.

Remember to report the capture by completing a non-fish protected species catch report (NFPS).

To display the seabird to the camera:

1. Clean the camera lens with a clean damp cloth
2. With gloves on display the seabird to the camera:
   - Bill (left and right sides)
   - Legs (and any leg tags)
   - Spread wings (showing front and back feathers)

Bagging and Storage:

After retrieving the seabird, ensure it is bagged away from the area used for landing/processing the catch. When handling birds always use gloves and avoid direct contact with blood, faeces, and other bodily fluids.

The maximum load for each bird sack is one large albatross, two smaller albatrosses/giant petrels, or ten smaller seabirds (e.g., petrels, shearwaters). Do not over fill bird bags. It is better to have several bags which can each be easily lifted by one person rather than a single heavier bag that is difficult to handle and may tear.

- Record vessel ID, date / time of capture, on the bags provided
- Place the specimen(s) in the labelled bag, then into a second bag for extra security
- Secure the bag with a cable tie and store in the insulated tub provided

Remember to add ice to the chilly bin daily to keep the specimen cold

Communication

Please notify Amba via text, call or whatsapp to arrange specimen collection during your next port call.

If you have any questions or have ideas for improving this process, please contact:

Amba Blommaart: 020 437 5043

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A Guide to CORAL Retention by Fishers

Complete a non-fish protected species catch report (NFPS) estimating the weight of each coral species caught.

Bagging and Storage

- Record vessel ID, date / time and time of capture, on the bags provided
- If possible retain entire specimen, otherwise collect small cutting/subsample of coral
- Place the coral in the labelled bag and secure with a cable tie
- Place the bagged coral into the chilly bin provided till collection

Remember to add ice to the chilly bin daily to keep the specimen cold

Communication

Please notify Amba Blommaart via text, call or whatsapp to arrange specimen collection during your next port call.

If you have any questions or have ideas for improving this process, please contact:

Amba Blommaart: 020 437 5043

Authority to Retain Permission Letter

Recipient's name
Position
Address line 1
Address line 2
Suburb, town, postcode

Date

DOC office name
Address line 1
Address line 2
Suburb, town, postcode
doc.govt.nz

DOC-XXXXXXX

Tēnā koe <insert name>

Authority under section 53 of the Wildlife Act 1953 to collect and retain biological samples from bycaught protected seabirds and corals

The Department of Conservation (the Department) undertakes research to understand and address the effects of commercial fishing on protected marine species in New Zealand waters on behalf of the Minister of Conservation. In addition to marine mammals, marine reptiles (sea turtles and snakes) and some marine fishes, the following seabird and coral species are protected within New Zealand fishery waters:

Group	Common name	Code	Scientific name
Birds	all seabirds – except the black-backed gull		
Corals	black corals	COB	all species in the order Antipatharia
	stony corals	SIA	all species in the order Scleractinia
	hydrocorals	COR	all species in the family Stylasteridae
	soft (previously 'gorgonian') corals	SOC, GOC	all species in the order Alcyonacea (previously 'Gorgonacea')

In all instances, the entire animal or any part of the animal (alive or dead) is protected in the entirety of their range in New Zealand.

As you will be aware, it is an offence under the Wildlife Act 1953 for anyone to deliberately kill or injure protected marine wildlife, or to possess any protected marine wildlife or any part of a protected species without authority. As you have offered to assist the Department by sampling protected species accidentally killed during your normal fishing activities, this letter provides the necessary authority for you to take and retain possession of those samples until they are provided to us. This authority is valid for **five years** from the date of signature or until such time as it is revoked by the Director-General of Conservation, or you notify the Department that you no longer wish to participate in the project.

You have been supplied with a sampling kit and instructions on how to collect and deliver biological samples from the protected species listed above.

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Provided the samples are collected in accordance with these instructions you are lawfully authorised to possess them. By providing these samples to the Department you will be contributing to knowledge of the biology of these species (including distribution and population size) and assisting in their protection and management.

All deceased protected seabird and coral species should be retained for provision to the Department unless it is not possible for safety or vessel/crew capability reasons. It is especially important to retain specimens if:

- Identification is uncertain.
- The specimens are rare or unusual.
- The specimen is a seabird with leg bands or tracking equipment (electronic devices either taped to the dorsal feathers or zip-tied to the legs), or markings that relate to a study. Remove any electronic devices before freezing the carcass.

This authority does not replace your obligation under the Fisheries Act 1996 and section 63B of the Wildlife Act 1953 to record and report the circumstances of the interaction.

Please retain this letter or a copy of it with you as evidence of your authority to collect and hold samples. Compliance with the reporting requirements in section 63B provides a further defence against prosecution.

Your support for this work is greatly appreciated.

Nāku noa, nā

Stephanie Rowe
Deputy Director-General
Biodiversity, Heritage and Visitors