

Report
10 July 2019

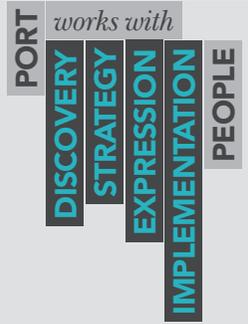
Department of Conservation

MIT2018-01: Protected Species
Engagement Project

Draft interim progress report for the
Conservation Services Programme

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Introduction

Reducing the impacts of commercial fishing on protected species relies on individual fishermen actively applying best practice mitigation methods to their fishing activity. Applying and developing mitigation methods in specific circumstances also requires an understanding of the protected species that may be impacted, and the nature in which they interact with fishing activity.

When protected species are accidentally captured in commercial fisheries, correct handling can greatly reduce the negative impact to the animal. This project involves the production of multimedia resources for fishermen on mitigation measures and best practice handling methods. It builds upon existing educational resources developed (protected species identification guides etc.)

Objectives of this project

1. To produce six short animated videos on key mitigation measures to demonstrate the deployment of key mitigation gear in the commercial fishing industry
2. To produce a pictorial guide on the handling of marine protected species
3. Provide translations in five languages for both the videos and the handling guide

Method

To address the first objectives of this project, six animated videos on key mitigation measures were developed. Videos provide a quick and effective way of delivering information across a range of platforms. Animation was the preferred method of information delivery due to the 'paired back' nature of the imagery enabling main messages to be communicated effectively. The animations include both on screen text and voiceover. Videos range from 1:13 to 2:50 minutes and were prepared based on multiple rounds of presentation and feedback. Initial stakeholder feedback was sought on the individual storyboards at a workshop on 7 March 2019 where representatives from MPI, DOC and Fisheries were present. Topics of the six videos cover: bird bafflers, tori/streamer lines, hook shielding devices, discard management, light management and sink rate. Feedback was collated and amendments made before proceeding with animation.

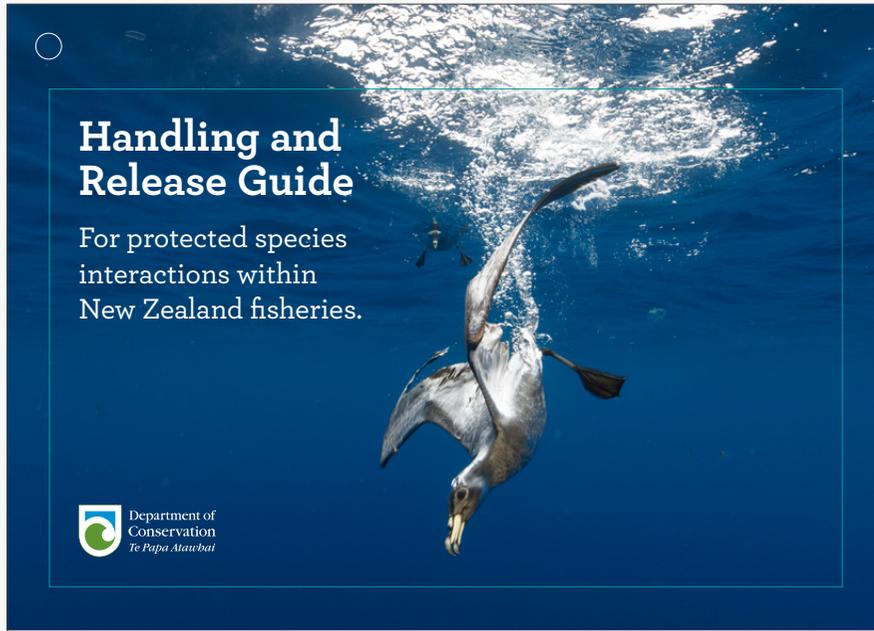
The pictorial handling guide has also been developed alongside the video production with illustrations developed based on detailed photos and guidance provided by DOC. Protected species covered in the guide are seabirds, dolphins and whales, rays, turtles, seals and seal-ions, sharks and sea snakes. As with the mitigation videos, multiple rounds of presentation and feedback was sought. The pictorial guide has been designed to be utilised as a digital and physical resource. The guide is designed to complement the current protected species identification guides – to be printed to A5 size on waterproof paper with a ring bind.

All resources were developed based on current DOC design guidelines.

Next steps

1. The resources will be presented to the Conservation Services Programme Technical Working group on 17 July 2019 for final feedback before going to translation services for translation into Russian, Indonesian, Korean, Ukrainian and Japanese. Resources to be finalised by August 2019.
2. Delivery avenues investigated and confirmed to allow the most efficient dispersal of the resources to the target market.
3. Creation of a short promotion animation for social media
4. Final report to be delivered after 6 months of resource circulation covering the effectiveness of the resources and recommendations going forward.

Handling and Releasing guide



Handling and Release Guide

For protected species interactions within New Zealand fisheries.



Seabirds

pg 1

THINK FIRST: Safety Around Seabirds

Large birds can inflict a serious bite, it is recommended to wear gloves and eye protection if handling seabirds.

Immobilise the beak and feet with a firm hold to avoid bites and cuts.

Hold birds at waist-height, well away from your face.



immobilise the feet and beak

All seabirds in New Zealand are protected except the black backed gull. The risks to seabirds are highest where there is overlap between fishing operations and large numbers of foraging seabirds.

If a seabird is noticed on a line, stop the vessel to reduce drag on the line. When the bird is within reach, gently bring it on board by hand or using a net. Do not pull the bird up on the line as this may cause further injury. Do not handle birds by wingtips as it can break the wing.

With one crew member holding the bird, another crew member can carefully detach the fishing gear from the animal.

Small birds: e.g. storm petrels, diving petrels. Bird can be held in one hand with its back in the palm of the hand and the neck between index and middle fingers.



Small birds



Medium birds



Large birds



Penguins

Medium sized birds: e.g. petrels, shearwaters. Hold the body of the bird with both hands with wings folded. If the head also needs to be restrained hold the bird by the neck or bill without covering nostrils.

Large birds: e.g. albatross. Hold the body and folded wings in your arms or crouch over the bird holding it in place with your legs. Restrain head by holding the neck or bill without covering nostrils.

Penguins: Hold the penguin firmly by the neck. Put the penguin under your arm to hold the flippers in.

Gannets: Hold back of head firmly and maintain grip to avoid bites. Hold the bird, with wings folded, against body. Do not hold the bill shut.

Seabirds

pg 2

If a live seabird is landed on the vessel

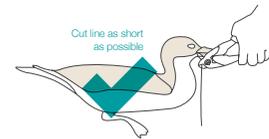
- Once a seabird is on board, move slowly around it.
- Keep the bird's bill away from your face to avoid injury.
- Cover the bird's eyes and head with a loose cloth to help calm it, making sure to keep nostrils exposed. For gannets, which do not have nostrils, allow the bill to stay slightly open.
- Fold wings into resting position and hold gently but firmly to the bird's body. Avoid applying pressure to the breast as this may cause damage. Never restrict the bill or legs with tape or bands.

How to remove a hook

- With one crew member holding the bird, another crew member can detach the fishing gear from the animal.



Cover the bird's eyes and head with a loose cloth to help calm it



Cut line as short as possible

- **Waterlogged birds** will need to be dried off before release. Dry any excess water off carefully with cloth. Place the bird in a box with air holes in a sheltered area away from sunlight and wind. A towel in the base of the box with aid in absorbing excess water from the bird. Do not place the box in a heated wheelhouse or galley. The animal is safe to release once feathers are dry and it appears alert.



Dry off waterlogged bird before release

- **Exposed hooks in bills or neck** can be snipped off. Flatten the barbs with pliers or cut off barbs with snips if pulling hook back through the tissue.
- **If the hook is swallowed**, cut the line as close to the mouth as possible. Do not try and pull hook out from inside the bird. Untangle and cut away any line caught around the bird's wings, body or legs.

Animation - storyboard for Streamer/Tori Lines

1280 x 720 pixels



- (i) birds hanging around really close to line
 - (ii) a tori line pops up, birds reduce and keeping their distance
 - then a deeper line with a shorter tori line
 - then two cables representing a trawl and tori lines over both

(i) (ii) (a) (b) (c)

Make sure you know of any legal requirements around tori line use in your fishery

any language goes here

XYZ 123

(1) Seabird scaring devices deter seabirds from coming into contact with fishing gear, tori lines and bird buffers are the main devices utilised by vessels. Tori lines are a cheap and effective deterrent to seabirds interacting with fishing gear, they are a legal requirement in some fisheries.

Each vessel's tori line will be slightly different or specific to the vessel. You will need to tailor your tori line (a, b, c) to ensure that it works well while meeting the legal specifications of your fishery. Make sure you know the legal requirements around tori line use in your fishery.

Adjust position to match the conditions

paired tori lines over each warp cable

(1) star → (2) fish ← (3) wind direction ← (4) add another tori line

To be effective, a (1) single tori line should be deployed directly above the mainline (or slightly to the windward side of the mainline). In order to achieve this in all weather conditions, it must be possible to adjust the attachment position of the tori line.

(3) Wind strength and direction in relation to vessel course, can deflect the line away from its desired position over the hook line. The line or cable is exposed, a single tori line becomes ineffective.

(4) If a line or cable is exposed, it becomes ineffective. An additional tori line will aid in providing more protection.

(1) aerial extent (2) the heavy sagging line

arrows appear with text

(1) (2)

When deployed, streamers should reach the sea surface in the absence of wind and swell

(3) animate some streamers tangling with an x over top

colours change out with narration

red yellow pink orange

It is considered best practice to (1) maximise the aerial extent of tori lines to deter birds from the largest section of line, both above and below the water. Towing an object at the end of the tori line can help increase tension/drag on the line and therefore increase the aerial extent.

The use of appropriate materials is an important consideration; (2) if the tori line is too heavy it will sag under its own weight and not achieve the desired aerial extent

The (1) length, (2) and spacing of streamers are important factors in keeping seabirds away from fishing gear.

(3) Streamers should not become tangled, either with each other or with the tori line. Attaching streamers to the tori line by a swivel allows free movement and will reduce the chance of tangling

Bright coloured streamers such as fluorescent red, yellow, orange or pink work well during the day, night sailing requires a colour that contrasts with the surroundings

only effective if:

- fit and proper
- spare parts are onboard
- a maintenance schedule is followed
- worn and lost parts are replaced

bold as read

Mitigation devices are only effective if they are fit and proper, so it's important to carry spare components onboard to replace damaged or lost equipment

Department of Conservation Te Papa Ataturu

For more information on mitigation measures that may be relevant to your fishery go to:

www.doc.govt.nz/csp