BYCATCH BYLINES

Issue 31 | May 2018

HEADLINE

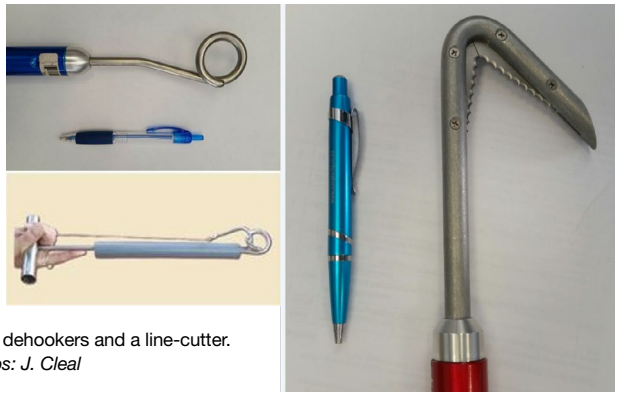
Changing times for turtles

Warmer oceans could mean more sea turtles in our waters. How can we keep them out of fishing gear, and what should be done if they are caught?

Sea turtles have always visited New Zealand waters. Five species may be found here – leatherback, loggerhead, green, hawksbill and olive ridley turtles. Turtle captures are reported from our surface and bottom longline, and inshore trawl fisheries. While almost all reported captures occurred around the North Island, turtles have been seen as far south as Fiordland. All turtles prefer warmer waters, and so we should expect to see more turtles around New Zealand as sea temperatures rise. That may also mean that turtle interactions with fishing gear increase. So, what can be done to reduce capture risks? And, when turtles are still alive, how can they be released to maximise survival?

Turtles spend most time close to the ocean's surface layers. Therefore, fishing below 40 m depth reduces the risk of turtle captures. In surface longline fisheries, use of larger (18/0) circle hooks reduces capture risks. Using hookpods (below) also reduces turtle exposure to surface longline hooks, because hook barbs are enclosed as snoods sink to fishing depth. If turtles are caught on longline gear, minimising pull on the line will reduce injuries. Small animals may be brought aboard using a dip net. Where turtles have been hooked and the hook is accessible, bolt cutters should be used to cut off the barb, to enable safe removal of the hook from the turtle. If turtles are mouth-hooked, carefully placing a broom handle in their mouth to hold it open makes hook removal safer and easier.

If the hook has been swallowed, cut off as much of the snood as possible, without pulling on it or damaging the turtle's throat.



Turtle dehookers and a line-cutter. *Photos: J. Cleal*

Large turtles should be freed by cutting the line as close as possible to the turtle, while the animal is still in the water.

Dehookers and line-cutters can also be used to free captured turtles from longline gear.

If turtles are inactive, they may still be ok but could have water in their lungs. For animals brought onboard, raise the rear flippers about 20 cm to help drain the lungs. Keep recovering turtles out of the sun and cover them with wet towels (except their nostrils). Turtles can take hours to recover. They should then be released headfirst, ideally when the propeller is stopped.

As a member of the Western and Central Pacific Fisheries Commission, New Zealand has an obligation to reduce sea turtle mortalities.

To receive a turtle dehooking kit for longline fisheries at no charge, contact John Cleal (email LO.Advice.SLL@gmail.com; or phone 021 305 825).

WHAT'S UP?

Hook, line and … pod?

By hook or by crook, mitigation just got cheaper. Hookpods are on sale until the end of June.

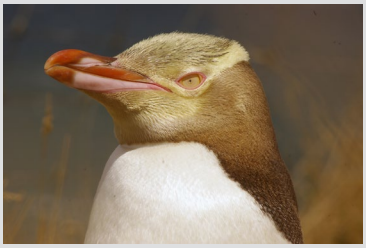
- Surface longline fishers will already know about hookpods – plastic see-through devices that cover baited hook barbs on setting and open up underwater to fish.
- Pods have been tested on surface longline vessels overseas and in NZ over the past few years.
- Like all mitigation measures, some people like pods more than others, but cost has been a worry for most.
- Hookpod Ltd is now offering pods for a reduced price of NZ$7.50 per pod, for orders placed before 30 June.
- To find out more, go to *http://www.hookpod.com/*.

A hookpod pre-deployment. *Photo: https://www.crowdfunder.co.uk/hookpod-technology-to-save-seabirds-and-turtles/*

WHAT THE FAQ?!

Hoiho ahoy!

Times are tough for yellow-eyed penguins (hoiho). Other than their distinctive eye colour, what else is special about these icons of our penguin world?



The yellow-eyed penguin or hoiho. *Photo: © M. P. Pierrephp?curid=17942391*

- Hoiho breed from Banks Peninsula south along the east coast of the South Island, on Stewart Island/Rakiura and surrounding islands, and in the subantarctic Auckland and Campbell Islands. They sometimes travel to the North Island.
- About 250 pairs of hoiho remain on the mainland.
- Many threats affect hoiho: predators, disease, human disturbance, dogs, habitat loss, and fishing.
- Early life is tough for young hoiho, with 80% estimated to die in their first two years.
- Hoiho have a varied seafood diet and can dive to depths of 120 m.

THE BIG PICTURE

Chatham albatross translocation is complete

After five years of moving chicks between islands, now it's up to the birds! The Chatham albatross translocation is complete. How long will it be before birds return to breed?

A rock and a hard place

During this summer, and each of the four before it, teams have travelled to the Chatham Islands with the goal of improving the prospects of the Chatham albatross. This albatross has only one breeding site in the world, on a rock stack called The Pyramid in the Chatham Islands archipelago. That literally means that all of their eggs are in one basket – risky for any bird. A major event on The Pyramid could have dire consequences for the species' future.

Creating another breeding site provides an insurance policy for the Chatham albatross. However, it's tricky to do and takes time. Most albatrosses return to breed at the place they hatched. Adult albatrosses also tend to return to the location where they first bred. Both of those traits mean creating albatross populations in new places relies on young birds. Humans can also lend a hand. Enter the translocation teams!

The real deal and the support team: a young Chatham albatross (right) next to a decoy adult (left). *Photo: https://www.facebook.com/chathamtaikotrust/*

Time to grow …

Each summer since 2014, translocation teams have moved young Chatham albatross chicks from The Pyramid to another Chatham Island location called Point Gap. This past summer, 60 chicks made the interisland journey. At Point Gap, the chicks are fed by their human carers while they sit on artificial nests and grow. (Note the orange bucket nest showing in the photo.) Decoy adult albatrosses (also shown in the photo) spend the summer near the young ones too. Their job is to ensure the chicks know that they themselves are albatrosses, and what adults of their own kind look like. There is also Albatross FM – a sound system that plays albatross calls, to help the chicks feel at home.

For the translocation teams, there is plenty to do. Taking care of the chicks means more than feeding. This past hot summer, keeping the chicks cool was a significant issue. Team members sprinkled birds with cooling water to fight the heat. The team also monitors feather growth and chick weights over time, to ensure birds are in tip top shape.

… and time to go!

As they get closer to leaving their nests, exercise sessions begin. The birds flap to build up their flight muscles and practise their lift-offs and landings. Then they wait for the right night to leave. The fledglings head to Chile for a few years of OE.

By the numbers, that's two islands, five years, more than 200 people, 14,000 volunteer hours, and 18 tonnes of fish and squid, for 262 albatross chicks taking flight from Point Gap. Now, the wait is on. All going well, the albatross chicks that left Point Gap will return there to breed in a few years' time.

Funded through the Department of Conservation MIT2016-01

JPEC Ltd

WORLD WATCH

A whale's tale

There's good news and bad news for whales this month, from the top and bottom of the world.

Canada

Whale entanglements in pot fishing gear happen in many places around the world, including New Zealand. Entanglements of north Atlantic right whale are a critical issue in the snow crab fishery in eastern Canada and the north-eastern USA. The future looks tenuous for this endangered whale, and the main threats to its survival are entanglement in fishing gear and ship strike. Entanglements can result in the death of whales by drowning. Sub-lethal impacts include injuries and reduced calf production. Fewer whale calves obviously means slower population recovery.

In late March, cross-sector measures were announced to reduce the risks to whales in eastern Canadian waters. These include speed limits on large ships in some areas between April and November. For snow crab fisheries, the fishing season will be brought forward with the goal of reducing whale exposure to fishing gear. Government funding has been invested in gear research that is hoped to result in fewer whale-entangling lines in the water. Increased monitoring to better detect entanglements is also on the agenda.

With the whale population in the mid-400s, there is no time to waste.

A north Atlantic right whale entangled in fishing gear. *Photo: https://www.seafoodsource.com/features/right-whale-mortalities-put-spotlight-on-canadian-crab-fishing*

Antarctica

It's better news for humpback whales that congregate to feed around the Western Antarctic Peninsula. Some of these whales spend part of their time in New Zealand waters.

Scientists used DNA profiling to identify individual whales there from 2010–2016. Blubber hormone levels were analysed to detect pregnant female whales. The proportion of pregnant females varied, ranging from a minimum of 36%, to a maximum of 86%. Across all years of the study, an average of 64% of female whales were pregnant. Further, more than half of the female whales found with calves were already pregnant again.

These whales were harvested to near-extinction by commercial whalers last century. Scientists conclude that the high pregnancy rates indicate a population recovering from extreme harvesting pressure.

For the full scientific report, follow the link in *'Want to know more?'*

WANT TO KNOW MORE?

- *The Big Picture:* Watch them grow! See video clips from throughout the albatross chicks' first summer at *www.facebook.com/chathamtaikotrust.*
- *Worldwatch:* Scientists report on some good news for humpback whales at *https://tinyurl.com/Whales-in-Antarctica.*

FEEDBACK

To submit feedback or questions, please email: *johanna@jpec.co.nz*

Banner image: © M. P. Pierre