BYCATCH BYLINES

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HEADLINE

Set up for success: seabirds and surface lining

Seabird liaison officers have made a solid start working with surface longline operators in the past few months. Setting fishermen up to succeed is a key objective of this programme dealing with seabird bycatch risks. How do they do it?

Seabirds and surface liners are not an easy mix. This year, Seabird Liaison Officers John Cleal and Gary Levy are working with vessel operators, skippers and crew to change that. Their work, co-ordinated by Richard Wells, focusses on recognising and reducing the risks that surface lining gear presents to seabirds. The project is funded and managed by DOC's Conservation Services Programme. The approach includes:

- installing vessel-specific plans focussed on managing seabird capture risks
- building knowledge and use of well-constructed tori lines, and distributing the latest materials for these
- supporting safe use of line-weighting – an effective seabird bycatch reduction measure that must be handled with care!
- triggers to remind operators to seek advice if captures happen, and,
- ongoing communication among operators and the liaison team.

And what about the numbers? So far, the liaison team has:

- visited all 36 NZ surface lining vessels once in the past 4 months
- developed, agreed and installed vessel-specific plans on these 36 vessels
- given out 22 km of tori line materials
- been available 24/7 on call to provide advice, and
- started a second round of vessel visits, with 6 vessels visited twice so far.

Above: Seabird liaison officers provide tori line materials to the surface longline fleet. *Photos: R. Wells and J. Cleal*
Right: The first set with a new tori line brought good luck (not for the broadbill!). *Photo: J. Cleal*

The liaison team has appreciated the help and support of companies and skippers as they've made their way around the fleet. Visits will continue through the lead-up to the West Coast southern bluefin season – a tricky time last year.

With all operators on the same page, issues should be addressed faster, better, and more easily than before. Contact John, Gary or Richard for more information. Details are over the page (see *Want to know more?*)

WHAT'S UP?

What's new in New Plymouth?

What makes New Plymouth world-famous in New Zealand? There's more to it than Len Lye, black sand beaches, and being near the home of 'Poi E'. It's also where the Federation will meet in June this year.

- The Federation of Commercial Fishermen's annual conference is on 1 June this year, in New Plymouth.
- New Plymouth is the stage for some tricky fisheries issues. Tensions about seabed mining and management measures for Māui dolphins are ongoing.
- New Plymouth is also known for its good weather and growing number of trendy places to eat and shop – good for folks not going to the conference!
- More information is available on the Federation's website: www.nzfishfed.co.nz/MainMenu

Image: https://www.nzfishfed.co.nz/MainMenu

WHAT THE FAQ?!

A leopard in seal's clothing

We all know New Zealand's fur seal – brown all over, and widespread around the coast. Fewer of us will have seen the leopard seal (or sea leopard). This large seal lives up to its name with its spots and feeding habits.

- Leopard seals are most common around Antarctica. They find their way to New Zealand shores every once in a while.
- They are very individual. For example, each adult male leopard seal has its own unique 'songs'. Different seals also have their own preferred feeding habits.
- The leopard seal is a predator. As adults, they eat a variety of seabirds including penguins, as well as fur seals and fish.
- Leopard seals occasionally visit our coasts, especially beaches in southern New Zealand.

Leopard seal. *Photo: A. Shiva / Wikipedia, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=46771610*

THE BIG PICTURE

No summer holiday for seabird studies

With their oceanic lifestyles, seabirds are hard to keep tabs on for most of the year. Most only come to land to breed. For seabird researchers, that means work takes priority over relaxing with a beer at a summer BBQ. So, what have they been up to in the last few months?

Antipodean albatross

The Antipodes Islands are one of New Zealand's remotest seabird breeding locations. The weather there is anything but summery, with an average January maximum of just 10°C. This year, the (predictably-named) Antipodean albatross is again in the spotlight there.

Researchers have been monitoring numbers of this albatross since 1994. Unfortunately, their latest findings are not good news. Compared with 2000, in 2017 the number of albatross nests with eggs on Antipodes Island appeared to have dropped by around 50%. This year, the nest count was lower than ever. Adult female Antipodean albatross seem to be having a particularly hard time since 2004, with their numbers declining on average at 11% per year. It's not good, but not as bad, for adult males. Their numbers are declining at an estimated 5% per year since 2004.

This bad news begs the question of why? Researchers can't be sure, but suspect that changes in oceanic conditions and albatross feeding locations may be to blame. With survival at sea becoming a critical issue, it's eyes-on Antipodeans to find a solution.

Gibson's albatross in its element at sea. *Photo: JJ Harrison, CC BY-SA 3.0*

Gibson's albatross

Closely related to the Antipodean albatross is the Gibson's albatross. The two can be virtually indistinguishable, but the Gibson's albatross breeds on the Auckland Islands. Work on Gibson's albatross this past summer included collecting sightings of the birds marked with legbands in previous years. Similar to the work on Antipodean albatross, this information is used to estimate annual survival. Unseen birds are not necessarily dead, although their odds of still being alive reduce over time.

Geolocation devices were also retrieved from Gibson's albatross. These devices collect data on where birds travel. They are vital for showing us where birds go at sea, when people are not looking.

In 2016, the Gibson's albatross story was less gloomy than for Antipodean albatross. In the study areas where researchers focus their work, the number of adults breeding for the first time was increasing. The number of chicks produced was also higher than in the previous year. The number-crunching for 2017 is still underway, and time will tell whether it's good or not so good news for Gibson's.

White-capped albatross

Eyes in the sky monitored white-capped albatross on the Auckland Islands in the past summer. Researchers continued counts made using photographs from a helicopter. Virtually all white-capped albatross breed on the Auckland Islands, with the rest at the Antipodes. As for their island neighbours the Gibson's albatross, the number-crunching from summer continues. The seabird scientists won't be taking a break for a while yet.

WORLD WATCH

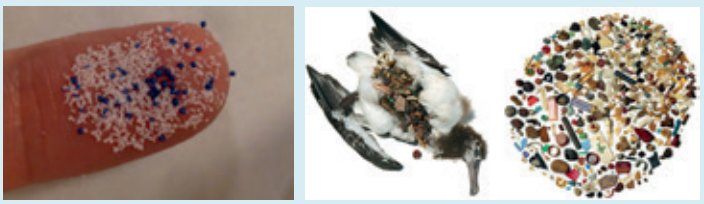
Supply chain to food chain: how does plastic get into seabirds?

Last issue, we talked about how lost fishing gear is proving to be a valuable raw material for manufacturers of everything from speedos to sneakers. Beyond fishing gear, there is a huge amount of plastic that gets into the sea every year. From the hardly visible to the hard to miss, what eats plastic at sea and why?

Microbeads

Many New Zealanders probably know more about microbeads now than they did a few months ago. In January this year, the Government proposed a ban on the use of microbeads in cosmetic and personal hygiene products. The beads really are micro – they may be a crazy 0.001 mm to just 1 mm in size. They may be in products such as toothpaste, body wash, moisturisers, shaving gel, and shampoos. Once those products are used, microbeads wash into waterways and oceans. From there, microbeads find their way into animals. They are eaten by plankton, shellfish and other fish, because they resemble natural foods like fish eggs. Consequently, they also find their way into larger animals, including seabirds, and us when we eat seafood whole.

Internationally, the list of countries that have banned, or propose to ban, microbeads is slowly growing. The USA and Canada are ahead of New Zealand with bans already in place. In Australia, a voluntary phase-out is underway. Seafood New Zealand has supported the ban here, which will help reduce the potential for plastic contamination of our seafood over time.



Microbeads (left) to macroplastics (right) – size doesn't matter as all plastic in food chains is problematic. This Laysan albatross chick died with a stomach full of plastic, before ever reaching the sea.
Photos: (L) https://consumerist.com, (R) www.audubon.org

Macroplastics

Larger plastic items are more visible, and no less problematic. In addition to eating fish that may have already eaten plastic, seabirds also pick up plastic items on their own. Plastics have been found in the guts of albatrosses, petrels and shearwater species returned dead from New Zealand commercial fisheries. Seabirds travel widely and they may not have picked up plastic in our waters. However, with the amount of plastic increasing in the marine environment including around New Zealand, this risk is expected to grow in future.

Marine turtles are the other poster child for plastic pollution. Mistaking plastic bags for their natural food of jellyfish, many marine turtles come to grief. They also eat other plastic items such as balloons, plastic packaging and fragments of plastic containers. While few turtles are found in New Zealand waters, the ones that are here often contain plastic.

Minimising the use of all sizes of plastics, from very small to large, will ultimately improve the state of our seas.

WANT TO KNOW MORE?

- *Headline:* For more information on the liaison work underway among surface longliners, contact John (john.fvms@xtra.co.nz, 021 305 825), Gary (g.levy@xtra.co.nz, 027 5390 399), or Richard (richard@resourcewise.co.nz, 021 457 123).

FEEDBACK

To submit feedback or questions, please email: jpecnz@gmail.com

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