

BYCATCH BYLINES



Issue 10 | March 2014

HEADLINE

The need to breed: creating a new colony site for Chatham albatross

When Chatham albatross need to breed, they all go to one island: The Pyramid. The Pyramid is a 1.7 hectare rock stack—on maps that make main Chatham Island look big, it's still just a dot in the ocean nearby. Having literally all of its eggs in this one small rocky basket makes the Chatham albatross very vulnerable should anything go wrong. However, work is underway to secure another colony site for this striking seabird.

Establishing new albatross colonies involves moving birds between sites, getting them to stay, and having them come back and breed after spending years at sea. That's all pretty complicated and uncertain, but a big success when it works. Japanese researchers are the world experts. There, long-term efforts to increase the population of endangered short-tailed albatross have included moving chicks to establish new colonies. Knowledge secured in Japan is vital to support the Chatham albatross work here.

Before attempting to move Japanese short-tailed albatross chicks, 'test-drives' were carried out on non-threatened albatrosses from the north Pacific—the Laysan albatross and the black-footed albatross. When these trial transfers seemed to go ok, attention moved to the short-tailed albatross. A new colony site on a small Japanese island was made more like home using decoy adult albatrosses and eggs, and broadcasting albatross calls. Chicks were captured and transported to their new home by helicopter, and then fed a delicious fishy chowder almost every day until they left the island. Now, five years since the first chicks were moved, subadult birds are back at the new colony courting. Once they're old enough, breeding should follow.

Using methods already refined on these three north Pacific albatross species, the Chatham Island albatross translocation project is now underway. The new colony site is at Point Gap on main Chatham Island. The first group of chicks was transported here on 23 January. Decoy adult albatrosses, artificial nests, and a sound system playing albatross calls are all helping the new arrivals settle in. More chicks will be brought to the site during the next two years.

For the next three to four months, the chicks will dine on fish and squid delivered by hand by the project team. Project staff will also closely monitor the health and development of the chicks.

When the chicks are ready to leave their nests, they will head out to sea and travel the oceans for at least four years. After seven years, all being well, the birds should return to Point Gap to breed.

With two breeding colonies and effective bycatch reduction measures in place on longline and trawl vessels, the future of the Chatham albatross will be a lot more secure.



The Chatham albatross.
Photo: C. Nash, Creative Commons
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WHAT'S UP?

Rory + tori = better trawl warp protection?

We know that well-built tori lines are generally effective at keeping birds off trawl warps. However, the tori line doesn't stop birds moving down the side of trawlers and drifting into the warp area.

Building on the idea of a trawl skipper, mitigation practitioners in South Africa tested a device that combines the use of a tori line with what they've called a 'Rory line'—a side boom with streamers that shifts birds out from the vessel hull, thereby making it harder for the birds to drift aft into the danger zone. Initial testing showed promising results—16% fewer albatross drifting into the warp danger zone, and a 68% reduction in warp strikes by white-chinned petrels. The Rory line has now been taken on by industry with companies in South Africa agreeing to voluntarily trial different designs. Additional design work may follow.



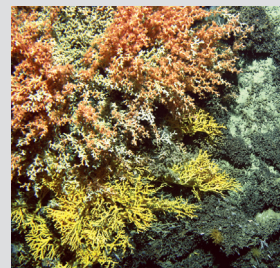
Rory meets tori: a Rory line deployed on a South African trawler. Photo: BirdLife South Africa, Albatross Task Force

WHAT THE FAQ?!

Protected bottom dwellers

Corals may be best known to many people as tropical reefs or jewellery. However, New Zealand waters are home to a diversity of coral species. Other than the water temperatures they live in, what's cool about our corals?

- How deep? New Zealand corals can occur at depths of up to 2000 m but most are found in waters 200–1500 m deep.
- Are our corals bright colours? Yes – for example, the orange and yellow stony branching corals in the photo.



In situ image of branching stony corals taken using NIWA's Deep Towed Imaging System (DTIS). Photo: NIWA

yellow stony branching corals in the photo. New Zealand corals can also be red, pink, black, grey, brown or white.

- Are corals all hard? No. While most coral skeletons are hard and dense or delicate and brittle, others are soft, light and rubbery.
- Which corals are protected? Four groups of corals are protected. These are known as black, stony, and gorgonian corals and hydrocorals. To see more photos, check 'Want to know more?'

Morgan's million dollar mice

Ever feel like fishermen take an unfair rap for catching seabirds, and wonder what everyone else is doing? Then this story is for you! Gareth Morgan is known for his strong opinions on a variety of issues. Now, he's putting his money where his mouse—or rather, his mouth—is, to help get rid of mice from the Antipodes Islands, a southern seabird paradise.

The Antipodes Islands are 860 km southeast of Steward Island. The Islands are 2000 hectares in area, and home to all sorts of unique wildlife, including plants, parakeets and petrels. The remoteness of the islands means there are few visitors. Similarly, there are very few non-native species. Over time, only three non-native plants have colonised the Antipodes. However, the island has also become home to mice, and lots of them—scientists estimate there are 60 to 150 mice per hectare.

So which seabirds live on the Antipodes? Not surprisingly, the Antipodean albatross, a year-round resident. Amongst the largest of our albatross, this bird lays eggs starting in January and cares for its chicks all year, until they finally leave the nest and head out to sea from December, to March the following year. The light-mantled sooty albatross also calls the Antipodes home. This albatross has slightly lighter parenting duties that last about 10 months from egg-laying until the grown juveniles head out to sea.



The grey petrel: one of the many seabirds that breeds on the Antipodes Islands. Photo: J.J. Harrison, Creative Commons License 3.0

Nine species of burrow-nesting petrels raise their young on the Antipodes, from tiny storm petrels to the much larger white-chinned petrels. Grey petrels are so keen to be at the Antipodes that they breed in winter. Brrr!

All this wildlife means that the Department of Conservation is very keen to get rid of mice from the Antipodes. However, at a cost of about \$5 per mouse, it's going to be expensive. So how is Mr Morgan involved? Gareth and Jo Morgan have kicked off the Million Dollar Mouse campaign. They will match every dollar contributed by public donations to help fund the Antipodes mouse eradication programme. So far, the kitty contains \$933,478. That's very close to the \$1 million target—watch out mice!

Of course, as well as funding, a project like the mouse eradication requires a massive amount of planning and research. This has included checking that native birds won't eat pellets that will contain the poison meant for mice. The good news is that while mice seem to love the pellets, there was no sign that birds ate them. Birds were concluded to be at low risk of taking poison.

Now, planning for the field component of the eradication is underway in earnest. The war on mice is set to kick off on the Antipodes in winter 2015. To keep up with the Million Dollar Mouse campaign, check the link in 'Want to know more?.'

Mitigation matters on the high seas

Tuna fisheries are big business and account for around 20% of the global value of all wild-capture fisheries. Unfortunately, tuna fisheries also catch a range of non-target species such as seabirds, turtles and sharks. The United Nations Global Environment Facility is supporting improved management of high seas tuna fisheries with a USD\$27 million project. What will this project achieve and who is involved?

The project has three main goals: to improve fisheries management and sustainability, to reduce illegal, unreported and unregulated fishing, and to mitigate adverse impacts of tuna fisheries on biodiversity. The target fisheries are those taking tuna on the high seas, i.e., fishing in areas beyond all nations' exclusive economic zones. The list of project participants is long and distinguished. For example, it includes the five Regional Fisheries Management Organisations responsible for tuna, the Agreement on the Conservation of Albatrosses and Petrels, Birdlife International, the Marine Stewardship Council, the International Seafood Sustainability Foundation, and private sector groups.

So what will the project actually do? With a budget like that, there are a lot of options! In the near future, work on seabirds and turtles will focus on improving bycatch reduction measures used by the tuna fishing fleets operated by Japan, Taiwan, China and South Korea. Together, these fleets make up more than 90% of high seas tuna fishing effort. Therefore, improving their practices will mean significant bycatch reductions. Initially, these fleets will be targeted from Cape Town, a port of call for vessels heading to the Indian and Atlantic Ocean fishing grounds. Longer term, work to improve bycatch reduction practices may extend into the Pacific Ocean.

While the Indian and Atlantic Oceans are a long way from New Zealand, marine turtles as well as many of the seabirds that occur here are long-distance travellers. We know that 'our' birds encounter high seas fleets outside New Zealand waters. With better mitigation in place across tuna fishing vessels, more of our birds should return home safely after their travels.



Salvin's albatross, one of the New Zealand seabirds that will benefit from reducing seabird bycatch in tuna fisheries. Photo: © M. P. Pierre

WANT TO KNOW MORE?

- *Headline:* Keep up with the Chatham Island albatross translocation project at www.facebook.com/chathamtaikoitrust
- *What the FAQ?:* To really know your corals, check out this photo guide: www.doc.govt.nz/documents/conservation/marine-and-coastal/fishing/coral-id-guide-updated.pdf
- *World watch:* To find out more about the high seas tuna project, see: www.fao.org/news/story/en/item/204028/icode/
- *Word on the street:* Follow the progress of the Million Dollar Mouse campaign at www.ourfarsouth.org/milliondollarmouse/