

BYCATCH BYLINES

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HEADLINE

Bottom longline bycatch busters

Inshore bottom longline fishers have been in the spotlight a fair bit lately, including with the winners of the Seabird SMART awards (see last issue). Clearly, there's a lot going on to reduce the risk of seabird bycatch in these fisheries. So who's doing what to make a difference?

Seabird SMART award winners Zak Olsen and Adam Clow talk about some foundations of good practice—night-setting, using a tori line, and holding offal on board when gear is in the water. Line-weighting is another critical measure for bycatch reduction, and an integral part of bottom longline fishing anyway. It might sound too easy, but it has been proven repeatedly that those four measures will solve most seabird bycatch issues in bottom longline fisheries. So why do bird catches still happen? What else needs to be done?

In inshore bottom longline (referred to here as IBL) fisheries, there is a huge variety of fishing practices. Each person fishes their own way—at least a little differently from everyone else, even when targeting the same kind of fish. That means bird bycatch risks are also different between operations. The Department of Conservation and Ministry for Primary Industries want to know more about the variations in practice being used out there. They also want to know how those practices affect bird bycatch. So, over summer, Observers will be out amongst parts of the IBL fleet working with fishermen to learn their 'tricks of the trade' for reducing seabird catch. Areas of interest for Observers include:

- Documenting current practices and seabird interactions
- With fishermen, investigating the deployment of additional and already proven measures for reducing seabird catch
- Exploring new, additional measures for bycatch reduction

Anytime there is an Observer on a boat, things go a lot better when everyone has a bit of patience. In inshore fisheries, working close together in smaller spaces makes this even more important. For this project, cooperation is essential to get good results and the best value for money. Do you have ideas on what would work better for reducing seabird catches? Observers may be able to help you test these. Will others benefit from learning your approach? Most importantly, documenting current practice is a lesson in itself, which allows government to understand your operation better. This will lead to improved management approaches that are built better and with your needs in mind. In that way, the presence of Observers this summer should be a win-win for fishers and government. Thanks to those of you who are hosting Observers, facilitating their placements, and passing on your knowledge.



A young black petrel chick—what the petrel population needs more of. Of seabirds caught in IBL fisheries, this species is the most at risk of population decline. Photo: DOC

WHAT'S UP?

Helping Hutton's

Up to 100 Hutton's shearwater chicks are about to get new homes. These endangered seabirds breed in the mountains behind Kaikoura. There used to be 8 natural colonies, and now there are 2. Human help is changing this. Later this month, the chicks-on-the-move will be relocated from their original nests to new nests in a man-made colony on Kaikoura Peninsula. They will be fed sardine smoothies daily for 6 weeks until they leave the nest. Then, like many young New Zealanders, they'll head to Australia. When they're ready to breed themselves, the birds will come back to the Peninsula and make it their home. Fortunately these birds usually aren't interested in fishing boats. But, if you're out on the water, especially around Kaikoura, you might be lucky enough to see them.



Hutton's shearwater. Photo: DOC

WHAT THE FAQ?!

At loggerheads

Loggerhead turtles are found in New Zealand waters, usually where it's warmer. They sometimes come ashore here, especially if sick or injured. For longliners, this turtle provides a prime example of when to use dehooking gear.

- Loggerheads usually live more than 50 years.
- They are the largest of all marine turtles with hard shells. (The enormous leatherback has a soft shell.)
- Loggerheads are endangered, like all sea turtles.
- Threats include development on nesting beaches, and captures in longline and trawl gear.



The loggerhead turtle. Photo: TvR. (Creative Commons License: www.flickr.com/photos/timmee/328259969/sizes/m/in/photostream/.)

The weighting game

If you don't know him already, some of you will be meeting Dave Goad in the next few months. Amongst other things, Dave has been involved with fishing in two countries, observing and mitigation projects including line-weighting. He tells us what keeps him going in this line of work.

How did you get into fisheries work?

I'm from the UK originally, and studied oceanography and fisheries science over there. I went fishing out of Cornwall for a couple of years, before getting a job observing on small boats all around England. Then, I moved to NZ, and worked for MFish in Wellington as a Fisheries Observer Officer—I did everything related to Observer trips without actually going to sea myself.

How did you get involved with protected species issues in NZ?

After 18 months in the Wellington office, I had had enough of the daily 9–5 and went back to sea as an Observer. This involved collecting all sorts of information, including on protected species. For the last three years I have also been working on bycatch reduction in inshore fisheries—bottom longline fishing (including line-weighting) has been a particular focus. This work is great—I get to solve problems and think about issues with fishermen and others. It's been good to get more involved instead of just handing over a bunch of data forms at the end of each trip to sea.

What keeps you working in this industry?

I can always see the relevance of my work and feel that contributing to the sustainable use of fisheries resources is important. But what keeps me in the job is definitely the people. I'm lucky to meet a huge mixture of characters with some good stories. All in all, it's much more fun than working in the same office all day!

What do you see as the biggest challenges for industry over the next five years or so?

That's a tricky question. I think the biggest challenge will be bridging the gap between what's happening at sea and communicating this to managers, and ultimately the public. I would like to think that people buying fish will be making informed decisions on what they buy, partly based on its impact on the environment. Also, I want to see inshore fisheries up there as a responsible food source. For this to happen, all fishers will need to employ 'best practice' suited to their operation—and the data to prove this will have to be collected. This is definitely a challenge, but it's by no means insurmountable.

How do NZ fisheries compare to others you've seen in terms of protected species management?

NZ fisheries operate amongst many more protected species than what I saw in England. Having said that, here we are more aware of these interactions and mitigation to reduce them. I have seen a lot of progress since coming to NZ. We need to remember that being the 'seabird capital of the world' is a big responsibility!

Can you tell us about a project you particularly enjoyed working on recently?

I really enjoyed being involved with the development of a line-setting device, which will deploy bottom longlines at depth. There were some great days at sea solving a few operational problems. The device is now in the hands of people who will take the engineering to the next level!

And what spins your wheels beyond work?

My two young kids keep me on my toes doing stuff outside, in the garden or at the beach. That leaves a little bit of time for sailing, fishing, kite-surfing, tramping and trying to learn to surf.

Thanks Dave—we look forward to hearing the results of your latest work!



Dave keeping it real at sea.
Photo: Dave Goad

Learning to live with limits

Sometimes it's easy to feel like NZ is a long way away from the rest of the world. In the management of our fisheries, however, what happens here is often very similar to other countries. Last month, we saw that National Plans of Action were also in place to manage interactions between fisheries and seabirds far away from Godzone. This month, we learn about who else is used to living with bycatch limits.

The age-old debate on bycatch limits here involves squid and New Zealand sea lions in SQU6T. Internationally, however, a diversity of protected species is managed using such limits. For example, the short-tailed albatross is subject to a bycatch limit in Alaska's hook-and-line groundfish fishery—there, just four short-tailed albatross can be taken every two years. This limit is very low because the species has a tiny global population of just 2,200–2,500 birds. The Hawaiian shallow-set longline (swordfish) fishery provides another US example. In that fishery, marine turtle bycatch is limited to 16 leatherbacks and 17 loggerheads per year. Both those species are endangered. If either limit is reached, the fishery closes for the rest of that year.

Closer to home geographically, and in terms of the species involved, are the take limits set for the Australian sea lion. An overall annual limit of 15 animals applies in gill-net, hook and trap fisheries. Management is divided into zones, each with their own allocated catch limit contributing to that 15. When the take reaches the allocated maximum catch in each zone, or the overall limit, fisheries close.

So, while probably no one likes to live with limits, they are an integral part of fisheries management worldwide. They can be effective in addressing sustainability issues where technical mitigation measures are unavailable.



A New Zealand sea lion reminds another who's boss. Photo: Roger Montserrat Ribes. (Creative Commons License: www.flickr.com/photos/ruchy/4542386085/)

WANT TO KNOW MORE?

- **Headline:** For more information on what Observers are up to as part of DOC's targeted inshore bottom longline coverage this summer, contact Johanna Pierre or Kris Ramm: johanna@dragonfly.co.nz; kramm@doc.govt.nz
- **What's up?:** Read more about the Hutton's shearwater at: www.huttonsshearwater.org.nz
- **Who's who:** To find more on Dave's past work on bottom longline fisheries, see his reports online at: www.doc.govt.nz/documents/conservation/marine-and-coastal/fishing/twg/mit2010-01-draft-report-to-twg.pdf
www.doc.govt.nz/documents/conservation/marine-and-coastal/fishing/twg/2009-01-mit-inshore-fisheries.pdf