

THE OCEAN GUARDIAN



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HEADLINE

The skinny on scampi

It's no secret that for the past few years, lots of people have been working really hard to bring seabird bycatch levels down in trawl fisheries. For scampi, some good initiatives have been underway, for example getting batch discharge systems set up for discards and offal. However, seabird bycatch rates are still higher than the government agencies would like. This month we ask what's the skinny on scampi?

In March, a workshop convened to look more closely at the issue of seabird bycatch in scampi gear. Participants included fleet management, skippers, current and ex-MFish Observers, and representatives from DOC, MFish (the new Ministry for Primary Industries), Dragonfly Ltd and Clement and Associates (C&A). The group's mission was to figure out what scampi operations could do to reduce seabird bycatch.

While there are important information gaps, we know that seabird bycatch is a year-round issue in all areas for the scampi fishery. Further, current seabird bycatch rates are higher than in the hoki fishery, but lower than in the squid fishery. Albatrosses, petrels and shearwaters are all being caught, with some repeat offenders. White-capped albatross, Salvin's albatross, white-chinned petrels and sooty shearwaters repeatedly pop up bycaught in this fishery. Both warp strikes and net captures have been reported for albatrosses and petrels/shearwaters. So, what to do?

Improvements in practice that should help include careful use of batch discharging. With the fundamentals of good practice already in place, particular effort to avoid discharging on every shot and haul will reduce risks overall. The jury was out on tori lines, but some design

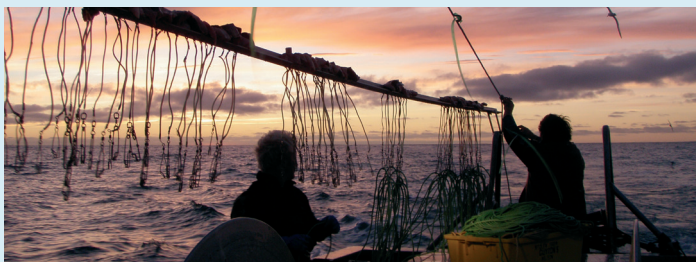
tweaks could improve their performance. Most discussion focussed on trawling's as yet unsolved seabird issue...net captures. Good ideas emerged including new techniques to try at sea, and this story is to be continued. Over the next few months, Dragonfly and C&A will be working more with those involved in the fishery. We'll keep you posted on what they all achieve.



White-capped albatrosses zero in on a scampi haul. Photo: Department of Conservation (DOC)/Ministry of Primary Industries (MPI).

YOUR VOICE

What do you think?



Inshore longline crew at work. Photo: DOC/MPI.

- Why only protected species? We've been asked why the Guardian only deals with protected species, when there are heaps of other big picture fisheries issues. The Guardian is funded through the Marine Conservation Services team (DOC), who work on protected species issues in commercial fisheries. (Their website is at: <http://doc.govt.nz/mcs>). That's why, but topics could expand with the agreement of others (e.g. MPI). We'll pass this on, thanks.
- Thanks to everyone who completed the Guardian's survey asking 'What do you think?'. Your feedback is much appreciated.

WHAT'S UP?

A chance to make things better

Commercial fisheries are operations of continuous improvement. That's not cheesy management-speak – we're talking bang for buck and efficiency that makes everyone's lives easier. John Cleal (Clement and Associates) is leading a project looking to improve seabird mitigation devices in trawl fisheries. The legal spec's for 'seabird scaring devices' to be deployed on trawlers ≥ 28 m have been in place a few years now. Some good lessons have been learned about how to make decent devices. There are also some niggles that could be solved. John wants to hear from you – what bugs you about tori lines? How can devices be made to work better? What construction materials are cheap and long-lasting? Contact John at: john.fvms@xtra.co.nz



Trawler tori line. Photo: DOC/MPI.

Risky business: the nous behind the numbers

This month, we talk to Martin Cryer and Ben Sharp about some of their work at the Ministry for Primary Industries. MPI commissioned a comprehensive scientific assessment of the risks for seabirds posed by fishing. MPI's fisheries management team is now incorporating the results into its work, for example for reviewing a National Plan of Action for Seabirds. Martin and Ben explain.

What was the goal of the seabird risk assessment project?

We wanted to assess risks to seabirds across New Zealand fisheries to understand what risks we need to manage or investigate further. The method used helps us get a better picture even when the data is relatively poor. That's why risk assessment is hard...it's what you do when you need answers in order to make a decision, but you know you'll never have all the data you really want.

In spite of the uncertainty, we wanted a method that gave us risk scores that are statistically rigorous and meaningful numbers rather than just ranks (like high, medium, low), and where the calculation of those scores is transparent, logical and repeatable. We needed to define risk for any given seabird species, but then be able to break down that risk into fisheries or areas.

So, the risk assessment can be used to see if there's a problem for a given species but, just as important, if there is a problem, it provides a way to drill down and figure out exactly where the problem is coming from. Drilling down to the real issues and the causes of risks gives MPI and industry a strong basis for thinking about ways to mitigate impacts of fishing on seabirds. After all, solutions need to be targeted at the real problem if they are going to be effective.

So what do you actually mean by 'risk'?

Basically, we mean the chance that we're not meeting our objectives. In this instance, high risk might mean that fisheries impacts on a seabird species are too high, may be stopping recovery of a threatened species, or may even be causing a population decline. Risk also includes situations or species where we don't really know the effect fishing is having. Either way, we have a problem to sort out.



The black petrel: assessed as at high risk. Photo: DOC.

How will the risk assessment be used?

The risk assessment gives us a basis for considering a whole lot of science and management choices. Once we know the level of risk in different fisheries or different locations, we can work on understanding and addressing those risks. The National Plan of Action that MPI and DOC are working on provides the framework for this. But, the detailed understanding of the risks gives us and the industry a starting point to work together and find practical solutions, such as increasing observer coverage to estimate capture rates better or developing and testing bycatch reduction measures.

We've heard that the black petrel is at high risk. What does this mean?

This means we are pretty sure that, across all New Zealand fisheries, too many black petrels are dying for this species to achieve a high population level.

But what if some fisheries only catch a few birds?

Thanks Martin and Ben - We'll have to get back to that next issue.

To be continued...

Who else is using risk assessments?

In recent years, there's been a lot of talk about risk assessments in fisheries management. Is this just another fad? We take a look at what's happening worldwide and in our own backyard.

The concepts behind risk assessment have been around for a long time. For example, weather forecasts reflect the risk of rain, and financial experts deal in the risk of economic downturn. Risk assessments can also be applied to any aspect of fisheries management, such as target species stock status, compliance costs of illegal fishing activities, and our focus: the sustainability of protected species captures.

As Martin and Ben describe (see Who's who?), risk assessments provide a method to support decision-making, particularly in the absence of information. In very general terms, risk assessments look at sources of risk, assess the consequences of each source and identify the likelihood of a particular consequence. The simplest, or 'Level 1', risk assessments deal in qualitative information only. These rely largely on expert opinion, and might end up with a ranked output describing 'high, medium or low risk' of some outcome. Levels 2 and 3 are quantitative, with Level 3 using the most detailed information.

Risk assessments are often used internationally for fisheries evaluation and management. In the Antarctic, CCAMLR was an early starter assessing the risk of seabird captures in its statistical (management) areas. The Marine Stewardship Council uses risk assessment to evaluate fisheries for certification in information-poor situations. Regional Fisheries Management Organisations use risk assessments widely. For example, the International Commission for the Conservation of Atlantic Tunas has considered a risk assessment for sharks, and the Western and Central Pacific Fisheries Commission had an ecological risk assessment completed for species caught in its Convention Area.

In New Zealand, seabird risk assessments are the most developed, with Level 1 and 2 assessments completed. The Level 2 assessment is in use (see Who's who?), and is also being improved with world-leading quantitative work (more on that next issue). Last year, an ecological risk assessment was completed for the hoki fishery. And, MPI is planning ecological risk assessments for Tier 1 target species (e.g. oreo, squid).

So, risk assessments are becoming a very common part of fisheries management. Both in New Zealand, and in fisheries around the world, we can expect to see them used more and more in the future.

WHAT THE FAQ?!

Fur seal facts

Did you know...?

- Adult male New Zealand fur seals can weigh up to 150 kg.
- The New Zealand fur seal dives deeper and longer than any other fur seal – deeper than 230 m, and for up to 11 minutes.
- Females can delay egg implantation for 3 months after mating and then are pregnant for another 9 months.



Juvenile New Zealand fur seal. Photo: www.ryanphotographic.com

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