

BYCATCH BYLINES



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HEADLINE

Managing our monsters

Sharks have had a bad rap in the past as monsters of the ocean's depths, but they can be vulnerable to over harvesting and other human threats. Earlier this year, the Ministry for Primary Industries released the second National Plan of Action-Sharks to document New Zealand's approach to the next 5 years of shark conservation and management. But with the QMS and protected species legislation already in place, why do we need an NPOA?

The New Zealand NPOA-Sharks originates from the United Nations Food and Agriculture Organisation's International Plan of Action-Sharks (IPOA). The objective of the IPOA is 'to ensure the conservation and management of sharks and their long-term sustainable use'. New Zealand is a nation with significant shark catches. As such, we also have a responsibility to act within the IPOA. Our first NPOA-Sharks was completed in 2008. This second version also has a 5 year term. The difference between the NPOA and existing legislation is that the NPOA talks about what we specifically expect to do to manage sharks effectively over the next 5 years.

The NPOA-Sharks covers all sharks, rays, skates, and chimaeras – in fact, all members of the class of fish identified as 'Chondrichthyes'. This group of fish is set apart by their skeletons, which are made of cartilage not bone - like the stuff that makes up your nose. Currently, seven species of sharks and rays are protected in New Zealand waters. These are the white pointer, basking shark, deepwater nurse shark, oceanic whitetip shark, whale shark, manta ray and the spintail devilray. The NPOA-Sharks takes a risk-based approach to shark management. If this

sounds familiar, the NPOA-Seabirds 2013 was also structured around risk. For protected shark species, particularly relevant components of the NPOA-Sharks include the identification of risks to populations – that is, both bycatch risks and non-fishing threats. Identifying habitats that are critical for shark populations and ensuring these are conserved will also be important.

For animals with such a strong reputation, our knowledge of sharks and their habits is poor overall. Therefore, part of the NPOA-Sharks will focus on ensuring that the information we have is adequate to achieve management goals. With less guesswork and more facts, the management of our monsters should be better than ever.



The spintail devilray – one of the protected species included in the National Plan of Action-Sharks. Photo: © Scott Tindale

YOUR VOICE

It's time to get Smart

The 2014 International Smart Gear Competition is open. Your great idea for reducing bycatch could help you claim a share of US\$65,000 in prizes.

Since it started in 2004, novel and practical ideas for bycatch reduction methods have emerged from the International Smart Gear Competition. The competition opens about every 2 years. This year, entrants have until 31 August to submit their smart ideas for consideration by the international panel of judges.

So what does it take to win? The rules are online (see 'Want to know more?') but in short, judges are looking for ideas that:

- are effective in reducing bycatch
- are innovative
- are practical
- are cost-effective
- maintain or increase target catch, and
- have high conservation impact (e.g. work on threatened species).

Get in it to win it!

Make those smart ideas work for you and bycatch reduction. Image: <https://worldwildlife.org/initiatives/international-smart-gear-competition>



WHAT THE FAQ?!

Awesome orca

Orca or killer whales are commonly seen around New Zealand coasts. They are legally protected like all marine mammals in New Zealand waters, and they're actually a dolphin! Other than a killer reputation, what's special about orca?

- Are they really killers? Orca feed on a range of animals including seals, whales, sharks, rays and other fish, squid and even seabirds. Orca in the wild are never known to have killed a person. Orcas in captivity have injured humans – usually their trainers.
- How long do they live? Males live at most 50–60 years, and females up to 80–90 years.



An orca and calf near Akaroa Heads, Canterbury. Photo: © M.P. Pierre

- How big? Male orca bodyweight exceeds 6 tonnes and their dorsal fins can be up to ~2 m tall. Females tip the scales at 3–4 tonnes.
- What if I see an orca? Your sighting is valuable. Record it online: see 'Want to know more?'.

Simon says

For many in the industry here, the name Simon Boag will be well known. For Simon, New Zealand was home-base for 14 years from the mid-1990s while he worked for Sealord. His role included managing a diversity of vessels before he moved into the business improvement side of the industry. Now based at Lakes Entrance in Victoria, Simon's work includes being CEO of the Australian South East Trawl Fishing Industry Association (SETFIA). We find out more about what Simon's up to with SETFIA, and his thoughts on environmental stewardship.

So Simon, who is SETFIA and what does the group do?

As CEO of SETFIA, I work for a group of about 30 entities including fishermen, quota owners, processors and fish markets. SETFIA's plan is to maximise membership and funding, use both to change the culture of this industry, use culture change to do things better on the water and ultimately to be noticed for that. Current projects include fishery surveys, reducing seal, shark and seabird interactions, reporting and avoidance of depleted stocks. We communicate the findings of these projects to our stakeholders in the hope that it results in sensible management arrangements at a manageable cost.

What are your views on the role of fishermen in environmental stewardship?

Like in New Zealand, Australian communities will not accept poor environmental performance. Therefore, there will always be Government agencies working on fisheries and environment management. However, in SETFIA's view, the fishing industry is far better placed, and can achieve more, faster and cheaper, than Government



Simon with one of his favourite fish. Photo courtesy S. Boag

can toward reducing industry's impacts on the environment. Why let someone else manage the asset that is your superannuation? As a general rule, Government is very supportive of self-management.

Other than seabirds (see 'World watch'), what else is hot for SETFIA in the protected species area at the moment?

We are running a project using a shortened trawl net with the hypothesis that if seals enter the shorter net they can orientate themselves more easily and swim back out. This project is almost finished and was supported by ExxonMobil. We are also launching a project that aims to catch deepwater prawns off Sydney without catching gulper sharks. A gulper exclusion device (GED) will be fitted to a prawn net. The GED is a smaller version of the sea lion exclusion devices used New Zealand.

What are some key challenges for SETFIA in the next 5 years?

The discarding of non-commercial and undersize species has gained momentum in the northern hemisphere and is likely to present a challenge in the future.

Compared to the New Zealand QMS, the Australian system is more heavily weighted on science. For example, in our \$50m trawl fishery more than 30 assessments are run annually. The cost of this science can be prohibitive in the relatively low-volume Australian fisheries. In some ways, the more science that is done, the more uncertainty there is for industry's detractors to latch onto.

Increasingly, supermarkets are moving toward seafood sustainability benchmarks that use brands involving strong conservation equity, some of which are involuntary for industry. For example, Coles have stated that by 2015, they will not sell fish that is not Marine Stewardship Council-certified or WWF-endorsed. SETFIA is working through this loaded and complicated area.

Thanks Simon – we look forward to hearing more about the outcomes of your work.

Government support for SETFIA seabirds

Australia's South East Trawl Fishing Industry Association (SETFIA) has received AUD\$360,000 of Commonwealth Government funding to investigate measures for reducing seabird bycatch in trawl fisheries. The focus of the project will be on reducing seabird strikes on trawl warps.

The money was awarded to SETFIA from Australia's Caring for Country programme. This is a government funding initiative that supports regional natural resource management groups in improving the environmental outcomes of management practices, including for biodiversity.

Vessel operators amongst the group SETFIA represents are not new to seabird bycatch reduction. All trawlers operating in the South East Australia and Great Australian Bight areas have Seabird Management Plans that include bycatch reduction strategies such as offal management and deploying warp strike mitigation devices. The warp deflector is a popular choice, comprising a 'pinkie' windy buoy attached to the warp so it rides along close to the warp/water interface. However, these devices can be difficult to use given the need to attach and retrieve them every tow. They also get tangled.

Part of the new funding will be used to investigate alternative approaches to trawl warp strike mitigation. Approaches to be tested include a water sprayer that sends a curtain of water astern over the warp area (see the YouTube link in 'Want to know more?') and one other device. The second device will be chosen by a panel of experts from fishermen's suggestions. Devices will be tested through data collection conducted by observers at sea.

The project term is 2 years. During that time, the SETFIA group will also work with the Great Australian Bight Fishing Industry Association to ensure work covers all of south-eastern Australia.



White-capped albatross (and two flying Buller's albatross) around a trawl warp in a New Zealand fishery – note the partially submerged albatross at the base of the trawl warp. Photo: DOC/MPi

WANT TO KNOW MORE?

- *Headline:* Catch up with the National Plan of Action-Sharks 2013 at <http://tinyurl.com/pmumeeet>
- *Your voice:* Full details on the Smart Gear competition are available at <http://tinyurl.com/npg4cyr>
- *What the FAQ?:* Report your orca sightings online. Go to <http://tinyurl.com/pjsatcy>
- *World Watch:* Check out the warp water sprayer at <http://tinyurl.com/n9rx7py>

FEEDBACK

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