
Session 5 : THE EIGHT LAKES OF TARAWERA

SESSION CHAIR – Don Atkinson, LakesWater Quality Society

PREDATOR FREE NEW ZEALAND BY 2050 – BENEFITS FOR THE LAKES

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TRANSCRIPT

Morena. Tena koutou katoa
No reira tena koutou tena koutou tena koutou katoa

I am here today to speak to you about Predator Free 2050 and the benefits of this programme for the lakes. I am a new Deputy Director-General and only been in my role for 7 weeks and that is because the biodiversity business group that I now lead has only recently been formed. I am accountable for the delivery of the Department's science technical monitoring and reporting functions and this is the first time these functions have been brought into one business group within the department, which is enabling us to have a fantastic focus on our national biodiversity work.

I am delighted that my first opportunity to speak in this capacity is to this symposium, but there are a couple of things I should get off my chest to be really clear about before I start. The first is, I am from the South Island, and if I had to identify my mountain it would be Aoraki Mt Cook. I am used to man-made lakes that have pristine water, very little biodiversity around the edges and all the water runs out of them in straight lines, so fantastic lakes like Tarawera are something new to me, and a very different environment from where I am from.

The second thing I should admit is that I am not a scientist. Sadly, my background is as a lawyer. You need to know that, because as a lawyer I have the ability to sound compelling and convincing about almost anything without really knowing a lot about what I am talking about. So the science I am going to talk about today may not stand close scrutiny.

Included in my accountabilities is responsibility to coordinate the Department's response to the Predator Free 2050 initiative. That means for the work streams under our operational delivery arm, our partnerships group, and also under our communications team, I hold accountability to build the DOC component. This initiative is led across New Zealand. It is not an initiative led exclusively by the Department and I am charged with building the DOC component in association with the Predator Free 2050 Ltd company of

which the Government is a shareholder with the Predator Free Trust, the Bio Heritage National Science Challenge led by Andrea Byrom as Director, and then key stakeholders, obviously key among them Iwi and also the NEXT Foundation.

It is important that I share a little bit of the Predator Free context so that we all start on the same page. On 25 July 2016 the Government committed to the goal of New Zealand being predator free, meaning free of possums, rats and stoats by the year 2050. The aim of the Predator Free 2050 programme is to deliver huge benefits to our threatened native species and for the social and cultural links that we have with our environment.



Paul Callahan said of a predator free New Zealand, 'It's crazy and ambitious but it might be worth a shot'. He also said this could be our Apollo programme. This gave my Director-General the most fantastic elevator speech whenever he enters the Beehive. He can get into an elevator and say, 'This is our moon shot as New Zealanders'.

Predator Free 2050 struck a deep chord with the people of New Zealand, reflecting our attachment to our species and landscapes. I can give you one specific example. I was invited to the launch of Predator Free Miramar about three weeks ago. In just one suburb in Wellington, there were 600 people who turned up on a rainy, wet, windy Wellington Saturday morning during kids' sports. There were presentations, sausage sizzles and the local supermarket sponsored traps that were built on site and handed out for free to the community. There are now only three suburbs in Wellington that do not currently have an organised predatory free community in place.

Predator Free 2025 goals: measuring progress

- 1 Extra 1 million hectares of land controlled through PF2050 projects
- 2 Scientific breakthrough capable of eradicating one of these predators: possums, rats, stoats
- 3 Areas of more than 20,000 hectares protected without fences
- 4 Remove introduced predators from all offshore island nature reserves

The graphic includes a photograph of a stoat in a grassy field, with one stoat in the foreground holding a small bird in its mouth and another stoat visible in the background.

What are we all working towards, all these people turning up and grabbing traps? We have an initial framework as we start our work under the programme; that is the interim list of four 2025 goals. We want create an extra million hectares of land controlled through

Predator 2050 projects, in addition to the current baseline work that the Department does as well as the work of OSPRI and Regional Councils.

We are looking for a scientific breakthrough capable of eradicating one or more of possums, rats or stoats and this is why a link with the Bio Heritage National Science Challenge is so very important. We are also looking for areas of more than 20,000 hectares protected without fences. The maximum we currently have is around 3,000 hectares behind a fence, but the idea is that we remove the fences, eliminate and defend, and then scale up to 20,000 hectare blocks using natural and defensible boundaries. The fourth objective is removal of introduced predators from all offshore island nature reserves. There are about six left now that fit within that category, the biggest being the Auckland Islands in the sub-Antarctic.

DOC has appointed a range of nine Predator Free rangers and I mention that today because I want to ensure that when you have the opportunity to connect with a Predator Free ranger you might look at the work that is happening in your community and maybe, with other community members, get involved. There is one in each of our regions and their job is to help communities to scale up predator free activities and coordinate community effort.

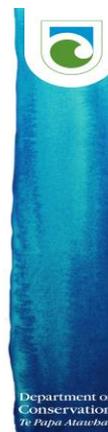
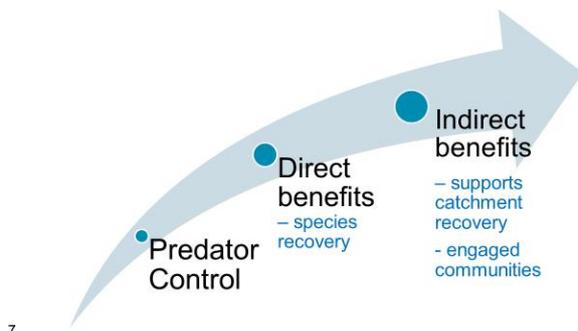
Predator Free Rangers

- Point of contact between DOC and community
- Advice on how to do predator control
- Access to DOC knowledge and rangers
- Support communities to be successful in becoming predator free



Daniel van der Lubbe is your local Predator Free Ranger. His contact details and profile are on the DOC website, so go for it. Think about what that predator free initiative might actually mean as far as the lakes are concerned.

Predator free – what about the lakes?



Striving for the predator free goal means not only more predator control, or perhaps the development of new tools to deal with predators, but it also means a better alignment of existing efforts and a chance to leverage off each other's work to maximise the collective impact of the predator control work that we do. This will result in both direct and indirect

benefits for our lakes and waterways.

The most obvious primary benefit is the recovery of bird life. We all know that predators are a major threat to native bird species, in forests and those that utilise lake ecosystems.

Australasian Bittern, Scoop, NZ Dab chick and Australasian Crested Grebes are species that are iconic components of our lake biodiversity and highly vulnerable to predation. They often nest on the edges of lakes and on adjoining wetlands and are susceptible to all the usual predators including, obviously, rats.

Recovery of birdlife



- Australasian Bittern
- Crakes
- NZ Dabchick
- Australasian Crested Grebe
- *and many other species*

Iconic components of lake biodiversity

8



Recovery of other fauna



- Kākahi/mussels
- Kōura/crayfish
- Freshwater fish

9

Recovery of other fauna is also a clear direct benefit. Predators are also a threat to some native species and large aquatic invertebrates such as crayfish and kakahi. We know that rats dive for freshwater mussels and there are various reports of fish predation including species like koaro. These freshwater species utilise habitats at the terrestrial aquatic interface and they are all very susceptible to ground-based trapping in that interface area.



There are also a number of indirect benefits and perhaps this is where the most exciting opportunity is. You will hear more from Jan Hania who is presenting on behalf of the NEXT Foundation this afternoon.

I want to talk about the indirect benefit in terms of catchment recovery as a whole. Control of possums, as well as having a benefit to threatened animals, will also assist the recovery of native vegetation. If combined with effective control of other species - deer, pigs, goats and wallabies - recovery of catchments will help to reduce sediment and nutrient inputs to waterways.

Indirect Benefits

- Engaged communities
- PF suburbs



11



Under the Predator Free banner, DOC is now moving to predator control at landscape scale and identifying defensible boundaries beyond islands within which large scale work can be undertaken.

Fresh water is a big driver in DOC's collaborative landscape approach and the way we look at whole of



10

Catchment recovery

- Indirect benefits – native vegetation recovery
- Combined with strategic approach to control other species

A principle that we have identified internally to inform our predator free landscape scale investment is alignment with other programmes of work. We have used the MFE vulnerable catchment work as a guide to inform that.

One great example at the top of the South Island we supported Ngāti Koata with technical skills and assistance to enable them to be successful in restoring the wetlands at Moawhitu on D'Urville Island. If we can put predator free effort into catchment scale work it will ultimately improve the river and lakes that the catchment feeds.

Another indirect benefit that we cannot lose sight of comes from harnessing the power of community. The predator free announcement has taken off at the community engagement level and the way they responded really struck me, as opposed to something like the flag debate which was hard to get momentum or engagement from New Zealanders. People have picked up the Predator Free effort in their communities and it has been hard for DOC to keep up. Perhaps that is not a bad thing. Communities show their desire for enhanced conservation outcomes at their place and that is what they value the most.

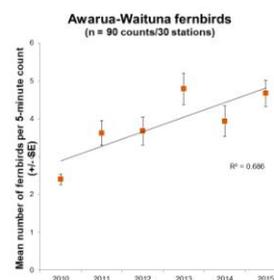
The opportunity exists to lever off this new and active community to bring them into projects supporting catchment recovery. What has occurred to us at DOC over the past few months is that rather than being a conservation initiative with community benefits, Predator Free is a community initiative which has conservation benefits.

Can we make a difference? This is where my science might get a bit dodgy so bear with me. We are undertaking large scale predator control in a number of wetland systems often adjacent to lakes. It is too soon to say how successful these have been at reversing declines in threatened water birds but at Awarua-Waituna in Southland, fernbird numbers have been steadily increasing since predator control commenced back in 2010.

Can we make a difference?



12



Freshwater Stretch Goal



- Increased freshwater restoration– from the mountains to the sea
- Vulnerable catchments - in partnership with iwi, councils and others
- Supporting local & national initiatives
- (e.g. Freshwater Improvement Fund projects)



I want to mention a connection to the Department's freshwater stretch goal which is that 50 freshwater ecosystems are restored from mountains to the sea. We have started to shift our attention to working on vulnerable catchments including partnering with Iwi and Councils. The Department has also been directly involved in supporting a number of freshwater improvement projects such as Lake Inoke, Waituna Lagoon, Waipoua River, and Moawhitu Lake on D'Urville Island.

13

Here is a slide both Steven Spielberg and Peter Jackson would be proud of. It is obviously a little bit of a montage of what we would hope to achieve in a wetland system.



I want to acknowledge a couple of things. The first is that we are often asked about cats and whether we can achieve this vision without focusing on cats. We know cats have an impact on native lake birds. We target, as a department, feral cats on conservation land, but responsible cat ownership is a community responsibility as much as it is a conservation effort. It will be interesting to see as communities invest in Predator Free 2050 how they define what responsible cat ownership means.

The Department is involved in the National Cat Management Strategy Group providing input and we are also engaged in various RMA proceedings for new subdivisions that neighbour onto high biodiversity value areas looking at cat free subdivisions. It will be interesting to see how this conversation evolves over the coming years.

The second thing I wish to acknowledge is that we are only focussing the Predator Free banner on stoats, rats and possums. We do have other invasive animals - pigs, deer, goats and obviously wallabies, and these species directly contribute to erosion and obviously lake water quality. All I can say about that is that the predator free initiative is not diverting away the Department's efforts to control those animals, so this is work that will be in addition. We are not diluting or losing our focus on those other invasive species.

The third thing to acknowledge is that to achieve the predator free vision we cannot just do it through community effort with the current tools. The next interesting conversation for New Zealanders to have will be about the influence of gene editing, understanding the difference between gene editing and genetic modification and we have had discussions previously as a country around that. How do we have an informed discussion about the role that gene editing might be able to play in terms of dealing with our predators?

Is New Zealand up for a situation where over the next two to three years we invest in gene mapping of the stoat so that when that technology arrives in a few years' time we can turn off a gene? We can produce Trojan females who only produce male stoats and gradually that species is removed from New Zealand. The Department is investing quite a bit in understanding how we might be able to inform a debate and build the social licence needed to get to that point, and as a country we make a decision about where we stand on such issues.

In conclusion, DOC is keen to maintain the momentum already building as a social movement under the Predator Free 2050 initiative. There is no doubt in my mind there is an opportunity to enhance a number of existing work programmes and move to that landscape level. It is in that area that we will get the most benefits to the lakes.

Kia ora - thank you very much.