PREDATOR FREE 2050

kia Uru ora, return to life

THE STORY SO FAR

Predator Free Russell. Image: Shelley Crawford

Achievements of the large landscape scale predator elimination projects supported by Predator Free 2050 Limited

Table of Contents

Towards a Predator Free Taranaki. Image: Stu Attwood

Foreword

As part of the Predator Free 2050 Goal, landscape scale projects were set up to provide a proof of concept for predominantly mainland predator elimination, without the use of predator exclusion fences. There are currently 18 projects around the country, varying in size, geography, governance and species targets. Some were established six years ago and others have started more recently, but collectively they are already significantly contributing the Predator Free 2050 Strategy interim goals.

The paper is a summary of high-level achievements and impacts made by landscape predator elimination projects co-funded by Predator Free 2050 Limited (PF2050 Limited), as of September 2024. It is not scientific in nature, but after six years of learning, it is an opportunity to reflect on success at this stage of the journey to 2050 and share what has been achieved so far in a relatively short time. These achievements are starting to provide confidence that Aotearoa New Zealand can be predator free by 2050.

Progress against the PF2050 Strategy interim goals

Goal: *Demonstrate that predator eradication can be achieved in areas of mainland New Zealand of at least 20,000 hectares without the use of fences.*

Progress towards this goal.

As of 30 September 2024, Predator Free 2050 Limited is supporting 18 landscape predator elimination projects. Based on the data provided by landscape projects, over half of these projects have eliminated one or more target species, over various sized landscapes, and are defending those areas from reinvasion of predators.

Predator elimination projects are reporting the area in 'defence phase' (where predators have been eliminated and the project is defending against reinvasion) now exceeds 114,000 hectares. While most of this area has been cleared in the last 12 months, some parts have been free of resident predators for over three years. This achievement suggests that, at these scales and in these settings, elimination is possible to achieve and defend where people live, work, and play, and without predator-proof fences.

Predator Free Wellington achieved a significant milestone in November 2023 with the elimination of rats (Norway and ship) and mustelids (stoat and weasel) from the Miramar peninsula. This achievement was not considered possible a few years ago and is the first time Aotearoa New Zealand has eliminated possums, rats, and mustelids from an unfenced urban area. Predator Free Wellington is now focussing on reducing the costs of predator elimination in urban environments, as it moves its operations west towards the city centre.

Image: PF Wellington

Goal: *Eradicate possums or mustelids from at least one New Zealand city by 2025*

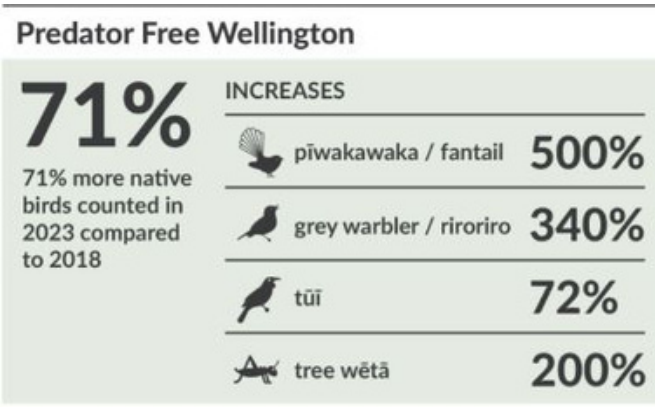
Progress towards this goal.

We have co- funded and supported substantial progress in two cities – Wellington and Dunedin.

Predator Free Wellington achieved elimination of weasels and stoats on the Miramar Peninsula (1000 hectares) in July 2020.

Predator Free Wellington achieved elimination of ship and Norway rats on the Miramar Peninsula in November 2023. It has developed a successful model to eliminate ship rats from urban areas and has successfully eliminated them from the entire Miramar Peninsula. Incursions of both rat species and a stoat have been successfully dealt with as a biosecurity response by the project and community.

The project continues to progress through Phase 2. The first operational goal was to install over 15,000 traps and bait stations in Roseneath, Hataitai, Kilbirnie, Island Bay and Lyall Bay. Over 9,590 individual landowner permissions have been secured to date (95% of the total needed). Approximately 270 ha of Phase 2 are now in the “Biosecurity Phase”.



Goal: *Have effective tools and knowledge available to achieve predator eradication on farmland by 2025*

Progress towards this goal.

Seventeen new or improved tools to help achieve predator eradication on farmland are already in operational use. Another 14 tools (including the rat-specific toxin Norbormide) and several best practice guides, developed with landscape projects, are due to be available by the end of 2025.

Tools for all target species are being produced, and all can be used in farmland. Landscape projects already starting to demonstrate the tools effectiveness on farmland.

Goal: *One million more hectares of mainland New Zealand where predators are suppressed by 2025*

Progress towards this goal.

The landscape projects funded and supported by PF2050 Limited are currently working to eliminate possums, rats and/or mustelids. Many of the projects also have areas of suppression, that function as a buffer, which will in time become eliminated areas. The total area of suppression and elimination that the projects are working on is currently more than 640,000 hectares. Therefore, these projects alone are already providing over 50% of this goal.

Te Kinga Dilys the Dog. Image: Nathan McNally

Goal: *Whānau, hapū and iwi will have identified sites of importance for predator eradication and at least five projects led by whānau, hapū and iwi will be underway across the country.*

Progress towards this goal.

Three of our projects are currently iwi led: Korehāhā Whakahau led by Ngāti Awa in Whakātane, Poipoia Te Kākano led by Te Uri o Hau in Kaipara, and Tū Mai Taonga (Aotea Great Barrier) led by Ngāti Rehua Ngātiwai ki Aotea Trust on Aotea/Great Barrier Island.

All the projects work alongside mana whenua and support them as kaitiaki. This is helping in revitalisation of cultural practice and pride associated with place. Most projects involve mana whenua representation at the governance, operational and field delivery levels of the operations. Mana whenua are increasing their role in leading discussions and about the reintroduction of taonga species in particular.

Other significant achievements

People: Supporting Communities

Landscape projects, PF2050 Limited, the PFNZ Trust, DOC, Zero Invasive Predators Limited (ZIP), regional government and OSPRI have all collaborated with each other – which has been critical in building operational effectiveness and increasing community engagement and awareness.

Landscape projects have provided people with a pathway to connect with nature, and supported them to take action to help nature. This has seen a move from passive to active guardianship. For example, over 250 landowners on Waiheke host a stoat trap, ensuring every stoat home range is covered, and over 95% of residents have given permission for rat eradication devices to be on their property. Within Predator Free Dunedin, on the Otago Peninsula, approximately 500 properties now have possum control devices on their land. Community engagement is also high in Dunedin City, with around 600 people hosting a trap on their land.

Image: PF Wellington

Increased and sustained community engagement and public awareness has provided strong social licence for projects (communities allowing the projects to do the work). Landowner permission rates are high in all projects, with people at place understanding operational risks and, in some instances, tolerating methodologies which would not be acceptable for continued suppression.

New audiences have joined the predator free journey that the conservation sector has typically been unable to reach. Landscape projects have engaged non-traditional conservation audiences and grown a new, more diverse community of guardians, including youth.

With the Miramar multi species elimination complete, and the roll out of Phase 2 (Owhiro Bay to the CBD) underway, Predator Free Wellington is delivering direct ecological, social, economic and health and well-being outcomes to well over 100,000 Wellingtonians.

A rat free Miramar has enabled the start of a rat-free generation – a new generation of children is now growing up without rats in their backyard.

Many of the landscape projects have created successful community reporting systems, which are helping the projects to not only eliminate their target species, but also engage the community.

People: Capability and Capacity Building

Increased capability through training and skills development

Landscape projects have created over 630 jobs with Provincial Growth Fund and Jobs for Nature funding, and had the active assistance of volunteers. The capability and capacity built up through these projects will benefit conservation and other sectors in Aotearoa New Zealand for generations to come.

The complexity of these projects has built a workforce of project and operations managers, communications managers, data managers, technical advisors, field technicians and financial managers, all able to tackle uncertain and complex situations. Landscape projects have become providers of best practice advice to wider community conservation projects and to government agency staff.

The Projects have upskilled volunteers alongside their personnel to ensure each projects' specific needs are met. For example, Predator Free Wellington have: trained 200 volunteers specifically to maintain the 1,000-device, 7 km-long defence line of Phase 2 and have seen 13 trained staff move to other employers to advance their careers. They have mobilised a network of over 10,000 backyard trappers across every suburb of Wellington who are providing sustained control over 8,000 ha for free enabled mana whenua to lead the elimination of Taputeranga Island (part of Phase 2) through technical advice, planning and tool supply.

Predator Free Dunedin have averaged 25,000 hours of volunteer time per annum, since 2018. This equates to 13 FTE of paid workers. Not only does this reflect the scale of voluntary labour, but more importantly, reflects the absolute commitment from residents. Created and supported a network of over 1,000 backyard trappers from the Otago Peninsula, across Dunedin City, to the Northern outskirts of Dunedin.

Drone Survey PF Dunedin. Image: Brett Butland

Kingfisher on Waiheki Island. Image: Peter Rees

Planet

Our projects are operating in some places with significant biodiversity values, which have received no or minimal predator control in the past. These areas now have a chance for optimal biodiversity recovery.

Biodiversity gains as a direct result of our projects include (but are not limited to):

- Wellington: Miramar Peninsula five-minute bird count monitoring by external contractors on a standardised grid has shown a 71% increase in the abundance of native birds, with indicator species such as riroriro and piwakawaka increasing by 375% and 550% respectively over 5 years. In addition, kākā, kākāriki and the Wellington Green Gecko have been observed on Miramar for the first time in many years.
- Capital kiwi: are seeing noticeably more kākā, kererū, tūī, karearea, kiwi, barking gecko, dotterels, stilts, little blue penguins.
- Waiheke: In 2023, there were 52% more endemic and native birds (combined) counted than in 2020. Two great examples are: over 300% more kākā, 180% more piwakawaka.
- Dunedin: more tūī, rifleman/titipounamu and bellbird/korimako have been counted since the project started. Kākā have been sighted in Leith Valley, Woodhaugh, and Northeast Valley. There is evidence of rapid regeneration of forest in the absence of possums with increased species diversity.
- Another benefit of these projects is that non target predator and pest species have been controlled to low densities or eliminated by landscape projects while they concurrently eliminate target species, including hedgehogs, feral cats, rabbits and hares.

Pūtea

Landscape projects have attracted new investment of almost $142M in non-government funding from the philanthropic, corporate, and volunteer sectors, because of PF2050 Limited's seed funding.

When it comes to activity around funding landscape projects are:

- Enjoying huge publicity, which has raised the profile of the PF2050 Mission. For example, Capital Kiwi's return of kiwi to the backyard of our capital city continues to attract global attention.
- Making investments into local economies (in addition to employment). For example, Te Korowai o Waiheke have invested $5.14M in the Waiheke economy to date through procurement of goods and services.
- Showing that maintaining predator elimination gains can be cost-effective by adopting self-sufficient tools and new technologies. For example, Predator Free Dunedin have installed over 800 AT220 automatic resetting traps, which have caught over 14,000 possums since 2022, without the need for staff to manually reset traps in remote parts of the project area.
- Reducing elimination costs per hectare. Predator Free Wellington have already improved by 90%, through the development and deployment of new and refined methodologies developed by the project.
- Reporting farmers in their area are seeing increased agricultural and horticultural productivity. For example, without loss to possum browse, farmers have more fruit and produce to sell.
- Providing the opportunity to develop predator elimination operational methodologies to suit specific locations and contexts. This will be hugely beneficial and will create efficiencies for new projects wanting to set themselves up, who have similar contexts and geographies to existing projects. The new projects can model their own operational methodologies on similar projects who have gone before them.

Conclusion

In summary, these landscape-scale elimination projects, after only six years are already achieving significant milestones for the three P's (People, Planet and Pūtea) and are starting to provide a proof of concept and pathway to predator freedom for Aotearoa New Zealand.

PF Dunedin Celium Hub.