



New Zealand
Biosecurity Institute

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Protect

inside



4



6



7



11



13



14



15



17

NZBI Contacts 2

EDITOR'S NOTE - Constancy and Continuity 3

FROM THE PRESIDENT - It's about generating and sharing great ideas 3

NZBI NEWS

Racing Australian speed boats, volcanoes, and lots of birdsong: Central North Island Branch NZBI 4

Epic views and pesky pines: Top of the South Branch Catch Up 6

Would you like some tennis with that training? 7

SECTOR NEWS

Biosecurity Awards now every two years 8

Where from here? Predator Free 2050 - the Strategy 8

Strong interest in tougher penalties: Amending the Biosecurity Act 9

Disestablishment of Predator Free 2050 Ltd 9

ANIMALS

World first: revival of the rat-specific toxin 10

A bit about rooks but mostly it was about learning and sharing: The Australasian Vertebrate Pest Conference 2024 11

Predator control highlights 12

PLANTS

A safe option for community groups: 13

Flowering cherry (*Prunus serrulate*) poison trial: 13

Let's Finish The Job – The Case For Urgent Investment For The Wilding Conifer Crisis 14

Drastic digger duty to deal with invasive weed 15

AT THE BORDER & RESPONSES

Cruise ships appear to be behaving 16

Caulerpa: New removal technology projects underway 17

FROM THE ARCHIVES

The conifers are spreading, so why isn't the money? 18

THE TAIL

Not your average smuggler. No reptile was harmed in this story 20



New Zealand
Biosecurity Institute

Working together to ensure New Zealand is protected from the adverse impacts of invasive species

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■ FROM THE EDITOR

Constancy and Continuity

The crisis, yep, crisis, of wilding conifers is an in-your-face touch-point when it comes to awareness of wider biosecurity matters. The unwanted trees are a very visual reminder to one-and-all about the importance of constant and continued control. In this issue Jo Ritchie appeals for help in a campaign and Sian Reynolds makes some suggestions, and gives some sound reasons for funding. In editing these items, I left out some of the disastrous effects of lack of action of wildings and other pests which are alluded to. I made the reasonable assumption **that Institute members have a better-than-most understanding of these consequences**, which is why we all do what we do. It's important to remember that members of the Institute come from all sectors including policy-makers. It's handy to have these perspectives touched on occasionally.

As always, interesting topics were discussed, and new ideas shared at the Canterbury-Westland, Central North Island and Top of the South recent gatherings show.

Juliet Brebners report on her attendance at the Australasian Vertebrate Pest Conference 2024 with the assistance of the NZBI shows the benefits of having a healthy awards scheme, and Greater Wellington's trial of a new method for controlling flowering cherry trees using a coun-ter-sink drill bit and herbicide gel, show how constant innovation is important.

Read and share.

CHRIS MACANN
EDITOR

■ FROM THE PRESIDENT

It's about generating and sharing great ideas

Kia ora koutou,

After a lot of thought, I've decided that I'm not going to run again as the NZBI president. Being the president has been a true honour, but I don't feel like I have enough time to commit to what the position and NZBI need. I won't be going away from the NZBI - Alice can finally step back from the past president role and I will fill that one to advise the NZBI Executive Committee. I will also carry-on my work as co-chair of the organising committee for NETS/Australasian Weeds Conference 2026 in Christchurch.

I will soon be passing on my role as mentoring coordinator too. I am particularly pleased to see how the mentoring programme has been enthusiastically supported by both mentors and mentees. The idea of a mentoring scheme originated at the branch level when early career members asked for career development and mentoring opportunities. **It is good to see that the NZBI branches are generating such good ideas and sharing them with members** through the Executive Committee, which in turn has developed them into well-supported practical programmes. This is a key reason the NZBI exists. If you are interested in being the next mentoring scheme coordinator, please get in touch!

Much of the time of the Executive Committee lately has been preparing for our NETS and our National AGM. We have made corrections to our new constitution based on your feedback from our last AGM and prepared our annual financial report. We also have been looking into low-cost options for file storage to ensure the NZBI continues to store its documents in an accessible way. I'd like to thank the Executive Committee members for all their hard work and dedication to the NBZI - it has been a great pleasure to work with such a terrific team during my time as President.

Finally, thank you to you all for being NZBI members - you are what make this Institute and thank you for your support and enthusiasm for biosecurity!

Ngā mihi nui,

ROWAN SPRAGUE
PRESIDENT



Racing Australian speed boats, volcanoes, and lots of birdsong: Central North Island Branch NZBI

In late March, the Central North Island Branch of NZBI held a face-to-face branch meeting in Taupo, in the Waikato Region. Twenty-four branch members attended this meeting, which started with a shared lunch and a chance to mix and mingle.

Gordon Tieman from Waikato Regional Council presented on the invasive Gold Clam response. He designed and built a mobile gas-powered hot water system to heat treat ballast tanks of boats to prevent the potential spread of this pest via this vector. **We learned about racing boats brought over from Australia to race on the Waikato River that still had water in their ballast tanks from overseas. These were promptly treated to avoid potential spread of new pests, while being careful not to damage these expensive carbon-fibre high tech boats.**

Alana Delich from Singers Environmental, presented on Tongariro National Park Butterworth management. We learned that this invasive plant likes the same habitats as native orchids, and due to its cunning reproductive structures called "gemmae", **hand pulling can actually make infestations worse.** This weed may have been inadvertently spread by native orchid-spotting field trips. The quote of the day was "**carnivorous plant and orchid enthusiasts are a bit weird!**"

Rachel Thompson from Kids Greening Taupō, presented on the Taupō tradescantia biocontrol school project. Kids Greening Taupo is an education and environmental programme that connects schools to an authentic purpose for teaching and learning. The programme is based upon the work of Greening Taupo, a community organisation which aims to increase the native flora and fauna of the town for the benefit of its people, businesses and natural environment.



Shirley Potter (Project Tongariro) explaining the history of Oruatua Recreation Reserve.

Kids Greening Taupo provides the link between local schools and Greening Taupō, whereby students will be actively involved with projects to increase biodiversity as well as solving environmental problems. Greening Taupō is an environmental education program that works with 45 schools and kindergarten to create wildlife corridors. They plant 30,000 native plants per year.

Peter Russell from Better Biosecurity Solutions, gave an update on the likely impacts on wildlife and waterfowl if the high pathogenic strain of avian influenza finds its way to New Zealand.

Organisational updates were provided by Waikato Regional Council, Bay of Plenty Regional Council, Hamilton City Council, Department of Conservation and Biosecurity Taranaki.

The following morning, we had field trips to these environmental sites of interest in the Taupō district:



Tauranga-Taupō River, which drains into Lake Taupō.



Rare geothermal vegetation at Craters of the Moon, part of the Taupō Volcanic Zone.



Nicki Hughes & Alana Delich leading a fieldtrip to Craters of the Moon geothermal site. Dead wilding pines can be seen in the background.

1. Oruatua Recreation Reserve Restoration

We met the amazing Shirely Potter, who has been waging war on pests and weeds at this site since 2007. **Through sheer force of will (and a good amount of baking!) they have managed to bring vibrancy and birdsong back to the Tauranga-Taupo area and are gleefully doing it with a small but determined group of local residents.** This site is on public conservation land, beside the Tauranga-Taupo River. It is near SH1 about 10 minutes' drive north of Turangi. Parts of the reserve were farmed in the late 1960's following the removal of kanuka for firewood. The farmer walked off in the early 1970's and the land was left for a raft of invasive weeds to run riot.

To date 30,000 native trees have been planted here and currently 2 hectares of weeds are cleared, and 6,000 trees planned annually by this community group. To initially prepare the land a local contractor drives his tractor mulcher through the weedy mess to create access to enable weed spraying from the back of a ute. Once the weeds are dead, they are mulched again by tractor. The native plants are purchased from the nearby Tongariro Prison nursery and planted at community planting days.

The reserve is being changed from a weed-infested area to a regenerating native forest amongst existing native trees. Biodiversity has received an enormous boost since predator trapping began in 2007. Kereru numbers have been steadily rising, popokatea (white heads) are now in seen flocks daily. Most exciting are the numbers of miromiro (tomtits), that arrived late 2019 and have since successfully bred. Birds can always be seen and heard in the reserve.



Learning about the native planting program and pest plant control.

2. Craters of the Moon Geothermal area

Craters of the Moon lies within the Taupo volcanic zone that extends from three active volcanoes, Ruapehu, Ngauruhoe, and Tongariro in the south to Whakaari/White Island in the Bay of Plenty in the east. Its landscape can be traced back over 700 years, and underground geothermal activity along the belt shows itself on the surface as fumaroles, geysers, mud pools and hot springs. Today the site is managed by the Craters of the Moon Trust who operate under a permit from the landowners, Ngāti Tūwharetoa.

Rare native plants that have evolved to cope with geothermal sites, such as prostrate kanuka and several rare fern species can be found here. We learned about these plants, pest threats, and ecological restoration activities happening here, including wilding pine control.

Many thanks to Waikato Regional Council for covering the catering and venue hire costs.

Looking to the future, our next in-person branch meeting will be held in the Western Bay of Plenty in spring 2024. Further details of this meeting will be sent out in due course. So please, if you can, make an effort to attend branch activities. Bring along new people if you feel that they could benefit from being a member of our branch. **There are many positive benefits of getting involved and interacting and sharing ideas with like-minded folks.**

Shane Hona

Chairperson,
Institute Central North Island Branch,
& Vice President, NZBI



Epic views and pesky pines: Top of the South Branch Catch Up

On 30 May the Top of the South Branch had one of our iconic get togethers. It was Marlborough's turn to host, and **we were treated to some epic views, pesky tussocks and informative restoration yarns**. The sunny Marlborough day started with a visit to the Wither Hills Farm Park, where Liam Falconer and Brent Holms explained the scale of the nasella tussock issue in Marlborough, complete with live plants to inspect.



Branch members inspecting nasella tussock plants at Wither Hills Farm Park. (Briar Cook).

We then went for a scenic 4WD up the Awatere Valley to Black Birch, for a look at an ongoing issue with contorta pines. The landscape up there is fairly pristine, only marred by the occasional contorta seedling. **Unlike radiata, contorta pines require herbicidal stump treatment to finish the job**, which was aptly demonstrated by Hayden Nott.



Liam Falconer outlines the contorta pine issue, and also explains that the hills in the background get inspected rigorously each year (on foot!) for several species of pest grasses. (Ken Wright).



Hayden Nott doing the business. (Briar Cook).



TOS Branch group photo on the Altmarloch Summit. (Rob Simons).

Our final stop was Grovetown Lagoon, for a late lunch and a talk by Marlborough District Councillor Ben Minehan. Ben discussed wetland restoration including willow control and the relationship between conservation and game bird hunting.



Ben Minehan explains the community restoration project at Grovetown Lagoon. (Rob Simons).

The branch AGM was held in usual succinct fashion, and we welcomed a new Branch Chair, Rob Simons. Rob is excited to take on the role and keen to keep taking the branch forward, ably assisted by Branch Secretary Brent Holms. We are all looking forward to our next branch catch-up in spring, and continuing to build relationships across biosecurity organisations in the top of the south.

Briar Cook.

WOULD YOU LIKE SOME TENNIS WITH THAT TRAINING?



CANTERBURYI-WESTLAND BRANCH'S MINI-NETS

Around 105 people attended the Canterbury/Westland Branch's mini-NETS on 7th March 2025 at the Coldstream Tennis Club in Rangiora.

Among the always-interesting items on the programme were discussions and presentations on:

- Kaupapa Māori seed banking
- The explosive issue of willows
- Field trials of readymade feral cat bait
- Thermal imaging to determine flight paths in nocturnal shearwaters
- AI cameras and High Interaction Rate Traps
- Harnessing nature's tiny warriors to combat bacterial threats (phage biocontrol)

Brad Chandler reported that the calibre of speakers was very high and there was good engagement from all the attendees.

"We had a great turnout, and a massive thank you to Rich Langley, Laurence Smith and of course Paige Lawson who I thought really did do the lioness's share of the organising, and thanks to all the speakers as well - such a diverse and interesting line-up.

There was time for a spot of tennis and refreshments afterwards.

NETWORKING AND VOLUNTEERING

The Branch held its Annual General meeting, chiefly on-line, on 19 June 2025. The branch is keen to work on more networking events and volunteer days and to involve members from further afield than Christchurch. The branch includes members from South Canterbury and the West Coast. Brad Chandler thanked one-and-all for being helpful and welcoming during his first year as chair.



Biosecurity Awards now every two years

The New Zealand Biosecurity Awards are now a biennial event. Biosecurity New Zealand will host the next Awards in 2026.

The Awards, which were first presented in 2019, celebrate achievements across the biosecurity system, showcasing the positive stories, the people, and organisations behind them.

Where from here? Predator Free 2050 - the Strategy

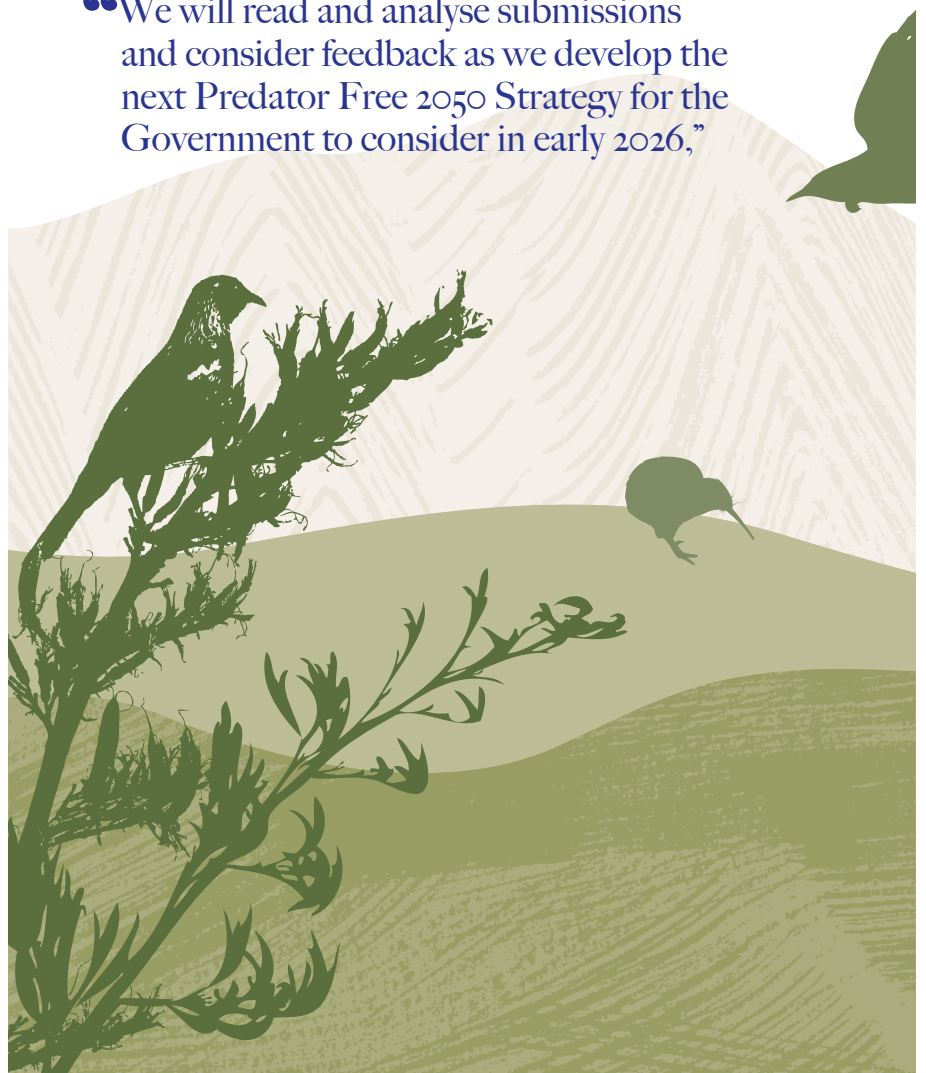
Submissions closed for the Predator Free 2050 Strategy review on 30 June.

DOC reports that it received more than 3000 submissions on the Predator Free 2050 Strategy discussion document.

"We will read and analyse submissions and consider feedback as we develop the next Predator Free 2050 Strategy for the Government to consider in early 2026," DOC Director National Programmes Ben Reddiex said.

DOC indicated the next five-year strategy, will focus on four things: mobilising for action, maintaining the gains, innovating for eradication, and preparing to accelerate.

"We will read and analyse submissions and consider feedback as we develop the next Predator Free 2050 Strategy for the Government to consider in early 2026,"



Strong interest in tougher penalties: Amending the Biosecurity Act

The Ministry for Primary Industries announced in April it had recently completed public consultation on proposed amendments to the Biosecurity Act.

Proposed amendments include higher fines for passengers bringing in undeclared high-risk goods, greater flexibility around importing requirements, and fairer cost-sharing for biosecurity responses.

The consultation attracted 137 submissions.

"There was particularly strong support for introducing new infringement offences, including additional penalties for travellers carrying high-risk goods," Biosecurity Minister Andrew Hoggard said.

He acknowledged [there was less support for some of the proposals, including greater cost-sharing with industry for biosecurity responses](#) and changes to compensation eligibility.

"There was particularly strong support for introducing new infringement offences, including additional penalties for travellers carrying high-risk goods.

From information supplied by Biosecurity NZ, 20 March 2025.



Disestablishment of Predator Free 2050 Ltd

In May 2025 the Government announced that Predator Free 2050 Ltd would be disestablished, with management being handed to the Department of Conservation. Predator Free 2050 Ltd is the Crown-owned company established to drive and fund large-scale eradication and breakthrough science.

Funding for the company will cease by the end of the year. The government says [the move will reduce duplication and increase efficiency](#).



World first: revival of the rat-specific toxin

A new breakthrough in predator control is on the horizon - a rat-specific toxin that leaves birds, pets, and livestock unharmed. Scientists worldwide have been exploring how to make it palatable to rats.

We have tools for controlling numbers in some environments, various toxins and traps, but they all come with their own complications and compromises.

What makes the toxin norbormide so exciting is that by targeting one species alone it can be used in any number of different environments safely.

Norbormide isn't harmful to native birds or, indeed, any other creatures. It doesn't bio-accumulate, i.e. it can't be passed on to other animals who might scavenge any carrion, and it poses no danger to livestock or family pets.

Norbormide was marketed as a species-selective rodenticide in the 1960s and 70s.

It was accidentally discovered in an American laboratory when researchers were searching for a new anti-rheumatic drug. When that didn't work, they investigated its potential as an appetite suppressant. It had no ill effects on house mice or cats, but it had a remarkable effect on the *Rattus* species.

As an ultra-targeted toxin, it has always had huge potential but has never been widely used. It is fast-acting, preventing the circulation of oxygen in the blood and killing its targets within an hour.

Unfortunately, this was also its downside.

"Rats are incredibly clever creatures; they have a feeding strategy that has allowed them to be very adaptive," Lee explains. "When they enter a new environment, they will nibble on any unfamiliar food and essentially wait to see if it has any ill effects."

If rats consumed a sub-lethal dose, they quickly became sick and learned to avoid it, so the compound largely faded into obscurity. "What you need are poisons with a slow onset of symptoms, or you need to trick them into eating it."

The trick is pre-baiting, leaving a non-toxic form of the bait out for weeks and replacing it with the toxic version, Lee says. "The rat comes along and says 'yeah, I know this' and you've already overcome that aversion."

Lee has been working on this research with Boffa Miskell, the University of Auckland, and Invasive Pest Control, with funding from Predator Free 2050 Limited, conducting field trials and landing upon solutions to make the poison more palatable and find strategies to make the delivery as effective and efficient as possible.

The results have been promising. Norbormide-containing paste baits proved highly effective, achieving elimination of Norway rat populations on three poultry farms and ship rats at two large field test sites.

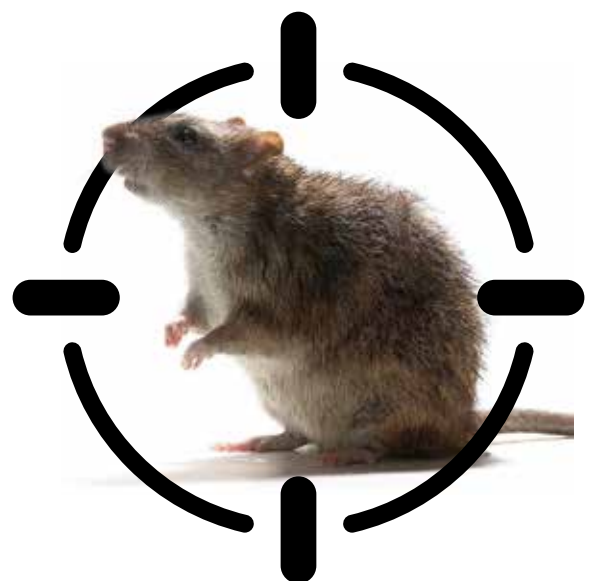
The research is now in the hands of the government to approve registration. If all goes to plan, norbormide could be in widespread usage across the country very soon.

"It's not a silver bullet," Lee explains. Other tools work better in different situations, such as GPS-guided 1080, AI smart traps, and others.

"Norbormide really fits by targeting rats and removing that risk to non-target species. It's a tool for improving our ability to respond to rodent control across all the different habitat types, whether that's off-shore, high country, native bush or urban environments."

Norbormide's targeted nature and relative safety make it an uncontroversial poison that can ramp up control of one of our biggest pests and ultimately make the 2050 target more achievable.

This article from Boffa Miskell's Insights publication, originally appeared on the Predator FreeNZ website in February.



A BIT ABOUT ROOKS BUT MOSTLY IT WAS ABOUT LEARNING AND SHARING: The Australasian Vertebrate Pest Conference 2024

By Juliet Brebner

With conference season approaching, what better time than now to do a write-up on the Australasian Vertebrate Pest Conference, hosted by the Australian Centre for Invasive Species Solutions, that I presented at in Sydney mid-last year.

I was lucky enough to be awarded the Wendy Meade Professional Development Award, which provides a member of the NZBI with funds to assist with professional development expenses (e.g. travel or additional training) where that member is undertaking activities to further their knowledge in the field of biosecurity.

The conference was attended by around 300 people and showcased a real range of topics relating to pest animal management. With sessions on managing rabbits, wild canids, feral cats, deer and pigs; biocontrol and biotechnology; managing urban and peri-urban pests and eradications there was no shortage of learning opportunities going on! Myself and Alastair Fairweather from Waikato Regional Council put together a presentation on managing our respective rook programmes which was really well received.

There were a few key themes that I took away from the conference that I thought I'd share:

- Monitoring is key – we can't manage what we don't measure (but appreciate that this can be costly). This includes monitoring outcomes, not just results!
- Australia has a big focus on research – very different funding structure than NZ and a lot more \$\$ available for science
- **Communication is key and is your friend:**
 - Messaging should have a big focus on impacts
 - Important to build media literacy
 - Clear, consistent and effective communications is important
- As we all know, **social license is hard to gain and very easy to lose**
- There was a big focus on feral cat management, something we have had minimal success with in NZ. In Australia they've had some very clever messaging that has enabled social license – a lot about the threats to domestic cats and clearly distinguishing them from feral cats
- Cross-tenure operations are vital and it's important to foster a culture of cooperation – **moving away from working in silos is very key to success**
- Acting early is always the best option!



Juliette Brebner shares her thoughts on rook control in New Zealand.

As always, the conference had a few field trips to choose from and I ended up going to the Bungaribee Reserve, a 200ha reserve in Western Sydney where they undertake feral Sambar deer control in the urban environment. The park has around 800,000 visitors annually so is pretty high use!

A few key takeaways that shone through for me were all related to public relations in order to avoid/reduce unnecessary public backlash and to allow them to get on with the job in the most effective and efficient way:

- Oversharing is fatal – not everyone needs to know what is going on
- Keep generic about communications e.g. "Vertebrate Pest Control" not "Deer Control", avoid mentioning firearms
- Key staff members working in the reserve are notified that operations will take place within a 1-2 month time period. Then they're given 72 hours notification before it begins



All about deer control.

All in all it was a great week over there, I met some really passionate and inspiring people and made some great contacts who I'm still in touch with so I'm really stoked to have had the opportunity to attend. Thanks NZBI for the support!!



Predator control highlights

Doc released its predator control programme report for the 2024 year, in May.

Currently, DOC controls predators on a sustained, rotational basis over about 1.8 million hectares, which is nearly 20% of public conservation land.

Here is a brief summary of Doc's five big-win highlights:

one

We've turned the tide for Fiordland tokoeka kiwi.

Before predator control, every single kiwi chick we monitored in Shy Lake died, meaning the species was facing extinction.

After predator control and eight years of research, last year's kiwi chick survival rate climbed to 60%.

two

Thanks to our science advice, we've improved timing for operations and achieved our best results yet.

Our scientists carefully reviewed the results of how we time our operations around beech masts. With their advice, we changed tactics and targeted rats either before beech seed was produced or after it had germinated.

It paid off big time – all our operations suppressed rats effectively, in most cases down to undetectable levels.

three

Pīwauwau rock wren thriving with predator control.

There is an average of twice as many rock wrens at predator control sites compared to sites with no control.

Every year our team surveys alpine rock wren populations. Research across our 25 sites shows that aerial operations help rock wren populations recover and grow.

four

We found a record-breaking pekapeka bat roost while monitoring the results of predator control

We discovered 275 bats in one tree roost in Whirinaki Te Pua-a-Tāne Conservation Park where we undertake regular predator control operations. That's a lot of bats.

five

Thanks to predator control, kākā in Waipapa have the most balanced sex ratio ever recorded.

Female kākā are more vulnerable to predation, especially when they're confined to nest cavities during breeding season. Studying the ratio of kākā males to females can help us understand the health of a population and its predation pressures.

This year, kākā monitoring in Pureora Forest (an ongoing predator control site) revealed a 1:1 sex ratio – the most balanced we've ever recorded.

Adapted from DOC's Conservation Blog 8th May 2025

A SAFE OPTION FOR COMMUNITY GROUPS:

Flowering cherry (*Prunus serrulate*) poison trial:

By Chris Cosslett for Greater Wellington Regional Council

In 2023, Greater Wellington trialled a new method for controlling flowering cherry trees using a countersink drill bit and herbicide gel. **The objective was to identify a technique suitable for use by community volunteers that avoids the need for spray application, carrying liquid for drill and fill, or felling large trees.**

The method involved using a 16mm countersink drill bit powered by an impact driver, which offers a significantly higher rotational speed compared to a standard battery-powered drill. Three different herbicide gels were tested, with treatment holes drilled at two spacings - 5 cm and 10 cm - around the trunk of each tree. Ten trees were treated for each combination of herbicide and spacing.

The trial variations were as follows:

1. Metsulfuron-methyl gel (Cut'n'Paste MetGel), 10 cm spacing
2. Metsulfuron-methyl gel, 5 cm spacing
3. Glyphosate gel (Weed Weapon Invade Gel), 10 cm spacing
4. Glyphosate gel, 5 cm spacing
5. Picloram gel (Triumph Gel), 10 cm spacing
6. Picloram gel, 5 cm spacing

Initial Observations (within two weeks):

- All trees treated with MetGel showed signs of complete die-off.
- Trees treated with glyphosate and picloram gels showed varying levels of stress, with only minor visible impact in most cases.

Follow-Up Assessment:

1. All but one of the MetGel-treated trees were dead. The exception was a large, multi-stemmed tree treated at 10 cm intervals; most stems were dead, but a few remained partially viable.
2. One small tree treated with glyphosate gel was dead. The remaining trees treated with glyphosate exhibited dieback at the tips but were showing strong signs of recovery.
3. Trees treated with picloram gel performed similarly to those treated with glyphosate. However, in the 5 cm spacing group, several trees appeared dead, while others were recovering.

Conclusion:

The results suggest that using MetGel at 5 cm intervals during the summer is an effective method for controlling flowering cherry trees. This technique may be a practical and safe option for community groups and volunteers aiming to manage invasive cherries without spraying or felling.

Side Note:

Old Man's Beard Free Wellington has reported success using a similar method for controlling Old Man's Beard (*Clematis vitalba*). Their approach involves drilling with a 13mm countersink bit and applying Gilmax gel or picloram gel directly to the plant, targeting the largest vines and rooted nodes. This technique reduces the need for cutting the vine. As part of their ongoing management, they revisit all sites to treat any vines missed during the initial application.



16mm Countersink drill bit



Spaced holes filled with gel. Note that the surface of each hole is coated without the hole being filled with gel.



Let's Finish The Job – The Case For Urgent Investment For The Wilding Conifer Crisis



Towards the close of last year, the Wilding Pine Network spearheaded a national advocacy campaign to raise awareness of the serious and compounding impact of insufficient funding for the national wilding programme.

"Two-thirds of critical work has been deferred since the 2023/24 financial year due to a significant reduction in funding for the national programme.," Wilding Pine Network Coordinator Jo Ritchie said.

"This means we are quickly losing ground across the country in areas affected by wilding pines and control costs are increasing exponentially.

"We will need to walk away from some areas due to a lack of investment.

The government has committed \$10M per annum - it's estimated the programme needs a minimum of \$25M this year alone to maintain the gains and keep removing seed sources - the funding shortfall this year is \$15M.

This figure compounds by 30% for every year the programme is underfunded., Jo said.

Contributed by Jo Ritchie, Wilding Pine Network Coordinator.

Drastic digger duty to deal with invasive weed



Cuscuta campestris

A large digger isn't something usually seen in a protected wetland, but it's proven vital in a collaborative effort to remove an invasive weed species.

The invasive plant *Cuscuta campestris* – also known as “golden dodder”, and more commonly referred to as simply “cuscuta” – was previously only known to be in north Waikato. That was until it was identified near the Piako River in 2024, in DOC's Hauraki operations district.

Cuscuta is a parasitic plant that sucks nutrients from other plants, and has the potential to smother native plant species. It can grow on a wide variety of plants, including pasture crops and waterfowl food, compromising both recreational and biodiversity values wherever it is found.

Biodiversity Ranger Rachel Langman said the plant was discovered by DOC staff at Kopuatai - a wetland of international importance - while doing routine trap checks.

To address the Kopuatai infestation, staff from DOC and Waikato Regional Council collaborated on a plan, which saw a large digger rolled out onto the site in January.

The digger's role was to remove the top 10cm of soil – containing cuscuta seed - and burying that soil in a 1m deep hole so the seeds couldn't germinate or be spread to other areas through human activity.

“Although the digger method seems drastic, it was identified as the best approach to controlling the infestation before it became unmanageable,” Rachel said.

“We expect grasses, which are not a host of cuscuta, to regenerate where the topsoil has been removed.”

Adapted from material supplied by DOC 11 March 2025.



Cruise ships appear to be behaving

Towards the end of April, close to the end of the cruise ship season, and with just one more ship expected to arrive in New Zealand for the first time, Biosecurity New Zealand reported it had so far assessed 44 vessels which had visited kiwi shores this season, for excessive marine growth on their hulls and other submerged surfaces.

Mike Inglis, Biosecurity New Zealand commissioner north said of those, **only one vessel this season required cleaning to show compliance** with New Zealand's biofouling rules.

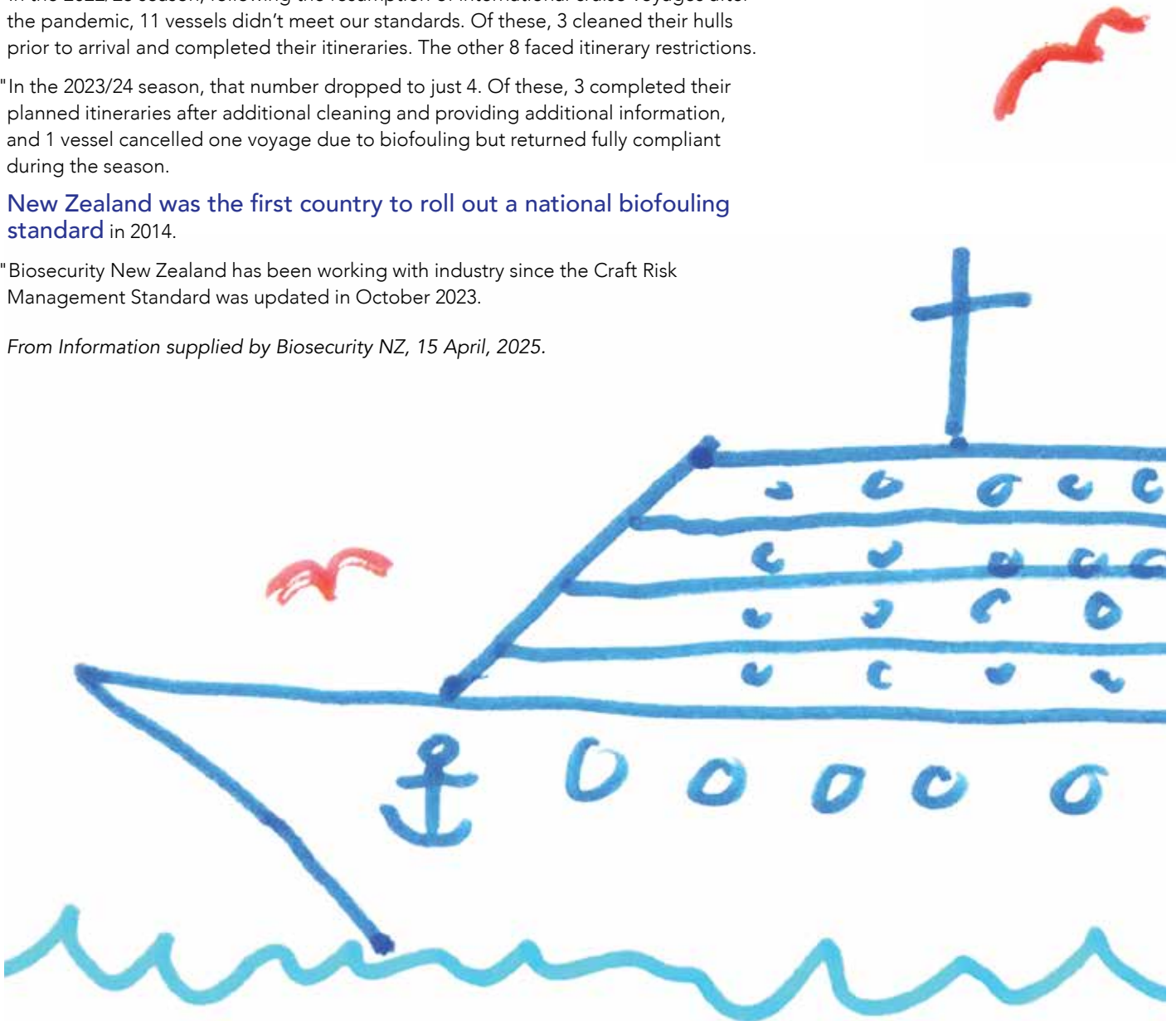
"In the 2022/23 season, following the resumption of international cruise voyages after the pandemic, 11 vessels didn't meet our standards. Of these, 3 cleaned their hulls prior to arrival and completed their itineraries. The other 8 faced itinerary restrictions.

"In the 2023/24 season, that number dropped to just 4. Of these, 3 completed their planned itineraries after additional cleaning and providing additional information, and 1 vessel cancelled one voyage due to biofouling but returned fully compliant during the season.

New Zealand was the first country to roll out a national biofouling standard in 2014.

"Biosecurity New Zealand has been working with industry since the Craft Risk Management Standard was updated in October 2023.

From Information supplied by Biosecurity NZ, 15 April, 2025.



Caulerpa: New removal technology projects underway

Early this year MPI announced that contracts had been awarded for three projects to drive improvements in technology to control exotic caulerpa seaweed.

The three projects share the \$10 million funding injection announced last year and focus on methods that have previously shown promise.

Northland Regional Council (NRC) has been awarded the largest contract, with just over \$6 million to progress its large-scale mechanical suction dredging technique that was trialled in Omakiwi Cove last year.

The first phase of the work, funded under the accelerated programme, demonstrated that the method can remove exotic caulerpa from sandy areas of the seafloor, and now the plan is to increase its effectiveness.

The project team is developing a new tool called a 'submersible dredge planer' which will operate remotely on the seafloor, rather than from a barge, and aims to remove caulerpa in a single pass.

The new system will include a dredge head, pumping arrangement, GPS positioning system, dredge spoil processing plant, and disposal system.

Work is in the planning and development stage, with trials in the water expected to start later in the year.

The second project, receiving \$2 million in funding, is developing an ultra-violet light (UV-C) irradiation tool to kill the pest seaweed.

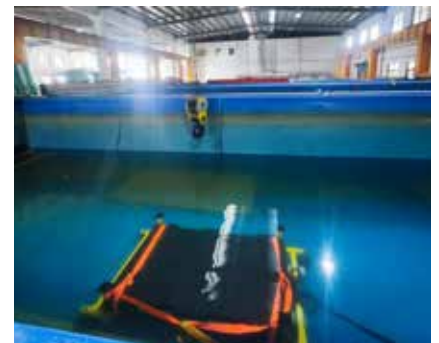
This contract has been awarded to Advanced Aquarium Technologies Ltd who aim to create a cost-effective option to treat exotic invasive caulerpa without needing to deploy SCUBA divers.

It will require minimal labour, operate off a vessel, and be able to be used at any depth of water from intertidal zones to 40m depth which is important as exotic caulerpa can grow at this depth.

The third project, with \$1.9 million funding, is a special underwater treatment 'chamber' with a frame which covers the area of caulerpa being treated and has curtains to contain chlorine within the specific treatment area.

This chlorine treatment chamber, being developed by Commercial Dive Specialists, will be able to hover over the seabed and pass over rocks and other obstacles without getting stuck.

From an update prepared by MPI, 28 February 2025.



Testing the equipment underwater. Photo: Advanced Aquarium Technologies Ltd.



The equipment before shipment to New Zealand – showing four trolleys carrying the UV-C lights linked in a 'train'. Photo: Advanced Aquarium Technologies Ltd.



Ensuring the UV-C bulbs are waterproof. Photo: Advanced Aquarium Technologies Ltd.



The conifers are spreading, so why isn't the money?

Effective pest control requires consistency and a long-term commitment to outcomes, says biosecurity consultant at Boffa Miskel, Sian Reynolds. In this item, Sian offers her thoughts on the evergreen challenge of pest control particularly wildings, and why funding is complicated.

If we are serious about safeguarding Aotearoa New Zealand's unique biodiversity, **then we must treat biosecurity funding as a long-term national priority.**

Biosecurity threats within New Zealand are ever-pressing, ever-spreading, and the number of pests banging at our doorstep are constantly on the rise.

Government funding has always played a pivotal role in protecting this country from the myriad of pests.

I've spent over a decade working on landscape-scale predator, ungulate, weed, and wilding conifer control. The Boffa Miskell biosecurity team has led the wilding conifer control programme at Mid Dome in Southland since 2014, and we've managed the same pest at Rangitahi | Molesworth Station since 2020. These are both vast, ecologically significant areas and the impact of wilding conifers is no longer benign. It is visible, tangible, and deeply concerning.

The fact is, wilding conifers are a pest we can win against. Seeds rot in the ground after approximately five years and, for the worst wilding conifer species, seedlings do not cone until at least five years of age. Therefore: complete the initial round of control to remove the coning tree; return in three years' time to control the seedlings; repeat this process three years later, and voilà – odds are, you have almost eliminated the problem.

Why, then, are we not on top of the wilding conifer situation?

Because our ability to achieve suppression, elimination, or even eradication of a pest within New Zealand is positively correlated with consistent levels of adequate funding.

Unfortunately, ebbs and flows of committed biosecurity funding has the most significant influence on our ability to persistently apply pressure to key pest species.

Why are we so reliant on government funding?

Because approximately one third of all New Zealand is public land, not to mention the expansive marine space that surrounds the entirety of the country. Additionally, the New Zealand Acclimatisation Societies, established in New Zealand by European colonists from the 1860s, operated with government support and legal authority and are responsible for the introduction of many plants and animals that we call 'pests' today.

With responsibility over such an expanse of land, now home to the pests that were introduced to New Zealand with governmental support, it's no wonder that many believe that the current government needs to take accountability for the problems it created in the past.

It needs to be noted that, in many cases, private landowners contribute to control efforts through council rates, or through their own appreciation of the importance of pest control – whether from an economic, amenity or biodiversity perspective.

Constant changes in government leadership, policies, and intention are worrying for the biosecurity industry, and the uncertainty in funding that comes with these changes means that **wins made against pests with one government can be quickly unravelled by another.**



A major funding injection in 2020 allowed for significant progress against wilding conifers. Over the last four years, the programme received \$140 million from government and a further \$20 million from partner organisations. This approximately \$40 million per year allowed us to reduce wilding conifer pressure in many high-risk areas like Rangitahi | Molesworth Station, Mid Dome and throughout the Canterbury high-country.

Wilding conifer spread at Rangitahi | Molesworth Station. It's a prime time to be controlling this pest while it is still relatively medium density, and not like a brick wall.

But we know that effective pest control requires consistency and a long-term commitment to outcomes. These weeds were not established overnight and the outcome of eradication, or at least containment, will not be achieved with this expectation either.

We are now at a tipping point in the fight against wildings.

Funding has returned to a national baseline of only \$10 million per year – just a quarter of what was previously being spent and what is needed to maintain positive progress.

Of the 79 Management Units throughout the country, only 31 are currently funded.

Forty-two others receive nothing, despite known and spreading infestations not slowing down within them. Without immediate and consistent funding at levels beyond \$40 million per annum, all the significant progress made since 2020 will be rapidly reversed. At Rangitahi | Molesworth, for example, control budgets have dropped from \$3.5 million to just \$900,000 per annum. That reduction has forced difficult decisions, including the deferral of control in areas like the Tarndale and Sedgemere lakes, which are of national ecological significance.

The economics of wilding conifer control are clear. A 2022 report by independent research consultancy Sapere showed a cost-benefit ratio of 1-to-34 for controlling wildings. That means that every \$1 invested in wilding conifer control delivers \$34 in avoided losses and costs. But the earlier we act, the better. Wilding conifers grow and multiply over time, and so does the price of dealing with them. The most invasive wilding conifer species, such as contorta, can be eliminated but only if we act before they reach seeding age; and only if we act consistently.

What we lack is not capability to do the job but consistency in our ability to do it properly. Without stable, long-term funding, we are doomed to repeat a cycle of progress and regression, boom and bust. Every dollar withheld today is not just a missed opportunity, it's a future cost magnified.

Over the past four years, the wilding conifer programme has proven that with adequate investment, we can turn the tide. But with inadequate investment, we risk undoing years of gains, allowing these pests to reclaim ground we've already fought to protect.

If we are serious about safeguarding Aotearoa New Zealand's unique biodiversity — our beautiful landscapes, fisheries, and high-country pastoral areas — as well as our economic interests and the livelihood of many of our communities, then we must treat biosecurity funding not as a nice-to-have discretionary expense, but as a long-term national priority.

Because in the fight against invasive pests, **the greatest threat isn't the pest - it's the pause in the fight against them.**

Adapted from an item contribute by Boffa Miskell.



Not your average smuggler. No reptile was harmed in this story

A man who was going through security at a New Jersey airport was found to have a live turtle concealed in his pants.

The turtle was detected after a body scanner alarm went off. A Transport Security Administration officer carried-out a pat-down on the man and determined there was something concealed in the groin area of his pants. The man reached into his pants and pulled out the red-ear slider turtle. It's not clear if the turtle was the man's pet or why he had it in his pants.

"We have seen travellers try to conceal knives and other weapons on their person, in their shoes and in their luggage. However, I believe this is the first time we have come across someone who was concealing a live animal down the front of his pants," said a security staffer. "As best as we could tell, the turtle was not harmed by the man's actions."

Turtle and apparel not necessarily the same as those mentioned in the story.



“As best as we could tell, the turtle was not harmed by the man's actions.”