



inside

NZBI Contacts	2
Editor's Note - Murihiku: it's great to be at the tail end	3
From the President - New Issues	3

NZBI NEWS

Thank You Kay Holder	4
Connecting and Sharing on Waiheke	4

NETS2024

Perseverance and Optimism Wins: Peter Nelson Memorial Trophy for Pomona Island Trust	6
NZ AutoTraps Always Innovating: The Dave Galloway Innovation Award	7
Connecting the wise with the eager to learn: Mentoring a Priority for New NZBI President	8
NETS Review	9

SECTOR NEWS

Maintaining the Gains: Biosecurity Week 2024	20
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ANIMALS

Lone Stoat Meets Its End After Six-month Evasion	21
More Kiwi on Heaphy Track	21
Timing is Everything: DOC Reports Best Results Ever	22
Successful Kākī Breeding Season	23

PLANTS

Rapid Growth for Weeds List	24
-----------------------------	----

AT THE BORDER & RESPONSES

Caution on Tomato Imports	25
---------------------------	----

FROM THE ARCHIVES

Listen to this	26
----------------	----

THE TAIL

PS - A word of warning	27
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The New Zealand Biosecurity Institute can be found on the web at www.biosecurity.org.nz



■ FROM THE EDITOR

Murihiku: it's great to be at the tail end

It was great to be in Murihiku (the tail end) this year, to attend NETS2024 in Invercargill and to see as much as possible in a few days, of what the region had to offer.

As always at NETS, the technology for me appears to be getting more exciting every year. Especially exciting are the almost endless possibilities.

Equally important is hearing about the hard mahi being carried out by organisations, individuals and communities across the motu.

It was good to see a robust discussion at the AGM about the purpose of the Institute.

It is Interesting that 22 years ago at the same venue at NETS2002, a similar discussion occurred about the wider role of the Institute and whether it should be a one stop shop for all, or have more of a coordinating role.

In this issue we also learn that not all natives are the goodies. That native plants as well as birds are causing a few headaches in parts of the country.

We also hear about a threatened gecko as well as an unwanted one.

I took the opportunity to interview senior members Trevor James, Peter Russell and Kevin Christie while we were all on the spot in Invercargill. It was a pleasure to learn about their careers. These chats will become part of the Institute's Oral History Archive. I am very grateful for the time they gave me.

CHRIS MACANN
EDITOR

■ FROM THE PRESIDENT

New Issues

It has been a very busy year in the sector and yet again we face new biosecurity issues which we didn't face at the beginning of the year. It just goes to highlight the important work all members do.

I'd like to thank the NETS 2024 Organising Committee and the sponsors for putting together such a fantastic conference a few months ago. There wasn't a moment to be wasted in gaining new insights into tools and strategies across different aspects of biosecurity, as well as catching up with colleagues and putting names to faces. There's huge value in networking, especially at NETS which is so well attended, and it was great to talk with many of you there!

We also held our NZBI AGM at NETS, where we had a useful discussion regarding the purpose of the Institute and its function. Thanks to those who shared their views on a possible trading name for the NZBI - the idea of a trading name would be that the NZBI would keep its formal name, but would have a less formal 'trading name' we would use so that we weren't confused with Biosecurity NZ. The Executive Committee is keen to hear more from members about a potential trading name, including whether you'd support this or not and any name ideas.

In the months since NETS, the Executive Committee has been doing some behind-the-scenes work on improving our membership record keeping and invoicing processes. We're hoping this will save us and you all time.

I hope you all manage to find some moments of calm in the hectic summer months, and as always, please let me know if you have any feedback or thoughts on the NZBI.

Ngā mihi,

ROWAN SPRAGUE
PRESIDENT



Thank You Kay Holder

The Canterbury Branch acknowledged the untimely passing of long time member and supporter Kay Holder. Kay was still employed as the Christchurch City Council Regional Parks Manager. Kay empowered and encouraged her staff to take part in Institute events. Her partner Col Pearson is a past editor of Protect Magazine. The national executive and Canterbury Branch have acknowledged Kay's contribution and thanked her family for her long time support.

“She knew at times we needed to do the right thing, rather than doing things right”

Colleague

Connecting and Sharing on Waiheke

Natalie de Burgh, Biodiversity Officer at Hawke's Bay Regional Council was the winner of the Institute's 2023 Wendy Mead Professional Development Award. Here is Natalie's report on how she put the assistance to good use:

Predator Free 2050 Limited's Landscape Project Hui provided the opportunity for all 18 landscape elimination projects funded by the company to connect and share learnings. The March 2024 Hui, hosted by Te Korowai o Waiheke was the fifth gathering since the first tranche of projects launched in 2018.

The Hui was a valuable point of contact, and sharing learnings is an important part of the Predator Free endeavour. Each landscape project is gaining knowledge to contribute to the overall picture, and more often than not challenges are often similar across landscapes and species.

Hawke's Bay Regional Council's Whakatipu Māhia/Predator Free Hawke's Bay project started on the groundwork early in 2019 with the aim to completely remove possums from the 14,600 ha Peninsula. The project is in its final stages, with 6,500 ha of possum free area in the south, and remaining hotspots targeted with mop up trapping.

Following the ongoing impacts of last summer's Cyclone Gabrielle, opportunities for HBRC staff to travel have been limited. The PFHB team is grateful to NZBI for the award of the Wendy Mead Professional Development Award to travel and present at the Hui.

Among the key learnings from the project is the importance of using effective knockdown tools such as brodifacoum and feratox. Land tenures can also pose a challenge, and restrictions set around tools such as brodifacoum can mean less effective control operations – resulting in more expensive and labour intensive methods.

If the project was to be started from scratch, it would be worthwhile to undertake a dog survey before starting control work to identify areas with no resident possums. The Māhia Peninsula had been a part of HBRC's Possum Control Area programme since the early 2000s, and as such had a long history of possum control on the sheep and beef landscape of the Peninsula. As a result of this ongoing control, possum numbers were patchy in these areas. Using dogs to map out areas of no possums would have saved significant resourcing at the start of the project.

The team have also found that using detection devices at different scales in the landscape can help drill down to remaining pockets of possums. For example, a network of trail cameras gives a good indication of possum locations at a landscape scale, and this camera data can be fed directly into the dog surveys, then able to give the next layer of detail.

Detection dogs have become an important part of the project, particularly in the later stages. Scat mapping has demonstrated its effectiveness at pinpointing remaining possum home ranges. **Possoms produce over 90 pellets of scat every day, and with the ability to detect scat several days old (weather dependent), makes the presence of a possum much more detectable than if a detection dog was searching for a single possum.** In one instance on Māhia, the scat dog was able to locate within the single patch of vegetation on a property, the individual tree that a possum family group was living in. Leghold trapping the base of the tree resulted in all individuals captured over two nights.

Ground set legholds are the mop up tool of choice. Research by Manaaki Whenua has indicated that ground set legholds may not fall under the same limitations as other traps that require deliberate interaction by the target species. The more open the architecture, the less an animal has to interact with a device, the greater the device sensitivity. As the mop up has progressed, the team has become aware of the increasing importance of the sensitivity of devices. Interestingly - trap shyness does not appear to have become an issue as yet.



Natalie de Burgh addresses the hui on Waiheke Island

Another observation has been in the Māhia Scenic Reserve, which continues to harbour possums. The Reserve had a history of minimal possum control, and due to the steep nature of the terrain has created significant challenges. The population was undoubtedly near carrying capacity, with very small home ranges of individuals. Interestingly, we know that home ranges are density dependent. However, following the knockdown of the population within the Reserve, **home ranges remain small as confirmed by possum dog surveys.** There appears to be a lag phase for possums to transition in behaviour from a high to low density population, although this is anecdotal.

DNA is also playing a role in this late stage of the project, especially when planning for maintaining the possum free area into the future. Recent DNA results from samples taken both on and immediately outside the Peninsula have found highly related individuals on both sides (first cousins!). This indicates that the narrow neck of the Peninsula itself does not pose a physical barrier to possum movement, and justifies investment into an effective barrier.

The project is in the final stages of the mop up, and the team hopes to make the most of a typical dry summer period to get work done on the ground and reach proof of absence of possums for the Peninsula, and share learnings of the project. Thanks again to NZBI for supporting this endeavour.



Perseverance and Optimism Wins: Peter Nelson Memorial Trophy for Pomona Island Trust



Pomona Island Trust members from left Lynley and Paul King, Chairman John Whitehead and NZBI President Rowan Sprague.

"It's not about catching the last rat; it's about stopping the next one.

"Putting the traps out is ok but it's about persuading them to go into them.

"We were pretty naïve when we first went into it. We did well enough but the challenge is that they won't come back. **We need technology to help finish what we set out to do twenty years ago,**" Mr Whitehead said.

"Knowing that you guys [The NZBI] exist is as good as getting the award," Mr Whitehead added.

The Peter Nelson Memorial Trophy is awarded annually by the NZ Biosecurity Institute to individuals or organisations, for achievement in Vertebrate Pest Management within New Zealand.

Peter Nelson made a huge contribution to establishing professionalism within the field of vertebrate pest management in New Zealand in a career which began in 1967.

The trophy is a carved kokako standing on a limb above the skulls of small predatory mammals - a rat, a possum and a stoat.

Quiet perseverance and optimism have won Southland conservation group Pomona Island Trust a prestigious legacy award from the New Zealand Biosecurity Institute.

The group has won the NZBI Peter Nelson Memorial Trophy, for achievement in Vertebrate Pest Management.

The Trust aims to restore and conserve Pomona and Rona Islands on Lake Manapouri as sanctuaries for native plants and animals.

The award assessors were impressed at how much physical work the group put in, maintaining their trap lines on a regular basis as well as their collection of trap data and its analysis over many years.

The group has an extensive network of traps on the islands which volunteers check regularly, as well as servicing traps on the mainland opposite the islands.

The Trust has eradicated possums and deer from Pomona Island, and has reduced mice, stoats and rats to low levels, helping both birdlife and invertebrates. There are now thriving populations of native plants and animals on both islands.

The group use Rona Island as a nursery for young Haast tokoeka, also known as Haast kiwi, to grow them to a size where they can be relocated to unprotected habitat. Rona Island also has ground cover of native orchids because it is deer free.

Trust Chairman John Whitehead said "It's all about perseverance and optimism."

NZ AutoTraps Always Innovating: The Dave Galloway Innovation Award

Continuous trap improvement has won NZ AutoTraps the New Zealand Biosecurity Institute's Dave Galloway Innovation Award.

The award nomination from Otago/Southland Branch, noted that since the first NZ AutoTraps prototypes were developed in 2016, the traps have been under continuous improvement. Each improvement has increased the original design's effectiveness and durability, to the extent that the current version of the AT220 is quite different from the plywood prototypes where it all began.

The nomination said:

"There are limited resetting automatic traps around, so we are very lucky to have NZ AutoTraps invent and design an effective, simple to use, robust trap to work in trying conditions principally targeting possums but also picking off rodents and other predators."

It noted that:

"NZ AutoTraps is continuing to experiment with different lures, and set parameters to improve the trap efficacy on rodents, mustelids and cats.

"The innovations within the AT220 such as day-safe mode, an app, sensors, the pump, lure pouch, the flowing long-lasting lure, battery, the shape and jaw action are uniquely designed.

"NZ AutoTraps' AT520AI version continues the innovation with AI camera tech, to identify target pest animals versus non-target animals.

The company is doing groundbreaking work on enabling the traps to work safely around some of New Zealand's most precious indigenous species like kaka and kea.

"The company has now developed the AT230 that incorporates a microchip scanner to detect domestic chipped pets. **This enables the trap to work safely in areas that domestic pets may frequent.**"

NZBI president Rowan Sprague said "This



NZ AutoTraps Operations Manager Haydn Steel, left, with conference organising committee Chair Raoul Thomas.

award recognises innovation, which is critical in our sector.

The innovation of NZ AutoTraps means that predator trapping is more efficient and safer, and it's exciting that they are continuing to innovate and improve trapping technology."

The Dave Galloway Innovation Award is named in memory of Life Member Dave Galloway. The Award recognises innovation in biosecurity. It encompasses work carried out with both vertebrates and invertebrates, terrestrial and aquatic.



CONNECTING THE WISE WITH THE EAGER TO LEARN:

Mentoring a Priority for New NZBI President



“The strength of the NZBI is the way it connects all the parts of the engine”

The New Zealand Biosecurity Institute has elected Lincoln-based Dr Rowan Sprague as its new President. Dr Sprague has a research background in wilding pine trees and is now a knowledge broker for Manaaki Whenua – Landcare Research.

Dr Sprague succeeds Jono Underwood who stepped down from the role earlier this year.

Dr Sprague plans to concentrate on encouraging newcomers and supporting professional development in the sector. As the NZ Biosecurity Institute’s recent Vice President, Dr Sprague introduced a mentoring scheme for members of the Institute.

“I saw mentoring as a key aspect of a functioning professional body. It is vital to make sure members are engaged and well informed.”

I see the Institute’s key role as providing opportunities for those working in the broader biosecurity system to share, learn and get to know who’s who.

The Institute’s networks make it far easier to connect the questions with the answers. If you can’t find the answer, you will definitely find out who knows the answer.

She said the Institute’s members form the inner engine of the NZ biosecurity system.

“The strength of the NZBI is the way it connects all the parts of the engine,” she said.

The Institute can take pride in the calibre of its members, and I see that as a key reason for the world-class biosecurity system we have in New Zealand.

The government has set some pretty ambitious targets for the biosecurity sector over the past few years and the Institute and its network of practitioners, managers, policy makers and researchers are well placed to work effectively towards them.

“As well, the unwanted establishment of plant diseases kauri dieback and myrtle rust and the sustained control efforts to eradicate the cattle disease *Mycoplasma bovis*, the discovery of *Caulerpa* in Northland and invasive freshwater clams in the Waikato have tested biosecurity workers nation-wide as they have come together to manage the diseases’ further spread.

“All this on top of Institute members’ efforts to control legacy pests such as gorse, broom, rabbits and possums, among many other unwanted organisms,” she said.

We face budget constraints along with most sectors, so the challenge is spending resources wisely whether they be research or operational.

“The Institute exists for its members. Its prime function is to encourage and support members to do their job to the best possible standard,” she said.

NETS Review

"Never work with animals and children" might be a showbiz mantra but at NETS2024 in Invercargill it proved a successful formula. A puppet show also had its place this year.

Dogs proved their worth at sniffing weeds as well as native species and pests, and it was a stunningly beautiful lizard with a riveting tale to tell which grabbed the attention of all assembled. Pupils of Hedgehope School shone as well with their story about protecting taonga and their hopes for the future.

When it began NETS2024 in Invercargill was already in a positive mode following an enormously successful weed eradication workshop on the preceding day.

"We had three times more people than expected," said the presenters Paul Champion, Trevor James and Heidi Pene. It would be fair to describe it as a full house - bursting at the seams almost.

Organising committee Chair Raoul Thomas enthusiastically welcomed one-and-all to the southern end of the country.

Acting President Rowan Sprague **noted the "Maintaining the Gains" theme recognised the importance of tenacity in biosecurity.**



Bec Simpson and Beth Williamson from Boffa Miskell. Bec won the Stook awarded for best presentation.



A Rakiura local. Photo Briar Cook



The NZBI Executive - Raoul Thomas, Diane Fraser (Secretary), Nick Ward, Rowan Sprague (President), Briar Cook (Membership Officer), Duncan McMorran (Treasurer), Shane Hona (Vice-President). Absent - Mark McAlpine, Brad Chandler.



Andie Gentle and Hannah McLeod with their friends.





Weed sniffer Wink with his trainer John Taylor.

“It connects to why we do the work we do over the long-term – keeping at it to protect our native flora and fauna, our landscapes, our people and our culture.

The theme Puritia te aronga means to retain or hold actively onto the focus or direction, and that’s what we need to do with any long-term biosecurity goal.”

All about Titi

Opening addresses from members of the Tati Rakiura Titi Administering Body emphasised the importance of the taonga titi species (muttonbird, sooty shearwater, *Ardenna grisea*) and the importance of looking after the island group named after them. Removing pests from Rakiura will be a huge asset to the Titi Islands adjacent to Rakiura. At present those islands experience rat incursions from Rakiura, endangering flora and fauna. A pest free Rakiura will bring back the mauri of the islands and will also improve their economic value.

It's not just animal pests that challenge the Trust. It also faces the invasive indigenous plant taupata (*Coprosma reopens*) which is invading new islands, outcompeting native flora and affecting the breeding ground of the titi. The taupata expansion has been described as an ecological disaster. It threatens the ecology of the islands and the future sustainability of the culturally significant mahinga kai practice of harvesting the birds.

Drones and Lizards

Skink and gecko researcher Carey Knox’s opening address could have been a crime thriller. It was anchored around the beautiful hura te ao gecko - the face of NETS2024, and the inspiration for the theme.

The hura te ao gecko (*Mokopirirakau galaxias*) is a new species, first discovered in 2018 in North Otago.

While we often can clearly identify native flora and fauna that benefit from long term biosecurity projects, **hura te ao geckos are a reminder that the work we are doing and the focus and direction we need to maintain may well be protecting more treasures that we have not yet discovered.** It's good looks make it and others susceptible to poaching as well as all else these creatures have had thrown at them.

Carey is presently researching the use of drone technology to locate lizards in inaccessible habitats, such as areas of steep terrain and areas with closed canopies. He described his early encounter with the jewelled gecko which led to his interest in herpetology. This interest has seen him help police with identifications of individual jewelled geckos which had been poached, resulting in prosecutions and repatriations.

All about Momentum

Thus, the scene was set for three days of knowledge sharing, with a clear focus on maintaining the good work achieved so far, and continuing the momentum in, among other areas:

- Marine biosecurity
- Island eradication and protection from invasion
- Mail order threats and regulating the sale and breeding of pest pets
- Outsmarting predators with AI technology and new bait delivery systems
- Detection and control of weeds above and below the water
- Effective collaborations across the sector





A mollymawk drops by. Photo Regan Courtney.



Vice-President Shane Hona and President Rowan Sprague explain some of the mentoring opportunities available through the Institute and Te Puni Kōkiri.



A new population of Canterbury spotted skink was discovered by Carey Knox on this small steep-sided sea-stack off the coast of Banks Peninsula, using a DJI Mavic 3 Pro drone.



The hura te ao gecko (Mokopirirakau galaxias) was discovered by a team of herpetologists at high elevation in Oteake Conservation Park in January 2018.



A jewelled gecko photographed with red berries on the shrub *Acrothamnus colensoi*, Oteake Conservation Park.



A jewelled gecko in the forest canopy on Otago Peninsula. This was photographed by a DJI Mavic 3 Pro drone from 10 m back during Carey Knox's PhD research.



Advancing biosecurity is about detection, attraction and dispatch - Stephen Horn

Anything is possible with effort - Hedgehope School pupils

We all either need to lead, follow, or get the hell out of the way
- Terry Donaldson AgriQuality, NETS2002, Invercargil

If you get engagement right, you have a high chance of getting outcomes which are successful - Diane Fraser

We call it a predator free project, but really it is an innovaton project - Rhys Miller about Predator Free Dunedin

Our eyes are good but their noses are better - Angela Newport on DOC's Conservation Dogs programme

It's a lot easier to use the nose to find green things in a very green environment
- Angela Newport on DOC's Conservation Dogs programme

Far and Wide

Field trips travelled far and wide across the region. Enthusiastic presenters shared their special and personal connections with the land and their biosecurity projects including restoration in wetland and estuary mudflats and wilding tree control.

Visitors saw the work of landcare groups including, the Wairau Trust which has been dedicated to creating enhanced habitat in the Waiau River catchment since 1996; and The Otatara Landcare Group with projects in the Otatara area, New River Estuary, Sandy Point and Oreti Beach.

Among many highlights were visits to DOC's Invercargill quarantine facilities which strive to keep the southern islands predator free, and spotting takahe at the Burwood Takahe Centre, which included a puppet show of sorts. The puppet takahe have, historically, been helpful for rearing chicks.



NZBI President Rowan Sprague passes on some positive mauri to the NETS mauri stone, Te Hau o Te Tai Tokerau.

Robust Discussions: the Annual General Meeting

The annual general meeting elected Acting President Rowan Sprague from Canterbury-West Coast Branch as President, and returned Top-of the North Branch's Diane Fraser as secretary and Central North Island's Duncan McMorran as treasurer.

Following a robust discussion, the meeting agreed to accept an invitation to join the Save Science Coalition: a group of science organisations concerned about possible science cuts in New Zealand.

Members were in clear agreement that any reduction in science and research could have a significant effect on the development of beneficial tools within the biosecurity sector. It was also noted that it was essential that the Institute not be seen as a lobby group. Historically the Institute existed for the benefit of all its members whether they be from the private or government sector. It was noted that the Institute arose from different organisations when government bodies went out of existence, so it is important to question what is appropriate to support in the future. It was agreed that the Institute should be seen as a pro-science organisation.

An enthusiastic discussion arose about creating a trade name for the Institute which is less formal.

One proposal was Aotearoa Biosecurity Network. It was noted that Network captures what NZBI represents. The meeting agreed that the Executive Committee will discuss this further and approach members after further discussion.

The meeting heard that the NZBI will co-host the Australasian Weeds Conference in 2026 with the NZ Plant Protection Society (NZPPS). The AWC2026 will be held in Christchurch and is likely to attract over 250 participants from across Aotearoa and Australia. Consideration is being made of working NETS2026 in with the Australasian Weeds Conference and the NZPPS. Some significant work is still involved, including accommodating the animal pest thread, as well as retaining the NETS identity. A key advantage is the benefit of sharing knowledge with the Australians.





Taonga.



Gareth Preston from NIWA explains his wares.



Treasurer Duncan McMorran, Membership Officer Briar Cook, President Rowan Sprague and Secretary Diane Fraser at the AGM.



A big operation - the closely monitored salmon farm - Patterson Inlet.

Those Recognised

Southland conservation group Pomona Island Trust won the NZBI Peter Nelson Memorial Trophy, for achievement in Vertebrate Pest Management.

NZ AutoTraps received the Dave Galloway Innovation Award.

Bec Simpson from Boffa Miskell in Christchurch won the Stook for best presentation. Bec spoke about using AI to outsmart predators. Bec presented on behalf of colleague Helen Blackie.

The Top of the South Branch retained the team shooting trophy.

President Rowan acknowledged the NETS2024 organising team: Chair Raoul Thomas, Rose Hanley-Nickolls, Sarah Irvine, Sophie Gibson-Pinn, Rachel Jones, Brent Rohloff, Richard Bowman, Jolie Hazley, Walter Fiel, Pat Hoffman, Sharon Trainor, Kaitlin McKenzie among others.

She thanked major sponsors Biosecurity NZ, Otago Regional Council, Environment Southland, Boffa Miskell and NZ Aluminium Smelters as well as trade display sponsors Rapid Spray, NZ AutoTraps, Unitec, Key Industries, and NIWA.

Next Year

Craig Davey invited one-and-all to join the lower North Island Branch at NETS2025 in Palmerston North from 23-25 July, with the theme of Biosecurity for a Better Future - Haumaru koiora kia pai āmua.

The Stayers

Around 20 stayers took the opportunity to visit Rakiura/ Stewart Island while in the deep south. In particular we enjoyed a visit to pest-free Ulva Island and Patterson Inlet's historic whaling site, and a look at the strictly managed mussel and salmon farms.

The group was treated with special appearances by locals including albatross, penguin, sealions, weka, kiwi and kaka. It was a joy to see a kiwi in the wild.

Rakiura means 'glowing skies', and it is immediately clear why. On a cloudless Rakiura night you can see just how milky the milky way really is.

A great way to remember the week that was.



Roy Thrush from Rapid Spray explains the workings of the flowmeter to dog trainer John Taylor.



A furry superstar at the DOC quarantine facilities at Bluff.



DOC quarantine facilities at Bluff.



Te Rau Aroha Marae, Bluff.





Ulva Island - leave only footprints.



All about the photo. Trevor James.



Happy Rakiura shags. Photo Regan Courtney.



Old whaling station - Patterson Inlet.



Some stayed on to enjoy Rakiura and Ulva Island.



Sealions in Patterson Inlet put on a display.



Rakiura herons. Photo Regan Courtney.



Nichollette Brown explains the takahe breeding programme at the rearing pens.





Beth Williamson, Shaun Thomason, Chris James, Zac Robinson, Ilona Keenan and Bec Simpson.



Hot shots from the Top of the South Branch - Liam Falconer and Briar Cook hold aloft the team shooting trophy.



Haydn Steel explains a NZ AutoTrap to Millie Mannering.



Both kinds of kiwi footprints on Ulva Island.



Diane Fraser chats with Kate McAlpine.



A friendly Rakiura local.



Clair Jordan explains the work of the Waiau Trust.



Kathryn McLachlan from Environment Southland, left, and Jen Geange from MPI lead a discussion on marine challenges in Southland.



Jason van de Wetering explains the business of takahe rearing with the help of friends.



Hedgehope School pupils talk about their restoration project and their hope for the future.



A full house. The pre-conference weed eradication workshop.



MAINTAINING THE GAINS:

Biosecurity Week 2024



The Institute prepared the following message to introduce this year's Biosecurity week in July:

New Zealand landscapes are in danger of changing forever if we don't keep our foot on the biosecurity pedal.

That's the thoughts of the NZ Biosecurity Institute which has launched Biosecurity Week, aimed at highlighting the activities of all those involved in keeping New Zealand protected from invasive species.

Biosecurity Week is an annual fixture promoted by the NZ Biosecurity Institute, the networking organisation for people working in or involved with biosecurity. The week acknowledges those working in the sector as well as the work done among local communities and mana whenua to improve the health of the land and water.

The theme of this year's Biosecurity Week is 'Maintaining the Gains - Puritia te Aronga', which recognises the importance of tenacity in biosecurity.

Institute acting president, (at the time of this release) Dr Rowan Sprague, said maintaining the gains made previously is vital if New Zealand is to keep on top of its biosecurity issues.

Dr Sprague said while New Zealand's natural landscapes are being changed by invasive species, there are a number of community programmes across the country using a range of approaches which are having considerable success.

"As well as managing pest animals and plants, the biosecurity sector covers border control, animal and plant disease management, and freshwater and marine pests."

Dr Sprague said some hot biosecurity topics at present include the invasive seaweed *Caulerpa*, invasive freshwater clams, wilding pines, kauri dieback, and wallaby containment.

"As well as needing new technology like drones, and additional help from sniffer-dogs, the sector will always need people power."

Dr Sprague said over the week, members will come together to look at how research and technology can be best used to help people in the sector and communities continue to do their mahi to protect native flora and fauna, and productive industries.

"Every year Institute members spend thousands of hours controlling or managing the risks to the economy and the environment from the effects of invasive species.

"I would like to acknowledge their collective efforts and thank everyone for playing their part," Dr Sprague said.

Lone Stoat Meets Its End After Six-month Evasion

A male stoat that has been evading capture on Pōneke's predator-free Miramar Peninsula since December has finally been caught in mid-July after a six-month chase.

Volunteers from Predator Free Miramar found the stoat dead in its northernmost trap, at the top of the peninsula's ridge. "We've just been doggedly doing the mahi, rebaiting traps and trying to outsmart this little furry critter," said PFM founder Dan Henry. Although reinvasion of pests on the peninsula is a constant threat, its biosecurity systems are working as planned.

More Kiwi on Heaphy Track



There are more kiwi on the Heaphy Track, the feathered variety, that is, thanks to ongoing predator control.

DOC reported in mid-October that control work over 25,000 ha in the Heaphy Valley in Kahurangi National Park has resulted in growing numbers of birds and bats.

Notably, within the Department of Conservation managed area, great spotted kiwi/roeroa call rates have risen between December and December 2023. **More frequent calls represent a rising population of kiwi in the project area.**

Other bird species have also benefited from predator control including rifleman/titipounamu, robin/toutouwai, tui, weka, grey warbler/riroriro and tomtit/miromiro, which have all shown rising numbers.

Long-tailed bat/pekapeka activity has also shown a continuing upward trend from 2015 to 2024.

The Heaphy catchment has trapping around huts and has been treated with aerial 1080 every year and a half (on average) in the last 10 years.

DOC has also been carrying out weed control and monitoring in the area. The coastline has been surveyed for the aggressive coastal weed sea spurge, which was detected on the coastline in the area in 2020, with no further plants found.

From information provided by DOC October 15, 2024.



Timing is Everything: DOC Reports Best Results Ever

At the end of August DOC reported that its predator control programme was achieving its best results ever, due in part to improved timing for operations.

The programme protects native wildlife and forests on public conservation land.

DOC delivered 24 aerial predator control operations across 735,000 ha in the past year. Monitoring has revealed exceptionally good results from this work, with rats consistently reduced to undetectable or very low levels and stoats and possums effectively controlled. Mice were also routinely reduced to low levels, giving relief to native insects and lizards.

Peter Morton, DOC's predator control programme manager, says the improved results are in part due to changes to the timing of operations in areas where beech forest seeding (masting) last year caused a surge in rodent and stoat numbers.

"Previously, during beech masts, we timed operations for late winter and spring to protect nesting forest birds from predators. This generally worked well, but we'd get poorer results in times of heavy seeding such as in 2019."

A moderate beech mast occurred in 2023 affecting large parts of the South Island and Ruapehu.

"We tested new timings to avoid the 'food glut' when beech seed is on the ground and rodents have plenty to eat. This meant running operations either before the seed hit the ground or after it had gone, when rodents were hungry," says Peter Morton.

The changed timing saw predator control operations run in the 2023 summer before the beech seed fall in autumn, as well as the following summer and autumn after the seed had been eaten or germinated.



Mohua yellowhead in Blue Mountains, Otago. Sabine Bernert.

"We took a measured risk trialling this different approach, but it proved highly successful with consistently good results," says Peter Morton.

"Regular reviews using the latest research is an important part of the drive for continual improvement in predator control work. This new approach will stand us in good stead for the next big beech mast when predator numbers surge again."

DOC controls predators on a sustained, rotational basis at 67 forest sites across Aotearoa over about 1.8 million ha or 20% of public conservation land – on average over about 600,000 ha per year.

The programme uses the most effective predator control tools available, such as biodegradable 1080 toxin and large-scale trapping, to protect the highest priority populations of vulnerable native species and forests.

From an article supplied by DOC 28 August 2024.

Successful Kakī Breeding Season

DOC reported in mid-August that the release of almost 160 kakī/black stilt into the wilds of Te Manahuna/Mackenzie Basin has capped off another successful kakī breeding season.

DOC Twizel Senior Biodiversity Ranger Dean Nelson said 80 birds were released at Lake Tekapo/Takapō and another 78 into the Tasman Valley, with both releases taking place since the start of August.

Dean Nelson said this past season saw the highest recorded number of breeding pairs in the wild with 41 pairs producing eggs. Ten years ago, that number was just 17 pairs.

“It’s been a positive breeding season for kakī, but **they are still doing it tough in the wild as they are vulnerable to introduced predators.** On average, about 30 per cent of released birds survive to adulthood.”

“Extensive trapping takes place across the Mackenzie Basin, including through the Te Manahuna Aoraki Project and Project River Recovery programmes, with vital support from local landowners.

From the Department of Conservation, 13 August, 2024.



Kaki being released into the Tasman, 7th August 2024 - credit Liz Brown DOC.



SAVE THE DATE

International Symposium on Biological Control of Weeds 2026

New Zealand will host the 17th International Symposium on Biological Control of Weeds in Rotorua from 8-13 March, 2026.

The conference, which generally attracts around 200 international delegates, is held every four years.

New Zealand last hosted the conference in 1992 at Lincoln.

The symposium website for information and registrations is: <https://isbcw-rotorua.com/>



XVII INTERNATIONAL SYMPOSIUM ON
BIOLOGICAL CONTROL OF WEEDS
8-13 MARCH 2026 ROTORUA NEW ZEALAND

Rapid Growth for Weeds List

The list of weeds threatening New Zealand's native plants and ecosystems has grown, with the addition of 112 species to the latest edition.

Amongst the new entrants on DOC's List of Environmental Weeds in New Zealand 2024, are weeds increasing in distribution and invasiveness, such as Chilean myrtle, Bangalow palm, holly fern, purple-flowered iceplant, and the vine bomarea.

Like most environmental weeds in New Zealand, these species all originated as garden plants.

The new list also includes two seaweeds: undaria and caulerpa. Undaria is known as 'the gorse of the sea', while caulerpa was first found in New Zealand in 2021.

DOC Science Advisor Dr Kate McAlpine says New Zealand has an extraordinary number of exotic plant species – more than 25,000.

"The number of introduced plant species in New Zealand is ten times greater than the number of native species."

The new list comprises 386 environmental weeds, an 18% rise from the 328 weeds on the previous (2008) list.

While 112 of these weeds are entirely new additions since 2008, 54 species from the previous list were also omitted in this update.

The previous list only included weed species present on land administered by DOC, whereas the new list includes all environmental weeds irrespective of where they're found.

Plants are categorised as environmental weeds if they are established in the wild and have significant impacts in natural ecosystems.

The report also carries a warning about 'sleeper' weeds such as Himalayan wineberry and octopus tree.

"Sleeper weeds aren't on the list because they're not established in the wild, or at least not yet. But these are forecast to become fully invasive, with significant impacts on our native species and ecosystems."

Kate says climate change will only aggravate the weed problem.

"As the climate warms, many environmental weeds will be able to live in parts of New Zealand that were previously too cold. The disturbance created by extreme weather events also tends to favour invasion of environmental weeds.

Kate says **all land managers will find the list useful whether they're iwi, hapū, farmers, councils, community groups or site managers.**

"Deciding where to focus weed control efforts can be challenging – we hope this updated list of significant environmental weeds will make it easier."

From information provided by DOC, 21 August 2024.

Caution on Tomato Imports

In late August, Biosecurity New Zealand placed import restrictions on tomato seed imports from Australia, after the detection of tomato brown rugose fruit virus at two South Australian growing properties.

"We've stepped up our biosecurity requirements in response to the recent finds in South Australia," says Biosecurity New Zealand Deputy Director General Stuart Anderson.

"Imported seeds for sowing from Australia will now require testing for the virus prior to arrival in New Zealand, which is a requirement that is already in place for other countries where the virus is present.

"We have also temporarily suspended tomato imports from all Australian states except Queensland, where there is no evidence of the disease or links to the affected properties in South Australia."

Stuart Anderson says all our imported tomatoes from Australia currently come from Queensland and not South Australia.

"We're in close contact with our counterparts in Australia about what they've found and the measures they are taking, and we'll continue to monitor the situation closely.

"We're committed to ensuring New Zealand growers are protected, and that's why we've taken these steps already."

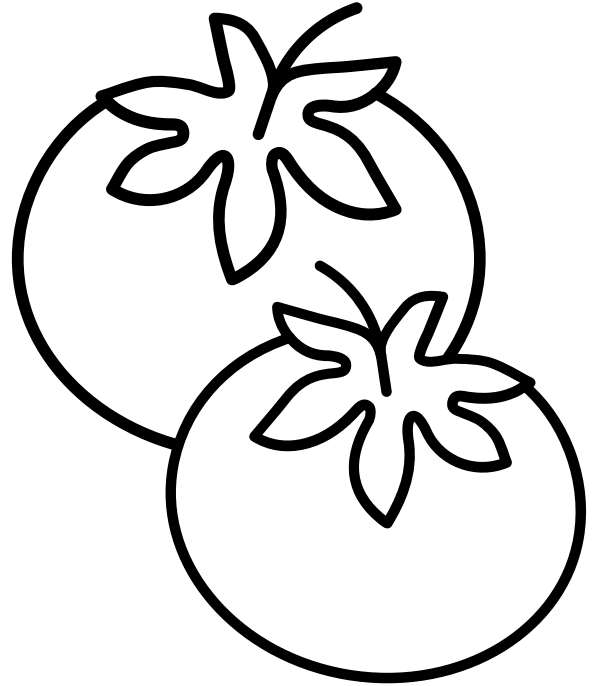
Stuart Anderson says the virus, which was first noted in the Middle East, has never been found in New Zealand, and affects tomatoes, capsicums, and chillies, causing yellowing and deformity in the host plants, but has no impact on human health.

On October 21 Lisa Winthrop, Biosecurity New Zealand Director of Import and Export Standards gave this update to Protect Magazine

We remain in close contact with our counterparts in Australia about what they've found and the measures they are taking.

We'll continue to monitor the situation closely. The import restrictions will remain in place until we have confidence about the distribution of the virus in Australia, confirmed by outcomes of the tracing and testing they are doing.

The virus has been detected on three properties in the Northern Adelaide Plains, all involving tomato production. There is no spread to any other part of Australia.



Listen to this

A selection of clips from the NZ Biosecurity Institute's ongoing Oral History project is now available in the members' section of the NZBI website. These clips are extracts from interviews carried out as part of the Institute's ongoing Oral History project. Most are stored in perpetuity with Archives New Zealand. The NZBI Executive Committee is considering ways of making these recordings more accessible to members.

Representative clips include:

Ray Clary, former Senior Biosecurity Officer, Pest Animals with Wellington Regional Council, based in Wairarapa, talks about manually formulating pest control bait pellets. Ray retired in 2012. He has been involved with pest animal control in the Wellington region and elsewhere for more than fifty years.

Ray talks about gun dogs, fumigation, getting the last rabbit, and what rabbits like.

Walter Stahel (29.12.1942 – 19.8.2020) talks about alligator weed control and the usefulness of weed mats. Walter was a Noxious Plants Officer, at the Bay of Plenty Regional Council. He retired in 2012. He began his biosecurity career in 1974 as a Rabbiter with the Hawkdun Pest Destruction Board in Central Otago.

Jack Powell (14.6.1925 – Nov 2013) talks about money for rabbit skins, cattle for rabbit control and farmers walking off the land. Jack began rabbiting in the 1930's. At the time of his retirement in 1985, he was a Senior Field Officer with the Agricultural Pest Destruction Council, dealing with Pest Destruction Boards throughout the country.



Zoe Battersby talks about her experiences as the wife of a pest controller and attending conferences. Zoe is the wife of Les Battersby, who was Supervisor of the Kaikoura Pest Destruction Board at the time of his retirement in 1989. He began his pest control career in the mid-1950's. Zoe is mother of Kevin Battersby also a pest controller.

The soundbites are available at: <https://www.biosecurity.org.nz/members/oral-history-audio-clips/>

PS - A word of warning

There was a lot of discussion about AI at NETS24, which was very exciting and stimulating, so some considerable time after the gathering, I thought I'd ask my copilot what he, she, it thought of NETS2024. I thought I'd make it simple.

Q: What was NETS2024

A: It seems like there might be a bit of confusion. NETS2024 hasn't happened yet! It's scheduled to take place from 24-26 July 2024 at the Ascot Park Hotel in Invercargill. Is there something specific you were looking for about NETS2024?

Q: yes. is the exclamation mark suggesting I should know better?

A: Oh, no, not at all! The exclamation mark was just a way to express enthusiasm and keep the conversation lively. **There's no expectation for you to know everything.** I'm here to help and make learning about events like NETS2024 more engaging. Is there anything specific about the seminar you're curious about?

Q: Was it a success

A: Since NETS2024 hasn't taken place yet, we don't have any results or feedback to gauge its success. However, based on the detailed planning and the strong theme of "Maintaining the Gains – Puritia te Aronga," it has the potential to be very impactful. Are you planning to attend or interested in the outcomes of the seminar?

