



New Zealand  
**Biosecurity** Institute

the magazine of the NZBI Summer 2016

# Protect

ISSN 1175-043X

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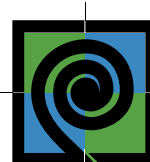
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New Zealand  
**Biosecurity** Institute

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

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The New Zealand Biosecurity Institute can be found on the web at [www.biosecurity.org.nz](http://www.biosecurity.org.nz)



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# No rest for the biosecurity staff

**There's a pretty good coverage across the entire biosecurity sector in this Issue.**

There's a success story about the hard-to-control, enigmatic and very smart rook that learns quickly, in which biosecurity staff have had to be even smarter.

Meanwhile wallabies aren't resting on their haunches in the south and neither are biosecurity staff. The pests seem to be jumping into view all over the lower south Island. This has biosecurity staff leaping about as well. There's an interesting story about the unusual damage bamboo causes and the attempts to mitigate this.

There's a warning about new biosecurity technologies which are likely to emerge in the future which will require a fair degree of public buy-in. Such breakthroughs are likely to challenge workers in the sector as science progresses and we pursue the Predator Free by 2050 goal.

There's good news about wilding pine control in the middle of the South Island with a significant boost in funding.

There's more on the good work being done between professionals in the sector and community groups across the nation, involving protecting native birds and preventing the spread of marine pests among other efforts.

There are items on interesting saves at the border as well as calls for public help with our work across the biosecurity spectrum.

CHRIS MACANN,  
EDITOR

## ADVERTISEMENT

**"Build a better mouse trap, and the world will beat a path to your door" is a saying frequently attributed to Ralph Waldo Emerson.**

In fact, whoever coined the phrase it was not him, and he did not intend his words to be confined to the manufacture of mouse traps. Yet an amazing 4,400 patents for mouse trap design have been filed with the US Patent office making the humble mouse trap the most frequently invented device in US history!

Despite this, the familiar spring-loaded neck-breaker and the pressure-sensitive pad loaded with a bait, on a flat base still remains the most popular design for both mice and (in a larger version) rats. It is cheap, generally effective, and even reasonably humane. What does affect the efficiency of the trap is in the details, for not all traps are equal.

Many cheaper brands are simply not robust enough. The spring is too weak, likely to injure but not necessarily to kill. Even if it is strong enough when first used, poor quality traps often lose tensile strength with use, giving them a short life span.



The problem can be further exacerbated if the trap is used in damp locations - in areas that are frequently washed or out of doors for example - for many traps will rust. The result may well be that a trap that seemed perfect when it was set up fails to even 'fire' when a mouse or rat walks over it a couple of months later. Some even bend the metal to fit into existing glue board stations, how cruel is that as you lose the power of the trapping device and strangle the rodent?

Then there is the problem of traditional baits such as peanut butter or cheese. These are prone to drying out, or being eaten by insects. The only solution is to regularly re-bait, which can be time-consuming if a number of traps are involved.

**Gorilla Traps**, marketed by Designed-2-Kill - D2K ([www.designe2kill.info](http://www.designe2kill.info)) range eliminate all these problems. The traps are built of high quality spring steel mounted on a tough plastic base. They will not rust, or lose strength over time. Available as stand-alone items, they also come with a variety of quality stations in both plastic and cardboard. These are designed not only to protect the traps from unwanted visitors such as birds or cats, and from accidental damage, for example from cleaning equipment, but also to enhance the attractiveness of the trap to rodents by providing an apparently safe burrow.

The problem of baits losing efficacy has been solved by creating a number of artificial baits. These have the smell of the real thing, but are actually inedible. However they will last for months, through rain and shine.

Finally, the traps can be fitted with a variety of devices that tell the operator when they have been set off. This is especially important if they are in hard-to-reach places, or if there are a large number of traps. A brightly coloured marker makes it easy to see that a trap has fired. Or traps can be fitted with 'beeper' or a radio transmitter that notifies a control panel or even a cell phone.

..... There is a "better mouse trap", and it is now available in New Zealand. ....

■ FROM THE NZBI EXECUTIVE

## A safe place to comment

The NZBI Executive met in Wellington on 10 November.

We discussed progress on the new website management system.

We are investigating ways in which appropriately delegated members can update relevant portions of the website instead of going through a single website manager. This will make the website more manageable and will be much easier to keep it immediate and up-to-date.

We are currently trialling a new financial and membership management system in the hope of simplifying these responsibilities for those responsible. This includes investigating a way of keeping the NETS registration process as painless as possible for registrations and for those managing the process on the website. This is the activity which takes up most time for the website manager each year.

In November we have produced a press release expressing the disappointment at Lincoln University's decision to drop bioprotection and biosecurity majors from its courses. This resulted in an interview with President Darion Embling on Radio New Zealand.

We also expressed our agreement with the government decision to turn a cargo of palm kernel away from our shores as it is pest free a status could not be proven at the port of origin.



The Executive agreed that it is important to make comments where appropriate, as there is no real independent organisation with oversight of the entire biosecurity sector.

The Executive views the Institute as the appropriate organisation to fulfil this need and to provide a safe place for all members to express their views.

The next Exec meeting will be a phone conference in March.

THE NZBI EXECUTIVE COMMITTEE

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## Biosecurity sector disappointed at Lincoln University decision

■ BY CHRIS MACANN

The New Zealand Biosecurity Institute has expressed disappointment at Lincoln University's decision to drop its biosecurity and bioprotection majors for its science degrees.

Institute President Darion Embling said Lincoln University's announcement in October flies in the face of the government's clearly stated direction for biosecurity for the next decade, announced this month in the Biosecurity 2025 direction document.

"This is quite significant, with capability and learning key to this new biosecurity strategy," Mr Embling said.

A major thrust of the direction is to ensure by 2025 that at least 75 percent of adult New Zealanders understand biosecurity and why it's so important to New Zealand.

"Lincoln's decision seems to go in the opposite direction," Mr Embling said.

"If the strategy is to be at all effective the government needs to work with the university to encourage the availability and attractiveness of biosecurity-related courses, and to demonstrate real career pathways given that this direction strategy has been highly promoted as a collaboration with all sectors of biosecurity.

"Vital sectors to the success of the strategy are education and science," Mr Embling said.

Biosecurity 2025 also has as the explicitly stated aim of being able to identify 150,000 skilled people who can be quickly drawn on to support responses to biosecurity incursions.



***"It is important for the Institute to make this point strongly because there is no other independent group watching the biosecurity sector generally."***

*~ Darion Embling*

"These ambitions would suggest that biosecurity is looking like a good career path for those looking at a course of study.

"Given the government's clear commitment to biosecurity and the associated public awareness and skills involved, Lincoln's decision seems to be rather premature."

Mr Embling said the Institute was prompted to comment due to discomfort with Lincoln's decision expressed by some members.

"It is important for the Institute to make this point strongly because there is no other independent group watching the biosecurity sector generally," Mr Embling said.

## Institute pleased ship turned back

■ BY CHRIS MACANN

The NZ Biosecurity Institute says it is pleased a ship carrying the livestock food supplement palm kernel expeller (KPE), has not been allowed to discharge its cargo in New Zealand.

Institute President, Darion Embling said he understands part of the ship's cargo came from an unregistered facility in Malaysia.

"This means the place of origin can not be relied upon when it comes to assuring New Zealand officials that the cargo is free of unwanted organisms.

"We understand some attempts were made by the importer to have the cargo treated in New Zealand after the fact.

"This has not been permitted and it sends a strong and most likely costly message to those involved that we take border biosecurity seriously.

"We are pleased at the decision because it shows the Ministry of Primary Industries is serious about sending that message around the world."

He said a recent arrival of fodder beet seed which also contained the pasture pest velvet leaf shows how easy it is for unwanted organisms to get through despite apparent checks and balances.



# Great white butterfly eradicated

The invasive pest great white butterfly has been eradicated from New Zealand in a world-first achievement, according to Primary Industries Minister Nathan Guy and Conservation Minister Maggie Barry.

"This is the first eradication of an unwanted butterfly population in the world and is another impressive example of New Zealand's innovation and skill in removing pests," Ms Barry said in November.

Great white butterflies were first seen in Nelson in 2010 and the DOC-led joint agency eradication effort ran for three and a half years.

"It's now been two years since any have been seen, and we're confident we can declare them eradicated," Mr Guy said.

Community involvement in the eradication effort has been crucial to its success.

"A \$10 bounty for dead butterflies was a powerful incentive during the spring school holidays in 2013, with children netting 134 of them," Ms Barry said.

“ This is the first eradication of an unwanted butterfly population in the world. ”  
- Conservation Minister, Maggie Barry

"Another innovation was the use of a modified garden ornament to attract butterflies to be caught in a net."

DOC rangers carried out more than 263,000 searches of around 29,000 properties in the region for the butterfly and its eggs, caterpillars and pupae.

"People also kept watch for the butterflies, reported finds and allowed repeated searches of their gardens – all in all, without the help of the people of Nelson the butterfly may well have eventually spread across the country," Mr Guy said.

The great white butterfly is a major pest of brassica crops. Caterpillars feed voraciously in groups, rapidly reducing host plants to a skeleton. It is a strong flier and would have spread through New Zealand, posing a major threat to 79 native cress species, especially the 57 at risk of extinction. It would also have ravaged commercial crops and home gardens.

An independent assessment for DOC estimated widespread butterfly infestation could cost the country \$43 million to \$133 million a year in control costs.

"Thanks also go to Horticulture New Zealand and Plant and Food Research which provided funding and research assistance and AgResearch for research support funded through the Better Border Biosecurity research collaboration," Mr Guy said.



*Pieris brassicae (Photo DOC)*

## BIOSECURITY BRIEF

### Hawke's Bay helps Canterbury rivers

The Hawke's Bay Regional Council's Works Group has designed and constructed a purpose-built weed boat and trailer for Environment Canterbury, modelled off similar weed boats used in Hawke's Bay rivers.

The boats which are mainly used in drains and slow flowing rivers have a cutter bar on the front and a small motor which powers hydraulics which drive the paddle wheels and the cutter bar.

ECan already has a large weed boat, but needed a smaller one.



### Far North charter aims to reduce marine pest impacts

The Far North Marine Biosecurity Charter is a joint industry and agency response to managing marine pests in the Bay of Islands, Whangaroa and Mangonui areas.

It was formally signed recently by representatives of Far North marinas, recreational boaties, Far North Holdings Limited and the Northland Regional Council.

David Sinclair, the regional council's Deputy Chairman and a keen recreational yachting, said the charter recognises signatories' shared concerns over the threats marine pests pose to Northland's environment and marina industry.

"This new charter recognises the collective leadership shown by Far North marinas in our shared bid to lessen the impact of marine pests, including what can be done to reduce their spread."

"While unfortunately fanworm is now established in Whangarei Harbour, 14 other Northland harbours and estuaries remain fanworm free and council is very supportive of marinas' efforts to help spread the word about the importance of keeping a clean hull."

Northland currently receives over 500 international vessels annually, with more than 1700 domestic craft also visiting.

Councillor Sinclair said the region already leads the way in attempts to prevent marine pests invading its remaining harbours and this year aims to survey more than 1500 hulls in an effort to prevent further spread.

"Over the past several years we've also researched and secured new control devices such as an inflatable vessel quarantine facility and had new treatments for marine pests such as the use of chlorine approved by the Environmental Protection Agency."

The region is also investigating novel approaches to marine pest control and has been awarded science grants for research.

"We've also joined forces with other regions and a 'Top of the North' grouping including Northland, Auckland, Waikato and



*Joint response... Pictured at the signing of the new Far North Marine Biosecurity Charter are, from left, regional council deputy chair David Sinclair, Bay of Islands Marina general manager Chris Galbraith, Whangaroa Marina Trust manager Pete Sehmb and Kerikeri Cruising Club vice commodore Cheryl Rymer. A new biosecurity charter recognising the collective efforts of Far North marinas to reduce the impacts of marine pests has been signed at Opuā.*

Bay of Plenty share a common website—[www.marinepests.nz](http://www.marinepests.nz)—and information and advice to travelling boaties aimed at reducing the risk of marine pest spread, sharing resources and allowing for consistency of requirements."

Cr Sinclair said despite all the work that has been done, some significant challenges remain.

"But as a council we want to keep an open mind as to how our role as a regulator can assist industry and others but keep the impacts of marine pests in Northland as low as possible".

One proactive way under investigation was the use of a new tool called a 'Pathways Plan' under the Biosecurity Act to do this.

"Rather than trying to tackle the pests once they have arrived here, we want to manage the pathways or vectors by which these pests are spread."

"We're looking at introducing rules that set limits for the amount of biofouling vessels can have on their hulls."

The rules would be part of a Regional Marine Pathway Management Plan for Northland developed under the Biosecurity Act.

The Pathways Plan—which is still being developed—would focus on the human activities that may transport marine pests from one place to another, rather than the pest species themselves. It's expected to be made available for public consultation next year.

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“ Rather than trying to tackle the pests once they have arrived here, we want to manage the pathways or vectors by which these pests are spread.”



# Biosecurity 2025 Direction Statement launched

The newly launched Biosecurity 2025 Direction Statement will shape the long-term future of biosecurity in New Zealand, said Primary Industries Minister Nathan Guy at its launch on 22 November.

"Biosecurity 2025 will guide New Zealand's biosecurity system over the next decade. It provides a shared direction to ensure we can cope with increased challenges such as increasing trade, more complex markets and supply chains, and rising tourist numbers.

Mr Guy says Biosecurity 2025 is the culmination of nearly two years of work, drawing on the input of people involved in biosecurity across New Zealand.

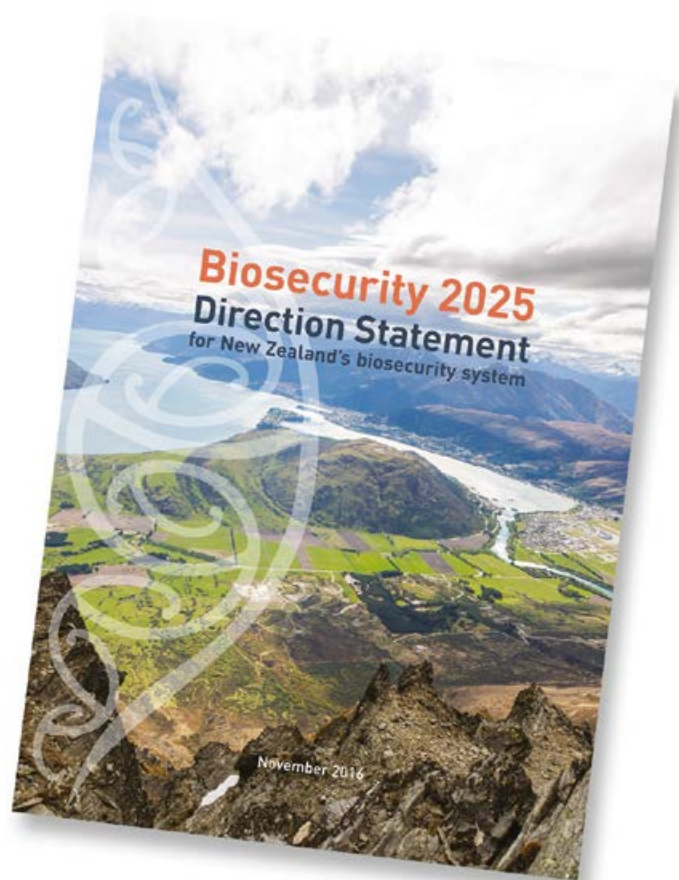
"What we've got now is a roadmap to achieve important goals around raising public awareness of biosecurity, getting people to take action, making smarter use of information and having the best tools, rules and processes.

"The first of the five key strategic directions, 'A biosecurity team of 4.7 million' is about participation on a grand scale, with every New Zealander and every New Zealand business becoming part of the team.

"This document sets ambitious targets, including ensuring by 2025 that at least 75 percent of adult New Zealanders understand biosecurity and why it's so important to New Zealand."

"Implementation of the direction statement will require collaborative input across the entire biosecurity system. This will involve central and regional government, iwi, industry partners, community groups, and other biosecurity system participants.

"We have identified some important initial actions but there is still a lot to decide about how to reach the shared goals. One of the first steps will be to establish a joint steering group with representatives of the key biosecurity players to begin this work.



"Another step will be the development of an engagement plan to increase participation right across the biosecurity system."

At the launch forum Mr Guy presented Dr John Hellstrom, one of three peer reviewers of the strategy, with the inaugural Minister's Award for Biosecurity, recognising a lifetime of outstanding contributions. Among other roles, Dr Hellstrom led the development of the original 2003 Biosecurity.

### Other targets to be reached by 2025 include:

- Having 90 percent of relevant businesses actively managing pest and disease risks.
- A publicly-accessible network that enables electronic access to organism data held by central government agencies, regional councils and Crown research institutes.
- Public and private investment of at least \$80 million in science for biosecurity, with at least 50 percent of the investment focused on critical biosecurity areas.
- Identifying 150,000 skilled people that can be quickly drawn on to support responses to biosecurity incursions.



# Rook Round Up and a bit of history

Greater Wellington Region Council has reported the most successful rook control season in the region recent years.

The work season wrapped-up at the beginning of December with a total of 110 known rookery sites inspected. This year 83 nests at these sites were treated with only 33 containing eggs or chicks. The remaining 50 empty nests would have been built by male birds that failed to attract a mate. The programme remains on track to achieve eradication of rooks in the Wellington region by 2025.

"We have the rook-free greater Wellington target of 2025 in our sights," said GWRC Biosecurity Officer Steve Playle.

"Ten years sounds a long time but that's only ten more opportunities to round them all up. We'll be hoping to make another big dent in numbers next year and we are always keen to hear from anyone who believes they have rooks on their property."

Severe weather in recent years has had an impact on the eradication programme. Unseasonably severe winds during the 2014 and 2015 breeding seasons saw nests destroyed and the birds dispersed.

"We weren't quite sure what we would be dealing with this year. The last two seasons have been extremely windy and we couldn't undertake any control through September and October, this pest bird's nesting and breeding season," Steve said.

"We've done a thorough job of seeking out the nests, and again had the support of local landowners and agricultural contractors."

This pest bird was introduced to NZ around 150 years ago. By the 1970's the national population had increased to tens of thousands of birds that were having a significant impact on arable crops and pasture quality. Large groups can decimate precision planted crops such as maize, or peas. Regional councils around the country began control programmes that have reduced numbers significantly. Today isolated pockets of rook populations remain. GWRC works with neighbouring regional councils to monitor and control this pest bird.

"Our records show that in the early 1980's we were finding twenty or so nests, with a peak of nearly 900 in 1994. We got much better at seeking out these secretive pest birds and keeping a track on them. These pest birds are smart – we got smarter pretty quickly!"

Each year the GWRC Biosecurity Officers revisit known sites and ask for the public's help to identify any more. In 2016 three rookeries reactivated and three new ones were identified.

"Our data is comprehensive and our processes are streamlined. Finding rook nesting sites takes information and knowledge - and treating them is



*The programme remains on track to achieve eradication of rooks in the Wellington region by 2025*

a fine art. "It's not possible to ask landowners to manage control themselves. If not handled carefully these birds will disperse to more remote locations which is the last thing we want."

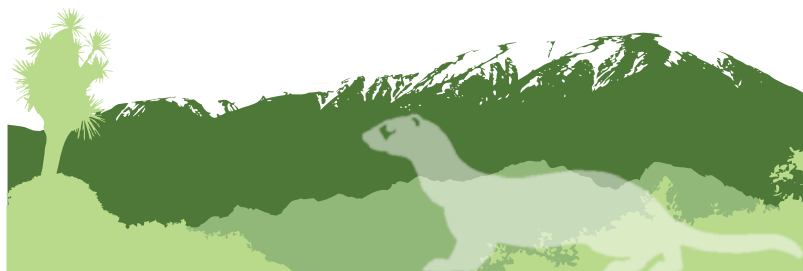
■ FROM A REPORT PREPARED BY GREATER WELLINGTON REGIONAL COUNCIL, 8 DECEMBER 2016

## BIOSECURITY BRIEF

# Tutsan awareness

An awareness campaign has been launched by Waikato Regional Council, urging farmers to protect their properties from the invasive pest plant tutsan in response to the recent rapid spread of the pest plant through western Waikato. It had been held in check by a leaf rust between the 1970s and 1990s but is on the increase again.





### Community pest control in Otago

A volunteer effort in the Makarora Valley adjacent to the Haast Pass Highway near Wanaka to help control predators which threaten native birds recently received a \$23,395 boost from the Otago Regional Council's Environmental Enhancement Fund.

The money has gone to the Central Otago-Lakes branch of the Royal Forest and Bird Society, which has a trapping programme planned to coincide with the Department of Conservation Battle for Our Birds programme in Mount Aspiring National Park.

Council chief executive Peter Bodeker said the funding covers rat or stoat traps and accessories, possum traps, possum mesh cage traps, DoC traps and boxes, tree mounts, and rodent detector cards.

The branch said it had been pursuing predator control activities in the Makarora area for the past 20 years, and was at a stage where it could

expand its predator control programme relatively quickly using its existing volunteers.

These additional resources will tie in with DoC's current pest control activity in Mount Aspiring National Park and the Makarora catchment which is part of the Battle for our Birds initiative, targeting rats, stoats, and possums.

The branch said its volunteers will focus on braided river systems as these are priority ecosystems and habitats for a range of flora and fauna, including several endangered bird species.

“ Grants from the fund were for capital items and were not designed to fund operations.

~ Peter Bodeker, ORC

”

Meanwhile, the Wakatipu Islands Reforestation Trust has received \$3816 from the fund to help maintain the Pig and Pigeon Islands, reserves gifted by the Crown during Queen Victoria's reign in 1884 for use and enjoyment by the people of Queenstown.

The islands are free from introduced animals such as rats, mice, possums, stoats, and weasels; however stoats have occasionally made the swim from the lake shore.

The trust does weed control, track maintenance, and hut maintenance on the islands and the ORC grant will allow it to buy various replacement tools and implements to continue this work.

Mr Bodeker said the fund continued to attract innovative proposals from community organisations to enhance Otago's biodiversity. However, he said grants from the fund were for capital items and were not designed to fund operations.

■ FROM A REPORT PREPARED BY OTAGO REGIONAL COUNCIL, 20 OCTOBER 2016

#### BIOSECURITY BRIEF

### Good work on Waikato's east coast marine pests

Boaties using Waikato's coastal waters have been praised for their efforts to keep marine pests away from the region's eastern coast.

Checks on more than 660 vessel hulls have shown virtually no sign of marine pests such as the fanworm *Sabella* among others, at a range of sites on the east coast of the Coromandel peninsula.

Apart from the already known presence of the seasquirt *Styela* in one bay, no other marine pests were found anywhere else.





# Fighting budget for Canterbury wildings



**A budgeted funding boost of \$1.87 million to help tackle wilding conifers in central Canterbury, was detailed by the government in November.**

The funding will be used to control the spread of wildings in Craigieburn (\$1,641,600) and Porters (\$227,064) and protect the adjoining Arthur's Pass National Park.

"Both of these areas are under threat from the spread of wilding conifers which infest farmland and natural wilderness areas," said Primary Industries Minister Nathan Guy.

"They now cover more than 1.8 million hectares of land throughout New Zealand and this number is growing every year. It is much better to tackle this pest now before the cost of eradication rises even further.

"In this year's Budget the Government committed an additional \$16 million to wilding control over the next four years because of the threat they pose to our ecosystems, land and farms."

The Craigieburn area covers 53,750 hectares and the adjacent Porters area covers 189,630 hectares.

The new Crown funding for these areas is supported by significant investment from community trusts, private land occupiers, Department of Conservation and Environment Canterbury.

The Budget 2016 funding builds on an existing estimated nationwide control spend of over \$11 million each year.

Environment Canterbury announced later in the month the way new funding for wilding conifer control would be allocated and administered in the region.

Since the Government announced in June that \$16 million would be allocated to a national four-year programme, a Wilding Governance Group has been formed to provide oversight of an expanded control programme.

The Group has allocated just over \$5 million nationally to the programme for 2016/17, of which nearly \$3 million goes to Canterbury.

Environment Canterbury Chief Executive Bill Bayfield said this allocation level illustrates the extent of the problem in the region.

"There is much to be done to protect farmland, water yield and iconic landscapes from this invasive pest," he said. "With another dry summer in prospect, reduced water yield caused by wildings becomes an issue, as does increased risk of fire."

Graham Sullivan, Environment Canterbury Regional Leader Biosecurity who sits on an operational advisors' group to the Governance Group, said prioritisation of infestations would guide control work in the first four years.

*The Right Tree in the Right Place: The New Zealand Wilding Conifer Management Strategy provides a framework for central government, local government, forestry and farming industries, landowners, researchers and communities to work together to reduce the negative impacts of wildings. Prevention is the best form of management. Removing young seedlings now, before they start producing seeds, costs less than \$10 per hectare, but removing mature trees can cost over \$10,000 per hectare.*

"Like other councils in affected regions, Environment Canterbury acts as co-ordinator on behalf of the Government," Mr Sullivan said.

"Over the next year we will implement six control programmes, with total combined funding of just under \$4 million covering nearly 900,000 hectares, as well as participating in a large Waitaki programme with Otago."

The areas to be covered are all inland and extend from Craigieburn in North Canterbury to Godley and Four Peaks in the south. In order of total funding allocated (size of management area in brackets) the six priority areas are:

- Craigieburn, North Canterbury - \$2m (53,750)
- Lewis, also North Canterbury around Hanmer, \$581,000 (295,900)
- Hakatere, Mid Canterbury, \$383,000 (180,260)
- Godley, Mackenzie Basin, \$379,000 (137,260)
- Porters, North Canterbury, \$366,000 (189,740)
- Four Peaks, South Canterbury, \$148,000 (40,140)

Graham Sullivan said this co-ordinated national approach was an encouraging start towards containing the spread of Canterbury's worst pest plant.

"Last year \$1.2 million was spent on wilding control in Canterbury and just under \$12 million nationally," he said.

"However, this was insufficient to deal with the scale of the issue. Wildings are spreading at about 90,000 hectares a year, equivalent to nine average-sized high country farms.

"The current initiative is the first phase of a programme that will hopefully lead to a sustainable long-term management plan," Mr Sullivan said.

"First we are looking for increased prevention and control; reducing the area currently invaded; co-ordinated, more cost effective control and prevention; information gathering, and early control action and support.

"Early action to prevent seeding is crucial if we are to get on top of the problem," Graham Sullivan said. "Landowners, community groups and government agencies all have an important part to play if we are to be successful - both now and in future".

Neighbouring Otago has been occasionally accused of being slow to recognise the threat of wilding pines. This year however the Otago Regional Council's 2016-17 Annual Plan provides for the council making a contribution of \$100,000 towards the control of wilding pines in the Central Otago and Queenstown Lakes districts.

## Wilding conifers:

- Left uncontrolled, are predicted to spread across 20% of New Zealand (the equivalent of Canterbury and Marlborough combined) within 20 years, costing the economy more than \$1.2 billion
- Cover nearly 6 % (1.8 million hectares) of the country's total land area
- Cause the loss of native ecosystems and species extinctions and threaten large, open mountain landscapes that define the South Island high country
- Impact historic and tourism landscapes, reduce water yields from catchments and increase wild-fire severity
- Can increase the cost and complexity of developing pasture and commercial forestry.



## BIOSECURITY BRIEFS

### Chilean Needle Grass

Environment Canterbury this summer reminded farmers that the spread of the invasive pest plant Chilean needle grass is a potential problem for all parts of the region.

About 350 hectares of Canterbury is infested. Known sites were confined to North Canterbury until last year, when an infestation was identified to the west of Christchurch.

Hawkes Bay Regional Council has also launched an awareness campaign. In Hawke's Bay, CNG is found on approximately 170 properties, covering around 600 hectares.

Throughout New Zealand about 15 million hectares of land is suitable for this plant to grow.



### Bamboo in Wanganui

There being no pandas in Wanganui has meant Horizons Regional Council has had to remove bamboo without a natural predator. The council has begun removing bamboo plants from one of its parks to help protect the park's stopbanks.

The bamboo has grown near the stopbanks for a number of years and is now becoming an issue for the integrity of the stopbanks. Bamboo has an invasive rooting system. Bamboo grows rhizomes, which are stems running underground horizontally. They strike new roots out of their nodes, down into the soil and up to the surface. When the rhizomes die they leave a hollow tube in the soil structure which can cause problems for the stopbank during a flood.



# Funding for wallaby targeting

Otago regional councillors this summer have approved funding of \$273,000 for a dedicated search-and-destroy and surveillance programme to step up targeting the reduction of wallaby numbers in the region.

ORC chief executive Peter Bodeker said the number of confirmed sightings and kills of wallaby, both south of the Waitaki River and within Otago, is on the increase.

Mr Bodeker said the wallaby population south of the Waitaki has grown at a faster rate than anticipated, resulting in increased pressure being put on the regional boundary with Canterbury, as the animals spread out to seek new territory.

As a result, ORC staff will work closely with Environment Canterbury to co-ordinate control programmes on the boundary.

The approved control programme is designed to prevent a breeding population from establishing in Otago.

Mr Bodeker said ORC would operate the programme collaboratively with community and relevant agencies, who would offer 'in-kind' support, including cost-sharing for helicopter hire for aerial surveillance, regular downloading of data captured on ORC-owned remote sensing cameras, and provision of manpower to support ground-based search operations.

Otago's environmental monitoring and operations director Scott MacLean said landowners had been supportive of this approach and some had already offered assistance which would be taken up as required.

"We really appreciate this community support, because without it we would be unable to mount any kind of effective control programme," Mr MacLean said.

Recent signs of wallabies emerging near Alexandra and the shooting of a wallaby at

Kyeburn, areas well-away from the frontier with Canterbury, has ORC worried they may be being intentionally released. Wider sightings around Otago point to a mixture of natural migration and release.

ORC is currently working closely with a contracting firm survey the extent of the problem, which will involve camera surveillance and education with farmers. Field days will be held over summer, and ORC staff will be on the ground to monitor areas where the wallabies have been seen.

"We need help from farmers and other residents south of the Waitaki River to be our eyes and ears on the ground," Mr MacLean said.

"We will work closely with them with the goal of eradicating this pest.

Next door the Canterbury Regional Commission (Environment Canterbury) welcomed the Otago announcement.

"Wallaby don't respect borders," the commission's chief executive Bill Bayfield said.

"The integrated programme we already have in place will be enhanced by this funding so we can ramp up our efforts. The wallaby aren't resting on their haunches and neither can we – ongoing effort will be needed to contain their spread."

Graham Sullivan, Environment Canterbury Regional Leader Biodiversity, said the two regional councils were already collaborating on wallaby surveillance, control and data sharing.

"Our field staff are working together and training together," Mr Sullivan said. "This and the extra funding will help us meet the strong community expectation that wallaby spread will be contained.

"We are also looking at the potential for different approaches to containment through the current review of the Canterbury Regional Pest Management Plan and a national programme also involving Bay of Plenty Regional Council."

Meanwhile, further south the discovery of a live wallaby in a city backyard in Invercargill has raised concerns that people don't understand the risk these pests pose to the region. Officials suspect it may have been a surviving joey from a shot animal.



### Wallabies are pests

Wallaby are an "unwanted organism" under the Biosecurity Act and are identified as pest animals in the Pest Management Plans of both Canterbury and Otago. It is illegal for people to keep, capture or release wallabies elsewhere. Wallaby compete with stock for pasture and can damage crops and trees. They can easily adapt to changing habitat and can thrive in many environments from forests to open country.



## Biosecurity Briefs

### Fruit fly stopped at the border

Ministry for Primary Industries staff intercepted four Queensland fruit fly larvae at Wellington airport in November, stopping the dangerous pest from making a home in New Zealand.

The larvae were found earlier this month in an undeclared mandarin carried by an Australian passenger arriving from Melbourne..

A quarantine officer detected the fruit when the passenger's bag went through biosecurity x-ray machine. Another officer discovered insect damage on the mandarin and pulled the skin off, finding the larvae nestled inside.

So far this year, MPI staff have made 11 fruit fly interceptions at the border.

MPI checks all produce seized from arriving passengers for signs of pests or diseases. It also checks organic material disposed in MPI amnesty bins at airports and ports.

The Australian traveller received a \$400 fine for failing to declare the mandarin.

### Redback spider in Northland

The Northland Regional Council reports there is little risk to the public after the discovery of an Australian redback spider at Paparoa; the first confirmed Northland finding in more than 25 years.

The mature female Australian redback was handed into Northland Regional Council staff in Dargaville.

The Ministry for Primary Industries confirmed the spider was indeed a redback which is established in other parts of New Zealand, and the Northland specimen most likely originated from one of those existing populations.

The larger female spiders are responsible for almost all cases of redbacks biting humans, although it's rare for them to do so and usually only happens if they are disturbed or trapped in clothing. The regional council's role with redbacks is limited to any biosecurity risks they might pose.



### Super sniffer-snooper

The Ministry for Primary Industries hopes a new breed of detector dog will produce its best biosecurity sniffers ever.

MPI detector beagle Clara gave birth to 3 male and 3 female puppies in November. The sire was Morley, a harrier hound. Both dogs work for MPI at airports and ports to sniff out food and plant materials that pose biosecurity risk to New Zealand.

It's the first time anyone in the world has crossed a beagle and a harrier for detection work and we have very high expectations for this super-breed, MPI says.

The idea is to combine the height of the harrier with the proven biosecurity qualities of the beagles we have been breeding for nearly 20 years.

The new dogs will be about the size of a Labrador. Their extra height will make it easier for them to sniff backpacks carried by travellers or airport baggage stacked on trolleys."

MPI started using harriers as detector dogs last year. It has employed beagles in this role since 1996.





### Bounty offered for 'wanted' bird

In November MPI posted a \$1,000 reward for Bay of Plenty residents who report sightings of the aggressive pest bird, the red-vented bulbul.

It's not a bird we want in the Bay of Plenty with its extensive kiwifruit industry and other horticultural crops. In addition, it competes aggressively with native birds for food and is known to chase and attack them.

A single red-vented bulbul bird was found and removed near Te Puke earlier in the year. The Ministry also received a report of a single bird being spotted near Katikati.



In recent years MPI has eliminated small populations of the bird from areas in Auckland. Although red-vented bulbuls are established in Australia and on some Pacific islands, they are not likely to have flown to New Zealand but it's possible they have stowed away on large-sized sea vessels.

### Live crabs stopped at border

A Ministry for Primary Industries quarantine officer was shocked to discover eight very large crabs were still alive when he removed them from an international passenger's chilly bin.

The passenger had purchased the crabs from a local market in Samoa and declared them as food upon arriving at Auckland Airport earlier this month.

They were individually wrapped in thin plastic. The officer emptied the chilly bin and noticed one of the bundles move.

The crabs were denied entry visas.



### Potato industry joins GIA biosecurity partnership

The potato industry has become the thirteenth industry partner to join the Government Industry Agreement biosecurity partnership. The potato industry joins Vegetables NZ, TomatoesNZ, Kiwifruit Vine Health, Pipfruit New Zealand, New Zealand Pork, New Zealand Equine Health Association, Onions New Zealand, the Forestry Owners Association, The New Zealand Avocado Growers' Association, New Zealand Citrus Growers Incorporated and the Ministry for Primary Industries under GIA.

### Mobile biosecurity x-ray machines

The Ministry for Primary Industries announced in November that it will introduce two new mobile biosecurity x-ray machines this summer to help keep fruit fly and other pests out of New Zealand.

The purchase follows MPI's introduction of a new mobile x-ray last year to screen the bags of cruise ship passengers arriving at North Island ports.

"The additional mobile units give MPI greater flexibility to wheel out x-ray screening for fresh fruit and other biosecurity goods across the whole country.

They'll go to where the action is. For example they will provide backup for fixed biosecurity x-ray units at airports and Auckland's International Mail Centre.

MPI currently owns and operates 28 fixed x-ray units for baggage scanning at international airports, military bases and the Auckland International Mail Centre.

## Tread carefully with GE pest control

■ FROM AN ARTICLE BY ISAAC DAVISON IN THE NEW ZEALAND HERALD, OCTOBER 3, 2016.

The Government has been told it is likely to need a genetically engineered solution to reach its ambitious pest-free New Zealand goal and that it should expect some staunch opposition from the public.

New Zealand scientists have been tasked with coming up with a breakthrough by 2025 which is capable of eradicating an entire species of mammalian predator.

It is part of a larger goal to exterminate all rats, stoats and possums from New Zealand by 2050, which was announced by the government in July.

Papers released under the Official Information Act show that officials are concerned about both finding a scientific "silver bullet" and whether the breakthrough will be publicly acceptable.

Such an ambitious policy could require novel methods, including genetic solutions, the Department of Conservation said in a business case for the predator-free policy.

Scientists around the world are looking at a range of potential pest control methods which involve varying levels of genetic modification or

engineering. One of the possible solutions is "editing" an animal's genes to instil infertility throughout an entire population.

In a Cabinet paper, ministers were warned that genetically-engineered pest control could be controversial in New Zealand.

"Any science breakthrough in predator control must be both effective in the field and broadly acceptable to the community," officials said.

"Some iwi may be sensitive to issues where genetic solutions are involved. Such proposals may attract adverse comment from some iwi and other community sectors concerned with scientific work related to genetics."

Conservation Minister Maggie Barry said genetics was the "next frontier" for pest control.

She expected some backlash, but she did not believe that the issue of genetic modification or engineering was as sensitive when it came to eradicating pests or disease.

"Yes it is unpopular with a lot of people. I wonder whether that is something people feel more keenly when it's about food, and a little bit less keenly when it's about killing a mosquito that spreads a virus that causes so much misery."

Any breakthroughs would have to be tested against public opinion, she said.

“Any breakthroughs would have to be tested against public opinion.

~ Conservation Minister Maggie Barry

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Ms Barry also emphasized that genetic solutions were “some way off”. She pointed to other pest control technologies which were already showing promise, including self-setting traps and the use of audio recordings of baby rats to lure stoats.

Conservation biologist James Russel, from the University of Auckland, said scientists were now able to identify “the entire genetic architecture” of some species.

“That gives us great potential to minimise risk by being very specific to that species,” he said.

“The challenge we have is translating that from the lab to the real world,” he said.

The background papers to the Predator Free NZ policy also underlined the uncertainty in depending on an as-yet-unknown scientific breakthrough.

“The predator free goal is dependent on breakthrough science... but research outcomes are very uncertain”, a Cabinet paper from July says.

Officials noted that a New Zealand consortium spent 13 years searching for a possum biocontrol, at a cost of \$30m, without any breakthrough.

## Predator Free NZ

- Govt has set goal of eradicating all mammalian predators by 2050
- By 2025, it expects to have made a scientific breakthrough that will kill off an entire species of predator
- Rats, stoats, and possums kill around 25 million native birds a year
- \$3.3 billion cost to the economy and primary sector a year.

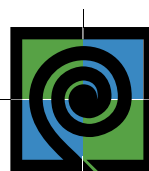
## The tail

### What the ??? - it's a wallaby

An Invercargill resident was shocked recently when she discovered a wallaby in her neighbour's property was upsetting her dog. The neighbour was unaware of the unexpected visitor and didn't know where it had come from. The wallaby was young and reasonably tame, so it is possible somebody had been keeping it as a pet and it had escaped.

Environment Southland commented that hunters may have shot wallabies further north and discovered a joey in a pouch, which they have then brought home to keep as a pet, without realising the implications. SPCA Southland reported that the wallaby was one of the more unusual calls they had received.

The offender is now happily ensconced in a secure wildlife park in South Canterbury which accepts orphaned animals.



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