



New Zealand
Biosecurity Institute

the magazine of the NZBI

Summer 2014

Protect

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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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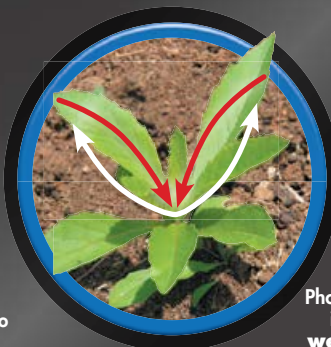
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Our “everydays” make a great read

■ EDITOR’S NOTE

In this issue we meet the extreme weeders and the ingenious adaptations they have made to carry out moth plant control on Motutapu Island.

As well we celebrate the achievements of a cheerful army of weekend warriors in Canterbury who have won weedbusting awards.

We also learn of a new immigrant from Japan who might be able to help control a problem plant, and we hear the plight of the guava moth whose sex drive just may be its downfall.

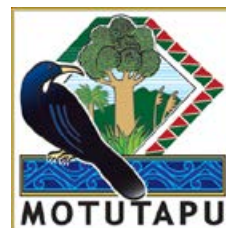
There’s also lots on law and order, and more than a few accounts of deception and smuggling.

There’s heart-warming stories of people getting together and doing good deeds. There’s also plenty about government agents at work (the human and insect kind). In fact it’s got all the ingredients of a great holiday page-turner.

Read on for stories of “saves” at the border, of centipedes on a plane, of weasels hiding amongst tyres and snakes masquerading as tea. Of course all these tales are just part of the everyday for members of the Institute.

Thank you all for your contributions to Protect this year.

Chris Macann,
Editor



Pets not pests

■ FROM THE EXECUTIVE

It’s been another busy year for the biosecurity sector and for the NZBI Executive.

Institute members this year, sent a clear message through the members’ survey and at the AGM that they want to raise the profile of the Institute among New Zealanders, and to actively raise issues affecting members’ work. In response, the Executive decided at its November meeting to put out a Christmas media release promoting good stewardship of pets given as gifts, so they do not become pests. The release will be a pilot for a series aimed at raising awareness of the work of Institute members and biosecurity generally.

The executive is keen to hear from members about topics they feel the Institute should be making comments upon.

I am pleased to report that plans are well underway by the Otago-Southland branch for NETS2015: “The Learning Never Stops” to be held at Otago University in Dunedin from 26-28 August. I am also pleased to announce that the Auckland-Northland branch has put up its hand to host NETS2016 to be held in Auckland city.

Thank you all for your contributions and support of the Institute this year. I wish you and all your families a Happy Christmas and I hope you have

a well deserved break and return refreshed and renewed for another year of doing what we all do best.

Rebecca Kemp,
President



NZBI Northland-Auckland Branch Report

■ CONTRIBUTED BY NICK WARD

The Northland-Auckland Branch held its last meeting for the year at the Mangawhai Heads Surf Club on November 5th.

Maranui fieldtrip

Our November meeting began with a trip to Marunui (near Mangawhai Heads) hosted by John and Kathy Hawley. Dave their pest control contractor also joined us. The Hawleys are one of eighteen shareholders who manage and privately own Marunui. The land (around 423 hectares) was originally bought by Teddy Goldsmith, an English ecologist, in 1987 and he set up the company with a constitution to manage the land. The land is on the southern slopes of the Brynderwyn Hills near Mangawhai and there is a DOC reserve that adjoins it. The whole property has a QEII covenant and in April 2013 fourteen kiwis were re-introduced to the area. There are regionally significant plants and fauna on the land including Hochstetter's frogs, tomtit, kakareiki, and pippin. The forests are Northern podocarp-kauri-broadleaf forest with extensive areas of kanuka.

In April and May 2014, 22 more adults were introduced to bring the total number of adult kiwis to 36. There have been some chicks and one pair of kiwis has nested again. As they like to roam some of the males were monitored with transmitters. Ultimately the kiwis will spread and some have walked 5-6km and then returned to Marunui.

John briefed us about how they manage pests on Marunui and gave us a guided tour. Unfortunately, no kiwi were seen or heard. The land was formerly kauri and the first kauri was felled in 1850. By 1900 most of the kauri trees were gone. Most of the forest is regenerating with tanekaha in the north and some old totara and rata in the south. In 2013, they trapped eight cats, 118 possums, eight ferrets, 19 weasels, 126 rats, 11 hedgehogs and they shot four magpies. Despite extensive trapping and baiting, up to September 2014 they have caught 13 cats, 70 possums, three ferrets, 10 stoats, 11 weasels and around 300 rats. This is likely the result of a mild winter and prolific fruiting in the area.

Overall the field trip was a great success with experience shared between our biosecurity experts and John and his team. Sara also identified a new weed species for John to keep an eye on. The views out to the coast were stunning. It was great to get out into the bush and then to drive down to the beach for our meeting at the Mangawhai surfclub.

Branch meeting

The branch meeting kicked off with a quick introduction to MPI's new brown marmorated stink bug (BMSB) fact sheet from Nick Ward. BMSB is an emerging threat to New Zealand's horticultural industries.

The branch next took time to congratulate Dave Galloway who was awarded a life membership to the Institute at this year's NETS. Dave has worked tirelessly for biosecurity for many years, and has been a prominent member of the Institute.

The meeting concluded with a presentation by Kane McElrea and Sara Brill from Northland Regional Council on the Whangarei Heads Landcare Forum

(WHLF) – an overarching group providing financial, administrative, monitoring and public advocacy support to a number of smaller Landcare Groups. These groups are all helping to restore and enhance habitat for kiwi on over 6000ha of land on the Whangarei peninsula. The 'Backyard Kiwi Programme' promotes kiwi recovery on private land and now with the NRC's support the programme extends up to Tutakaka.

Initially 80 pairs of kiwis were re-introduced onto the peninsula but now there are around 400 pairs. The biosecurity cost (both animal pests and weeds) to NRC is covered using a funding mechanism called Targeted Rates where the local landowners (around 2500 properties) contribute a specified amount through their rates and the NRC matches the amount. The funding pays for a full time trapper, maintenance work, and advocacy for the landcare groups. This model provides a sustainable way of managing pests. The kiwi is the flagship but species but all biodiversity benefits. Most schools on the peninsula have nurseries and are involved with tree planting.

Mini-philproof bait station

Kane showed the group a "mini-philproof" bait station that had been modified by Nigel Miller – a ranger at the Whangarei Area Office. The modified bait station enables different toxins to be used for rats and possums by physically excluding the non-target pest from accessing toxin it shouldn't be eating. The top compartment is blocked-off so that possums can't get to the rat bait but are still able to access feratox paste through a pipe at the bottom. Rats can still easily access the bait meant for them. A benefit of this modification is that it can be easily set-up by volunteers in the field and over time reduces costs in bait. The placement of the pipe is critical to stop rats getting into it. Contact Kane at KaneM@nrc.govt.nz for more information.

Next meeting

The February 2015 meeting will be held at UNITEC in Auckland and include a field trip to Oakley Creek.



Meet the extreme weeders: Moth plant control on Motutapu Island

Moth plant control on Motutapu Island is a serious business yet it can also be a lot of fun. It also requires a great deal of resourcefulness as Motutapu Restoration Trust Volunteer Vanessa Smallfield describes

The Motutapu Restoration Trust (MRT) began in 1994 with a vision to return some of the island to its post Rangitoto eruption forest and to provide sanctuary for New Zealand endangered species. Under guidance from the Department of Conservation (DOC) the first trees were planted in 1994. To date volunteers have grown, planted and maintained 500,000 trees on approximately 100 ha of the island's 1509 ha in the Home Bay Forest. MRT, Motutapu Farms Ltd and Motutapu Outdoor Education Centre share with DOC in management of this island paradise. The long term aim is to reforest a third of the island.

In 2011 after a massive pest eradication programme by DOC, Motutapu along with its joined-at-the-hip neighbour Rangitoto, was declared pest free.

Since then, tieke, whiteheads, shore plover, takahe and kiwi have been translocated and many species, no longer challenged by stoats, rats, mice and feral cats, have returned by the power of their own wings. The resultant birdsong within the planted forest is a delight to hear and a reward for the thousands of hours of hard work put in by hundreds of volunteers.

The downside to the elimination of mammalian pests is that invasive weed species regenerate in greater numbers.

We have an ongoing battle for control of moth-plant, rhamnus and a suite of other nuisance plants. Our dedicated team of volunteer 'extreme' weeders work all year round to keep our fledgling forest from being entirely engulfed.

Moth plant, *Araujia sericifera*, with its awesome ability to survive is one of our major invasive pests. Other names are cruel plant, kapok vine and milk vine. The milky sap is like latex and is poisonous. Originally from Brazil and Argentina, it has attractive white or cream bell-shaped, scented flowers and was imported as an ornamental. It is a vine, which at the juvenile stage has bright green, elongated, heart shaped leaves. Its aim is to get as high as possible to allow its large seed pods to ripen in the sun and release windblown seeds which can travel on their own parachutes some 30kms. In late summer and autumn a single vine spread across the tops of many trees can release thousands of seeds. Eventually it smothers the host trees preventing photosynthesis.

Our extreme weeder teams operate almost every Sunday of the year on 'seek and destroy' missions.

The juveniles are comparatively easy to see as they remain bright green even in drought conditions. Young vines will travel many meters through grass including meter-deep kikuyu looking for a host tree to climb. However once the vine has reached the canopy of the forest it becomes nearly invisible, leafless and just another beige stem within the forest.

Necessity has meant invention of new ways to tackle the vines, one being the use of an extendable pole with a hand rake attached. The claw can be twisted around a vine some 5 or 6m above ground and the vine pulled down preferably before the flowers set pods.

In some places we are able to use binoculars to spot moth in flower and can direct teams, often as much as 500 metres away, to the position by radio-telephone. This is easier said than done as, with the height of the trees, the team is invisible. The solution is to attach a flag – sometimes a T-shirt – to the top of the extendable pole and hold it high for the spotter to see and direct them. Conversations back and forth can be amusing as the spotter can see the flowering vine and the team on the ground cannot, and must hunt up and down the steep slopes and round and round until they eventually find where it goes into the ground.

Once the vine is discovered the team then look for the root, and there are often many if the vine(s) started from a fallen pod. Some will work on bringing down the vine and collecting pods which are bagged and taken to a large pit to rot, and others will either pull the roots from the light soil or failing that cut and paste the stumps with the prescribed herbicide.



Public enemy No. 1 Moth plant pods.
Araujia sericifera



Tim Schofield and others emptying
moth plant pods into a pit where they
rot



Moth plant vines climbing the slope
and decorating Elsa Klinac's hat

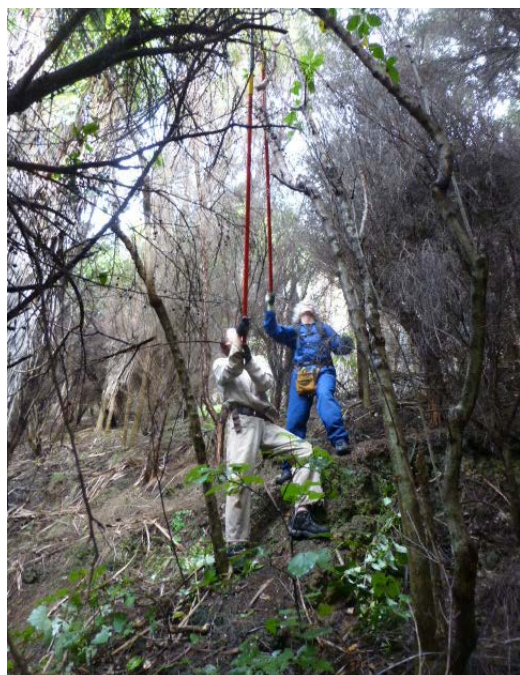


Paula Temple removing vines and
pods from a fallen tree



Paula Drummond using the extendable
grapple





Claudia Weber & Paula Drummond reaching for vines in mature kanuka



Is this the fattest vine ever? The A team lead by Ken Samson



The members of the extreme weed team are passionate about their role in protecting the native forest on Motutapu from the tentacles of moth plant. They are also vocal advocates for the control of moth plant not only on Motutapu but also in the Auckland region. And, they are always looking for new recruits.

Check them out on <https://www.facebook.com/MotutapuRestorationTrust>.

Paula's 'fascinator' formed by a vine.

A grumpy pod



Agrichemical contractors concern council

Agrichemical contractors operating without certification and in breach of the regional rules pose a potential risk to the community, the Waikato Regional Council warned in October.

The council has received complaints from the public that landowners have not notified their neighbours prior to agrichemical spraying, and that agrichemical spraying has ended up drifting on to other people's property. Complaints tend to relate to aerial and ground based machinery.

"As we have looked into these complaints, we have also found that some contractors are not properly trained or qualified to spray agrichemicals," said council incident response team leader Derek Hartley.

"We are working hard to educate landowners and contractors of their obligations and want to remind people of the consequences of ignoring the rules," Mr Hartley said.

A contractor is defined under the rules as being any person or organisation who applies agrichemicals for hire or reward and who is not otherwise an employee of the owner, occupier or manager of that land - for example a farm worker spraying agrichemicals at his usual place of employment.

"Landowners are responsible for notifying their neighbours regarding spray operations. They are also responsible for ensuring contractors being brought in to do the work are suitably qualified—failing to do so can leave them open to liability for any breaches of the regional rules," Mr Hartley said.

Plea to Pāpāmoa pond and aquarium owners

Pāpāmoa pond and aquarium owners were asked in September to check for the invasive pest plant hornwort, following the accidental sale of the aquatic weed from a Pāpāmoa pet store.

"Hornwort is easily mistaken for oxygen weed but it grows much more aggressively. It grows easily from the smallest fragments and can take over freshwater ponds, lakes and waterways," said Bay of Plenty Regional Council Biosecurity Officer Andrew Blayney.

"The store owner stopped selling hornwort as soon as they realised the mistake, but a few customers had taken some home before then."

New rules for importing seeds and plant material

The Ministry for Primary Industries (MPI) has recently changed the biosecurity rules applied to commonly imported seeds and plant material, including capsicum (e.g. chilli, bell peppers) and Cape gooseberry seeds, and plant material of dahlia, chrysanthemum, and petunia.

The new rules are now in place, and imported seeds and plant material will need to meet with the new rules before they can enter New Zealand.

The changes have been made to target the potato spindle tuber viroid disease. This is one of the most destructive diseases of potatoes worldwide, and can cause severe yield losses in some varieties of potato and tomato.

Under the new rules, both home gardeners and commercial growers are only able to bring into New Zealand seeds and plant material sourced from businesses that are certified to be free of the targeted diseases.

This means travellers will be prevented from bringing seeds and plant material into the country that have been personally collected or purchased from sources which cannot provide official certification.

Seed and plant varieties which are already present in New Zealand can still be used.

"We want to contain it before it has a chance to affect recreation, block irrigation or drainage systems, and displace native plants and fish in the region," Andrew said

Anyone that finds hornwort should either dispose of it through the general rubbish collection or contact Bay of Plenty Regional Council for advice and assistance, phone 0800 880 884 or email info@boprc.govt.nz.

"Whatever you do, please don't tip it into a local waterway or send it down the drain," Andrew said.



New Waikato rules cover privet removal

In November Waikato Regional Council reminded people who think privet on a neighbour's property is causing them allergy problems that new rules are in place covering when the council will require neighbours to remove the plant.

"Basically people have to get a positive allergy test for privet before we will consider making a neighbour remove it," said biosecurity officer Darion Embling.

"Under our new Waikato Regional Pest Management Plan, the privet allegedly causing the problem must be within 50 metres of the property boundary or in public amenity areas, such as parks and playgrounds, or in frequently used thoroughfares."

Mr Embling said that while the pollen and scent of privet is believed to contribute to respiratory disorders there is no evidence of a direct link. Also, research shows privet is not a strong allergen for the majority of people.

"That's why we've developed the new approach to privet. It provides a basis for affected people to take action but they need to get an allergy test and the position of the privet said to be involved has to meet strict criteria before we'll formally require its removal," said Mr Embling. However, the council is also helping fund more research into privet's potential effect on people and it encourages landowners to control privet on their properties.

Privet itself is banned from sale, propagation, distribution or commercial display. Also, in some residential areas there are community-driven

initiatives under which people are still required to destroy privet. These include residential areas in Tuakau, Whatawhata, Torohanga, Te Kūiti, Pirongia, Kihikihi, Orini, Mangatarata, Te Aroha, Waihi and Paeroa.

Mr Embling said privet is a widespread ecological pest in Waikato.

"Privet rapidly invades bush margins and waste areas and the leaves and berries are poisonous to animals and humans. Tree privet is capable of crowding out canopy trees in native forests. It may also impede native seedling germination and may eventually dominate an area of forest. Chinese privet can displace shrubs on the margins of native forests.

"If you have privet it is recommended that you remove privet immediately to prevent further spread," said Mr Embling.

For more information about the control options for privet and a list of other pest plants, visit www.waikatoregion.govt.nz/rpmp or call biosecurity staff on 0800 BIOSEC (0800 246 732).

■ CONTRIBUTED BY WAIKATO REGIONAL COUNCIL.



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A cheerful army of weekend warriors: Canterbury Weedbusters Awards



Earlier this Summer Environment Canterbury and the Department of Conservation announced winners of the biennial Weedbuster Awards.

The recipients were Charlesworth Wetland Reserve Maintenance Team, Christchurch (Winner - Overall Excellence), Gillian Giller, North Canterbury (Winner – Private Land), Helen Chambers, Governors Bay (Highly Commended – Private Land) and Sumner Environment Group (Winner – Public Land).

Nationally there are around 220 registered Weedbusters groups, and many other groups are doing similar work.

On top of that are the many Kiwis who are weedbusting in their own backyards and on their lifestyle blocks and farms, removing weedy ornamental species and replacing them with ones that aren't going to "jump the fence" and invade natural areas.

Tom Lambie, Environment Canterbury Commissioner responsible for biosecurity and pests said Canterbury's amazing landscapes, iconic flora and fauna and unique environments are under threat from weed pests.

"The national Weedbusters programme is a great example of how the community and a range of organisations can work together sharing their knowledge, skills and resources to meet a common goal of controlling pest plants in our natural areas, and for agencies to celebrate members of our community together," Mr Lambie said.

"Once weeds have established in the wild they are very costly and difficult to control and the damage they cause is sometimes irreversible. Weedbusting takes good identification skills, control technique knowledge, perseverance and dedication over a long period to get results - attributes all the nominees for these awards have demonstrated. Without the

Weedbusters partnership and commitment by all, New Zealand would be a very different place."

Award judge Jon Sullivan's Senior Lecturer in Ecology at Lincoln University said the Weedbuster Awards are a chance every two years to "celebrate the actions of the many individuals and community groups out there on their weekends keeping their precious corners of New Zealand nature free from the worst weeds".

Saluting the winners, he said: "Every time I judge these awards, I come away encouraged and amazed by the sheer volume of weeds being removed from our natural areas by individuals and community groups every month. Nature in and around New Zealand's cities would be a much weedier place without this cheerful army of weekend warriors."

"All the nominations for the Weedbuster Awards underscore how much of our environment is kept clean and green by the actions of Kiwis quietly getting stuck in and doing the right thing. It's fantastic."

Weedbusters is supported by a variety of organisations, NGOs and all regional councils and unitary authorities.

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On the hunt for Woolly Nightshade

Where's Woolly? That's the question on the lips of Pahiatua residents as Horizons' environmental management officer pest plants Jack Keast seeks the last remaining woolly nightshade sites.

Woolly Nightshade is a fast-growing weed, known for its distinctive kerosene smell and ability to grow taller than a house in just a few years.

Tiny hairs covering the plant can cause asthma-like symptoms including coughing and throat irritation. Some parts, including the berries, can also be poisonous making it important to keep children and stock away from the plant.

Jack said the weed was discovered on some Pahiatua properties during a Council survey in 2013. Work was undertaken to clear these sites but a small foothold remains.

Woolly Nightshade spreads readily through urban areas, pasture and native forest margins; negatively impacting production and other plant species.

"We're pretty close to stamping this pest plant out in Pahiatua but a few unknown sites remain. Total control requires a community effort and we really appreciate people letting us know if they see it or find it on their properties so we can assist with its removal," Jack said.

Key identifiers include large soft light-green leaves, small purple flowers and green and yellow berries.

Anyone who thinks they may have spotted this weed or would like more information is encouraged to get in contact with Jack on 021 2277 100 or toll free number 0508 800 800.

■ HORIZONS REGIONAL COUNCIL

Auckland boat brings marine pests to Tauranga

An Auckland boat infested with the marine pests Mediterranean fanworm and clubbed tunicate sea squirt was discovered on a Pilot Bay mooring in Tauranga Harbour in November.

The discovery was made by Bay of Plenty Regional Council contracted divers during the first round of a new proactive marine pest surveillance programme in the Tauranga Harbour.

"We've been negotiating with the boat owner to get it hauled out and cleaned as soon as possible," said Regional Council Biosecurity Officer Hamish Lass.

The vessel was brought to Pilot Bay from Auckland in December last year. It is estimated to be carrying more than 100 individual fanworms on its hull, as well as a number of clubbed tunicate sea squirts.

The unwanted fanworm and sea squirt have become well established in Auckland's Waitemata Harbour.

"It's frustrating that the boat owner didn't clean his boat hull before travelling to Tauranga, or even when he arrived here."

He moored up just after we'd completed our last round of dive surveys in Pilot Bay and found it clear of Mediterranean fanworm," Hamish said.

The latest find is the third pest-infested boat found in Tauranga Harbour since September 2013.

Hamish also said that due to the size and number of fanworms on the hull, and the duration that it's been moored locally, it's possible that the fanworms will have spawned in Pilot Bay during the winter and autumn spawning season.

"That will add scale and complexity to our containment efforts. We're working with Ministry for Primary Industries to develop and implement an appropriate response. It's likely to involve many hours of underwater searching," he said.

The Council is asking everyone who uses the harbour to keep an eye out for marine pests and boats with heavily fouled hulls, and report them immediately to him at Bay of Plenty Regional Council by calling 0800 884 880.

"We also need all moored or berthed boat owners to help prevent further spread by keeping their boat hulls clean and anti-foul fresh."

Further information about marine pests including Mediterranean fanworm is available at www.boprc.govt.nz/marinepests.

■ BAY OF PLENTY REGIONAL COUNCIL

New butterfly to tackle problematic Japanese honeysuckle

A Japanese butterfly was introduced into New Zealand in November as a frontline defence against a weed threatening native plant life.

Honshu white admiral butterflies have been released in the Waikato region to combat Japanese honeysuckle, a fast spreading white-flowered vine. The weed has become a huge problem in New Zealand with nothing to keep it in check, until now.

Landcare Research scientist Quentin Paynter said the caterpillars were "voracious" and each could consume several leaves during the course of its development.

He said if breeding went well at the site they would look at releasing more of the butterflies elsewhere.

"At the moment we are keeping a close eye on the initial release site. We don't have many butterflies available for release as it is a very difficult species to rear in captivity because the adults refuse to mate when confined indoors.

"Because we have so few butterflies to play with, concentrating on getting establishment at one initial site may be the best option. But if we start finding large numbers of eggs at the first release site we will certainly consider releasing adults at a second site."

He expected the butterflies would do well in New Zealand as the climate was less extreme than Japan's. Dr Paynter said it was impossible to say just how many would be needed to make a dent in the density of Japanese honeysuckle but it would be "an awful lot".

"Each female butterfly can lay 200 eggs, so if they establish, then they should be capable of rapidly building up their numbers. In the longer term we hope they end up eating themselves out of house and home."

Paynter said biological control was often the "last option" to control a weed when conventional methods were not viable.



One of the Honshu white admiral butterflies recently released in the Waikato.

STOP PRESS: Quentin reports that he has discovered caterpillars at the release site.

"The big issue with Japanese honeysuckle is that because it's a climber it's really hard to kill with herbicides without killing the thing it's actually climbing on at the same time. Biocontrol is seen as a friendlier way to control it."

The introduction of the white admiral butterflies comes after years of research by Dr Paynter and his fellow Landcare Research colleagues Hugh Gourlay and Chris Winks.

Most of the testing had to be based in Japan due to difficulties mating the butterflies in captivity in New Zealand despite attempts at hand-pairing by an expert brought in from the United States.

In Japan, the Landcare Research team discovered more than 15 natural enemies of the Japanese honeysuckle.

These were narrowed down to the five most promising potential biological control agents.

Dr Paynter said the white admiral butterfly came out on top as field surveys in Japan indicated that it is an adaptable species that was found in a variety of habitats from hot lowland sites to cool mountain habitats, suggesting that it should be able to adapt to living in New Zealand.

Other promising potential biocontrol agents for Japanese honeysuckle in the pipeline include a stem-boring beetle and an, as yet, undescribed moth which destroys the stem tips.

The release of the butterflies comes as a milestone after the trials faced numerous setbacks including disruption to the research programme because of the Canterbury earthquakes and the 2011 tsunami in Japan. Some of the research sites in Japan were wiped out by the tsunami.

The Environmental Protection Authority approved the release of the butterfly in August 2013 after research showed the larvae would not feed on other plants. The Greater Wellington Regional Council applied for the consent on behalf of the National Biocontrol Collective.

Japanese honeysuckle was introduced to New Zealand as a garden plant but has become firmly established in bush environments. With growth of up to 15m per year in ideal conditions, traditional methods of combating the weed such as chemical or manual control are no longer practicable in many areas.

■ LANDCARE RESEARCH





Mid-flight centipede scare

A mid-flight encounter with a dangerous centipede highlights the need for air passengers to check their bags for creepy crawlies before heading to New Zealand.

Crew on a flight from Apia to Auckland recently alerted the Ministry for Primary Industries that a centipede had tried to crawl up a first-class passenger's leg and was loose in the cabin.

Quarantine inspectors checked the plane and found the centipede between a seat and the cabin wall.

The unidentified 10cm centipede was destroyed.

Pacific yacht biosecurity

Yachts arriving in Northland from overseas this season have faced greater biosecurity scrutiny.

The move follows two Queensland fruit fly detections in Whangarei earlier this year.

Ministry for Primary Industries (MPI) said there is limited evidence to suggest the flies arrived in New Zealand on yachts, but is keen to ensure that the gate is closed on this pathway.

Eight extra quarantine inspectors have been working in Northland during the arrival season from October to mid-December when the bulk of yachts sheltering in the Pacific islands for the winter decide to haul anchor for New Zealand and Australia.

MPI has been working with Northland iwi to bring more people into the Coast Watch programme, which encourages local people to report unusual events on the coast such as vessels anchoring without informing authorities.

To spread the biosecurity word, MPI sent quarantine inspectors this season to the two main yacht gathering points in the South Pacific – Musket Cove in Fiji and Vava'u in Tonga.

Youngster knew about rock melon

Lesson for parents: Listen to your children a little more, especially when it comes to New Zealand's biosecurity rules.

Ministry for Primary Industries (MPI) biosecurity officials seized a 14kg rock melon in October from an Afghanistan family of three arriving at Auckland airport from Malaysia.

The son spoke good English and told MPI staff that he tried to convince his parents not to bring the melon, but they didn't listen.

The family had declared the melon, so didn't face a fine.

Honey smugglers sent home

Border officials sent two Ukrainian air passengers home recently after they tried to smuggle honey and bee pollen into New Zealand.

The couple were found with nearly 3kg of honey and 1kg of pollen at Auckland airport.

The man and woman had arrived in New Zealand to work at a beekeeping operation in the lower North Island.

MPI said the couple had failed to declare they were carrying any food or other items of biosecurity risk.

"They had declared they were apiarists, which is a high-risk occupation for us. That's one of the reasons why our inspectors conducted the search.

"The fact they were taking the products to a beekeeping area is just mind-boggling," the Ministry said.

As a result they were sent home on the first available flight.

Weasels hitch a ride

The Ministry for Primary Industries (MPI) is applauding a sharp-eyed worker who recently spotted some hitchhiking baby weasels at a quarantine facility in Hamilton.

The worker found three baby weasels in a consignment of new tyres from Malaysia at a transitional facility in Te Rapa. The worker immediately closed the container after the find and then called MPI to check the remainder of the consignment.

MPI said the weasels were dead, but they could have been carrying pests or diseases. The exact species was not identified, but the weasels were a very unusual biosecurity interception for MPI.

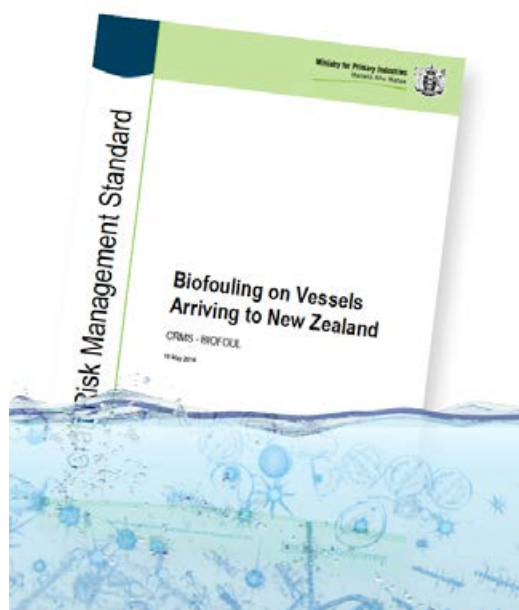


Craft Risk Management Standard for 2018

The Ministry for Primary Industries has introduced a new requirement for vessels arriving in New Zealand to have a clean hull or have maintenance measures or treatment systems in place to ensure they do not introduce marine species.

The Craft Risk Management Standard, once in force in 2018, will strengthen existing measures to stop the introduction of marine pests, which are extremely difficult to eradicate once they are established in our marine environment.

MPI is also leading the development of a Domestic Marine Pathways Strategy. This strategy will identify the actions stakeholders can take collectively to prevent the spread of marine pests through improved management of vectors and pathways.



Tea revealed as snake fillets

Inspection of a seemingly innocent package of tea revealed python fillets, raising biosecurity alarm at Auckland airport.

A passenger arriving from China presented the package to biosecurity officials upon landing at Auckland at the start of November, saying she believed it to be tea, but as it had been packed by her mother, she wasn't sure.

MPI did not fine the passenger, as she had declared the item.

MPI said the interception was unusual, and has passed the meat to the Department of Conservation, as it may be subject to the Trade in Endangered Species Act.

Not so lucky charms

A passenger's charms may be lucky for detecting gold but they didn't impress biosecurity officials at Wellington airport.

The passenger recently arrived from Australia with lucky charms made from snake parts (including fangs from Thailand) and horse hair.

He said the charms were usually attached to his metal detector when he searched for gold.

The passenger chose for MPI to hold the items and collected them on his way home five days later.



Funding boost for TAG's fight against tutsan

CONTRIBUTED BY DAVE ALKER HORIZONS REGIONAL COUNCIL

Taumarunui's Tutsan Action Group (TAG) Chairman, Graham Wheeler, is delighted that the group has secured a further three years of government and community funding to complete an internationally groundbreaking investigation into the biological control of the pest plant tutsan (*Hypericum androsaemum*).

Over the past three years, Landcare Research has been contracted by TAG to study tutsan in New Zealand and in its native ranges in Europe and the UK, and to look for insects and diseases attacking it. Insects, which don't already exist in NZ, have been found attacking tutsan in Georgia—a moth (*Lathronympha strigana*) and a beetle (*Chrysolina abchasica*)—both of which appear to be quite damaging and relatively host-specific to tutsan. They will be brought back to NZ for intensive research and testing over the next three years. If found to be successful in attacking NZ tutsan, approval will be sought from the Environmental Protection Authority (EPA) for the release of one or both of these insects in NZ. Researchers will also continue their search for a new rust that could be effective on North Island tutsan.

Mr. Wheeler said tutsan now costs some landowners up to \$400 per hectare per year to control. An economic assessment of tutsan carried out by TAG calculated \$2.3 million per year in direct and indirect costs, with a current capital cost to NZ of up to \$32 million due to reduction in land values.

TAG has now raised a total of \$1.2 million from contributors including the Ministry of Primary Industries Sustainable Farming Fund

(SFF), Horizons and other regional councils, Landcare Research, Ruapehu District Council, Department of Conservation, Treescape/KiwiRail, territorial authorities, Maori-owned enterprises, forestry, other community groups and over 150 individual farmers. SFF, which invests in farmer, grower and forester-led projects, advises that this is their best ever project in terms of community participation and cash contributions. This world-first study has sparked interest from scientists around the world and was the subject of a paper presented to the South African International Symposium on Biological Control of Weeds this year by Landcare's Senior Researcher, Hugh Gourlay.

The Tutsan Action Group (TAG) was formed in 2007 by a group of concerned farmers with Horizons Regional Council, DoC and Landcare Research, in response to concern at the increasing spread of this invasive pasture weed.

Tutsan exists all over New Zealand but is a significant problem in parts of the central North Island where it forms extensive patches that threaten agricultural, forestry and conservation land. Unpalatable to stock, hard to kill and shade-tolerant, tutsan is particularly prevalent in areas where the land has been disturbed by the likes of forestry – much like gorse and broom. It is easily spread by birds, mowers, machinery and soil and water movement. Common seed sources include roadsides, conservation and wasteland, old gardens and forestry. Serious

tutsan infestations throughout NZ in the 1950s almost disappeared thanks to the self-introduced rust (*Melampsora hypericum*). While this rust appears to still be effective in the South Island, it has become largely ineffective in the North Island.

For more information, contact Dave Alker HRC 0212277137, dave.alker@horizons.govt.nz TAG Chairman Graham Wheeler 07 895 3030, gkwheeler@farmside.co.nz or Secretary Ros Burton 07 895 8052, gtb@xtra.co.nz



Right to left are: Dave Alker, Dave Jurgens, Amy Hawcroft, Hugh Gourlay, Ros Burton, Graham Wheeler, Geoff Burton, Craig Davey, Mike Gibbs. (Amy has since left the group)



The Alpeco eMitter...

[Advertisement]

Following increasing concern regarding the humaneness of glueboard traps, the New Zealand Government passed legislation that will see the use of glueboards to catch rodents completely prohibited from 1 January 2015.

This presents a conundrum for New Zealand commercial pest operators, who have traditionally used glueboards as an effective and low-cost alternative to anticoagulant rodenticides. Rodenticides, although very effective, are lethal and pose a deadly risk to non-target species such as dogs, birds and other small mammals.

In Europe, where both rodenticides and glue boards are illegal, a new exciting spin on the traditional rodent snap trap has emerged. The eMitter provides a simple, humane and effective method of rodent control. Rodents are enticed into the snap trap station with Nara Lures, a non-toxic bait, making them ideal for use in the hospitality and primary industries.

Alpeco Limited is the sole importer and distributor of the eMitter. Heiko Kaiser, Managing Director, says "I have seen a notable increase in the demand for effective, environmentally friendly pest control methods in New Zealand. The key word here is effective. This is what motivates Alpeco - identifying the most effective non-toxic technology available globally, and bringing it back to New Zealand."

Together with an exclusive network of authorised service partners, Alpeco is dedicated to providing the New Zealand pest industry with a range of effective, chemical free pest management alternatives.

Heiko comments, "We made a conscious decision to only work with industry leaders that we trusted to deliver this technology as part of an integrated pest management programme. These guys are well-established and respected in their field. They are all registered members of the Pest Control Association of New Zealand, with many of them directly involved with the Association."



non toxic rodent solutions

The eMitter's ingenious technology makes the snap trap simple to install and monitor. The trap station connects to a remote server that sends an automatic email or SMS notification when rodents activate the trap. This reduces timely and costly manual checking of rodent stations each day.



For more information about the eMitter and other non-toxic pest technologies, visit www.alpeco.co.nz. You can also contact one of Alpeco's authorised pest service partners:

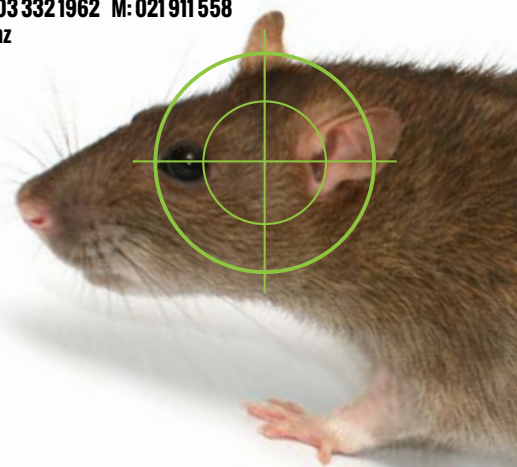
Auckland Region | A-Jet Services | Mike Collins
T: 0800 862 538 M: 021 941 313 E: mike@ajetservices.co.nz

Central North Island | Alpeco | Heiko Kaiser
T: 0800 ALPECO (257326) M: 021 123 7711 E: info@alpeco.co.nz

Wellington Region | Kwikill Environmental Services | Mike Hermansson
T: 04 236 8398 M: 027 442 6698 E: Kwikill@paradise.net.nz

South Island - Canterbury | Elite Pest Control
Garry or Dawn Hendrikse T: 03 332 1962 M: 021 911 558
E: info@elitepestcontrol.co.nz

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Monitoring wide-scale predator control in Hawke's Bay

Scientists from Landcare Research have been monitoring the effectiveness of predator control on a conservation reserve in Hawke's Bay. The results so far are encouraging as Al Glen from Landcare Research reports.

Boundary Stream Mainland Island is a conservation reserve in Hawke's Bay managed by the Department of Conservation (DOC). Intensive predator control has taken place in the reserve for over a decade to protect native species such as kiwi and kokako. Since 2011, Hawke's Bay Regional Council (HBRC) has been controlling predators across 8,000 ha on two pastoral properties, Rangiora and Opouahi stations, beside Boundary Stream. The aim is to restore native biodiversity in the pastoral landscape, and to reduce reinvasion of predators into Boundary Stream. This wide-scale predator control is part of a larger collaborative project known as *Poutiri Ao ō Tāne* (www.poutiri.co.nz), which involves community groups, DOC and HBRC.

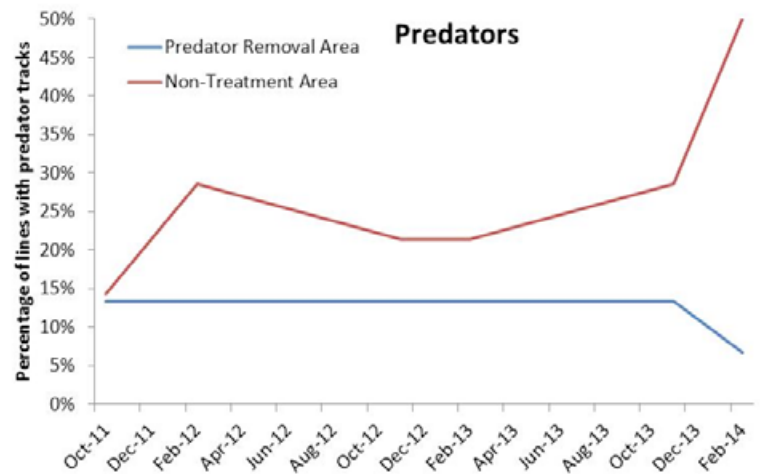


Fig. 1. Detection rates of predators (feral cats, stoats and ferrets) in tracking tunnels are consistently lower in the predator removal area than in the non-treatment area, indicating that predator control is effective.

Landcare Research has been monitoring the effectiveness of the control work in reducing predator numbers, and restoring native biodiversity.

Monitoring with large tracking tunnels shows that predator abundance is lower on Rangiora and Opouahi stations than in an adjacent area where there is no predator control (Fig.1).

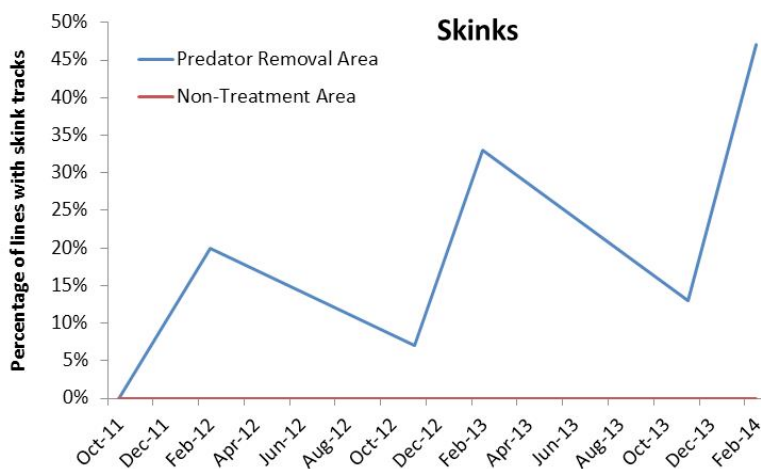


Fig. 2. Detection rates of skinks in tracking tunnels have rapidly increased where predators are controlled, but not in the non-treatment area.

The tracking tunnels have also proved effective at detecting native lizards, which are rapidly increasing in abundance in the predator control area; no skinks have been detected in the non-treatment area (Fig. 2).



Invertebrates also appear to be more abundant in the predator removal area. Weta houses on Rangiora and Opouahi stations have over 30% more invertebrates than those in the non-treatment area (Fig. 3).

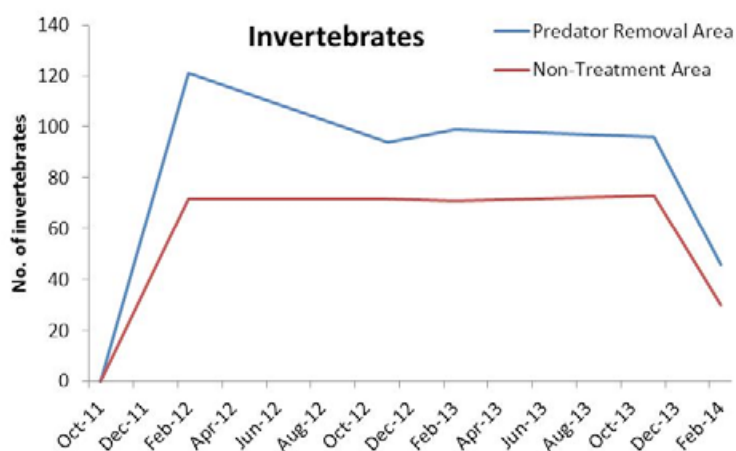
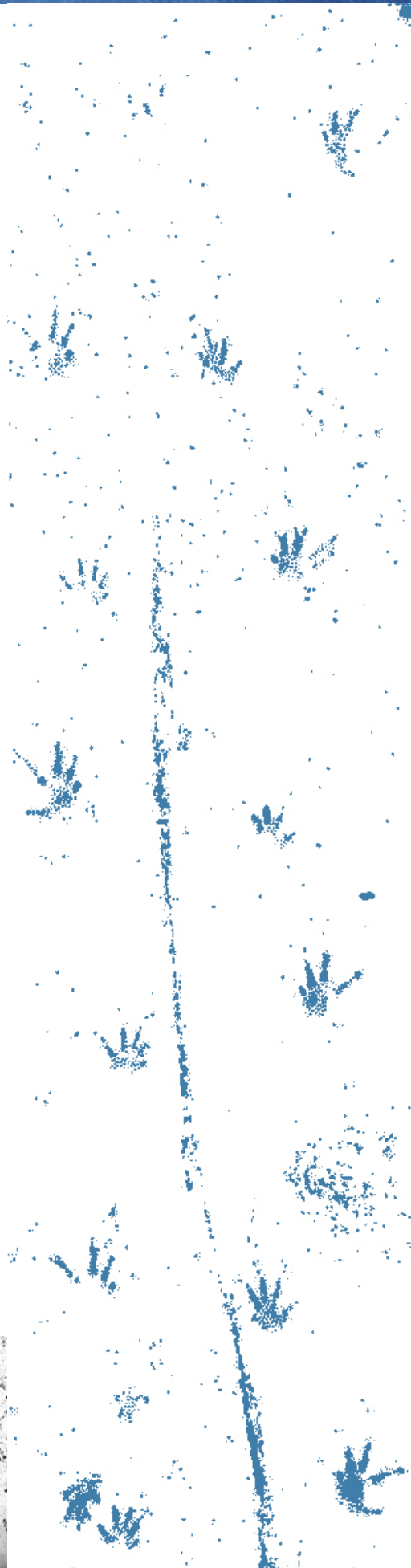
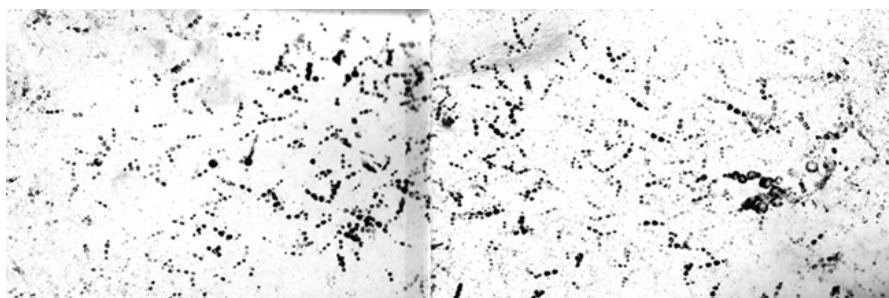


Fig. 3. Although numbers of invertebrates in weta houses fluctuate, they are consistently higher in the predator removal area.

These results suggest trapping is effectively reducing predator populations, with benefits for native animals. Ongoing monitoring will determine whether predator control is also associated with increased abundance of native bird species sensitive to predation.



Guava moth: Sex drive may be its downfall

A scented bread-tie like device which spurs male moths to hunt a non-existent female mate until they literally die from exhaustion is being trialled in Whangarei in a joint bid to better protect backyard fruit and nuts from guava moth infestation.

About 80 Riverside residents have joined forces with NorthTec and the Northland Regional Council and agreed to take part in a 14-month long free trial based on use of a naturally-occurring female moth pheromone as a biological control weapon.

Northland Regional Council Chairman Bill Shepherd said guava moth (*Coscinoptycha improbana*) is thought to have blown across the Tasman in its adult form in the late 1990s.

"Unfortunately, it's now a very much established and unwelcome pest, whose larvae infests and ruins a range of soft fruit and nuts, both domestic and commercial, in Northland year-round."

In a bid to better protect fruit and nut crops, those behind the trial – which officially began yesterday – are attempting to use the male moths' sex drive as the instrument of their own destruction.

"The technique uses a naturally-occurring pheromone produced by female moths to attract males. This scent confuses the males who

use up their limited energy reserves in a vain search for these 'phantom' females until they die."

Councillor Shepherd says this then disrupts the guava moth breeding cycle as when female moths are actually present in large numbers at peak breeding times they struggle to find a male mate and their eggs remain unfertilised.

He said there are already some commercially-made pheromone traps available in Whangarei, but they are typically larger and rely on a combination of a different scent and sticky pads to physically trap and kill moths.



Aaron Heap, a second-year NorthTec biodiversity degree student, shows Northland Regional Council chairman Bill Shepherd a guava moth pheromone twist tie. The tie is laced with a natural pheromone from female moths and is being trialled in Whangarei in a bid to help protect fruit and nuts from infestation.



"Our Northland-based insect consultant Jenny Dymock has conducted small-scale trials over the past year in the Far North and found that the scented twisty ties we've been developing appear to reduce guava moth damage in crops at very low cost."

He said the imported ties are based on those used to lure a similar overseas moth and cost just a few cents per unit

More than 80 residents in the Riverside area were written to and had agreed to take part in the trial, which will see 10 of the twist ties attached to trees on their properties, where they will remain for the next 14 months.

"This will be our first large-scale trial of the new system and will allow us to see how the ties perform in large numbers over a defined several hectare area.

Over summer and autumn fruit like feijoa will be collected from the trial properties to see if they have been infested by guava moth.

Councillor Shepherd said the ties are not expected to be a 'silver bullet' to the guava moth problem.

"But given the low cost of this new tool, if it can provide even a small amount of relief for residents trying to grow their own fruit then it will be worthwhile. This is a really great example of a community working together to tackle a common enemy and it's also fantastic that we are able to work with some of NorthTec's best students who are taking a lead role in the trial."

Councillor Shepherd said residents will be kept up to date with trial results over the next year.

■ CONTRIBUTED BY NORTHLAND
REGIONAL COUNCIL

Glueboard traps prohibited

From 1 January 2015, the sale and use of glueboard traps—which are sticky boards used to monitor and capture rodents—is prohibited under the Animal Welfare (Glueboard Traps) Order 2009.

The Ministry for Primary Industries (MPI) Director Animal and Animal Products, Matthew Stone, said while MPI supports the need for access to effective pest control tools, this prohibition sends a clear message that glueboard traps are no longer acceptable from an animal welfare perspective.

"There are welfare concerns with glueboard traps over the pain and distress they cause captured rodents – including the length of time the rodents may be left on the traps and the potential for inhumane disposal," he said.

"Attitudes about animal welfare continually evolve, and it's important that we keep pace with changes in our society, as well as scientific knowledge, good practice and available technology."

Ministerial approval can be granted for glueboard traps to be used in some cases where there is strong public interest in effective rodent management and no viable alternative, such as in food processing premises and pest-free islands.

"Effective pest management is essential for New Zealand's food safety, conservation, primary production and biosecurity, however animal welfare has to be taken into account," said Mr Stone.

"Pest control operators must make every reasonable effort to find humane alternatives."

Mr Stone says the Ministry is focused on ensuring pest control operators are aware of the new regulations, however the public need to be vigilant and report any retailers breaching the rules. The public have not been able to use glueboard traps for the last five years.

"Our animal welfare inspectors can't be everywhere, so we need the public to be our eyes and ears.

"If you see any glueboard traps being sold or used, please report them to your local SPCA or MPI's animal welfare hotline on 0800 008 333. Calls can be kept confidential if necessary."



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