Spring - 2007 ISSN 1175-043X

# Protect



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## Protect

## Spring 2007 Magazine of the New Zealand Biosecurity Institute Contents

Editor's Note	4		
NZBI Contacts	4		
News from the Executive	5		
News from the Branches	7		
Member Profile: Holly Cox	9		
NETS2007 - Exposed at NETS - Matiu/Somes Island - Airport bioscurity, South Coast, Owhiro Bay Restoration Programme - Parliament – an educational tour - Claybird shoot a hit - Thank you from the Chair	10 11 12 13 13		
<b>Gypsy moth vessel inspections in Japan</b> Aaron Treadaway	15		
Conservation in the Emerald IsleGreg Hoskins	17		
New tools to fight pests- Cholecalciferol gel bait for possums- Endothol trials on hornwortBen Winder	18 19		
Protect feedback evaluation	20		
Biosecurity New Zealand News			
Courage and triumph (in the name of biosecurity)			
Book review: Western Weeds: A guide to the weeds of Western Australia			

## Editor's Note

Genjoying spring and the glimpse of summer on the way. For some of you the busy season will just be blooming or bouncing in and out of burrows, for others winter operations come to an end and it's almost time for a holiday. For many, the work continues and hopefully the change in the season brings positive and renewed energy!

This issue we have news from members around the country including Greg Hoskins's travels to the Emerald Isle. We take a look back at NETS 2007, which was a great event – thanks to all involved. Our international piece comes from Aaron Treadaway who is part of the Asian gypsy moth offshore inspections team at JEVIC. We have updates on two new tools for pest control: cholecalciferol gel bait for possums by Dr Dave Morgan; and endothol trials on hornwort from Ben Winder. MAFBiosecurity New Zealand tells us about new plants added to the NPPA and key partnerships for marine biosecurity. We also say congratulations to award winners Diederik Meenken, Paul Champion and the Kerikeri Plant Protection Nursery.

Thanks to all of you who filled out feedback forms for *Protect* at NETS. We had very positive feedback with a number of good suggestions for future issues. See page 20 for more.

Enjoy

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## **News from the Executive**

#### Kia ora and hello from the Executive!

hank you to those who resisted the temptation of the mix 'n' mingle and attended the Institute's AGM during the recent NETS2007. Given the meaty topic of working through the constitution it was encouraging to see a dedicated core remain until the end.

Aligning the constitution to more accurately reflect the business of the Institute was important even though in the most part the changes were cosmetic. However, the inclusion of the NETS clause (clause 21) is an excellent addition that will help clarify a traditionally grey area surrounding NETS seed funding and disbursement of surplus to branches.

The Executive will continue to look at the Mission Statement and Winding-Up clause and once we have a consensus, circulate for comment and approval at next year's AGM.

#### **Election of Officers**

There is only one new face on the Executive this year — Louise Cook from Environment Canterbury has taken on the position of secretary. Lynley Hayes sat through her last Executive meeting and stood down from Executive as her term of immediate Past President ended with Carolyn Lewis now filling that position as I took over the Presidency. I would like to thank Lynley for her many years of valuable involvement at the Branch and Executive level. Seconded members who continue on in their roles are John Gardner (Ministry of Health), Andrew Harrison (MAF Biosecurity New Zealand) and Alistair Fairweather (DOC, representing vertebrate pest interests). One vice-president position remains vacant.

#### **Branch health**

Unfortunately poor Branch health was a common theme arising out of the Branch reports presented at the AGM. I would like to encourage all members to make the effort to be involved at the Institute's local Branch level. Branch activities provide another opportunity to forge relationships and find out what is happening in the world of biosecurity locally. Participation at this level is also a great way to work into executive positions.

#### **Financial Report**

Our treasurer, Helen Braithwaite, gave the yearly financial report at the AGM. The financial forecast for the remainder of 2007 is that there are still payments to be made for *Protect* and the study/travel awards. However, the remaining sum in the current account will cover expenses through to the end of 2007, with a surplus of around \$8000 in the current account. Total

funds for the end of 2007 are estimated to be \$39,000. The recommendation was made to keep honoraria and subscriptions at the same amount.

#### Membership

Currently membership is tracking on par with last year, which is great. Please remember to keep your subscription current and respond to invoices promptly. Melissa Hutchison (Membership Officer) and Helen Braithwaite work very hard on generating invoices and it adds substantially to their workload when people are late and require chasing along. Also, don't forget that you are only eligible for members' rates for NETS registrations if you have paid by March.

#### **New members**

The NZBI warmly welcomes the following people who picked up the trial membership as offered at NETS2007: **Sophie Allen** ......Biosecurity New Zealand **Jessica Roberts** ....SMS New Zealand BioSecure **Helen Parish** ......Landcare Research **Bill Chisholm** ......Aquatic Weed Control Ltd **Sarah Dodd** .....

 Robert Bashford
 Horizons RC

 Michelle Crowell
 DOC

 Mark Bullians
 MAF Biosecurity

 Joel Peters
 DOC

 Brendan Gould
 Biosecurity New Zealand

 Pete Holloran
 New Zealand

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Rex Johnstone	.Kiwicare Corporation Ltd
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Henry Samson E	nvironment Bay Of Plenty
<b>Busakorn Charuchind</b>	aAuckland University
Neil Blackie	Animal Health Board
Catriona Robertson	Greater Wellington RC
Sarah Kennedy	University Of Otago
Martin Cleland	Nelson City Council
Megan Banks	Greater Wellington RC

#### Website

David Brittain from Kiwicare Cooperation Ltd continues to manage our website. As one of the more important avenues for information exchange the Executive is looking at how the website can be modified/upgraded to better serve the membership, you, and possibly as a tool to market ourselves to new members. If you have

### News from the Executive Continued

some constructive criticism of the current website and some ideas, big or small, about what you would like to see functioning in cyberspace then please contact Tim Senior, Environment Bay of Plenty, (Tim.Senior@ envbop.govt.nz). Visit www.biosecurity.org.nz to view, the members section is accessed using the username "nzbiosec", and password "didymo".

#### NETS2008 Hamilton

You may ask: "The ink has only just dried from another great NETS and we are already talking about next year?" If you feel you can contribute towards presentations/posters/sponsorship, please contact Events Co-ordinator Carolyn Lewis (cl.sb@xtra.co.nz) or Chairman Paul Champion and have your thoughts heard out loud. Hamilton is a great central location and promises to be an excellent NETS.

#### NETS2009 Queenstown

Queenstown last hosted NETS 30 years ago and 2009 will be the Institute's 60th anniversary, so ring those calendars now! It will be held later in the year, probably September, to avoid freezing temperatures, allow for field trips and avoid the busy season. If you want to help out as part of the organizing team then please contact Randall Milne (randall.milne@es.govt.nz) at Environment Southland.

Craig Davey President Craig.Davey@horizons.govt.nz

## **News from the Branches**

#### Northland/Auckland Branch

ver the last year, the branch has run smoothly with two informative and educational meetings. The branch has grown with membership increasing from 91 to 101.

Recent meetings have been held at McLeod Bay Hall, Whangarei Heads, where DOC staff gave an overview of the predator control work for the kiwi programme and weed control at Bream Head. Bream Head Scenic Reserve is regarded as one of the top 20 coastal forest reserves in the country due to its unique coastal broadleaf forest association and variety of rare flora and fauna.

More recently we met at the Auckland Botanical

Gardens for our AGM, where Jack Hobbs, the Botanical Gardens Curator, talked about threatened plants and gave us a tour of the gardens collection. Don McKenzie, Team Leader, Northland Regional Council, spoke about the aquatic plant survey carried out by NIWA in Northland dune lakes and the tactics they were considering to use on some of the aquatic pest plants present. Mike White, Biosecurity Officer, gave us a tour of the biosecurity weed nursery held at the Botanical Gardens.

Greg Hoskins Executive member greg.hoskins@arc.govt.nz

#### **Central North Island Branch**

NI has had a good year with three meetings. We visited Stratford in September, hosted by TRC and took a field trip to look at the Lake Rotokare Reserve which is about to be enclosed with a pest excluder fence and also visited the gunnera sites among the herbfields on the coast and many inland riverbanks. We also had a look at TRC's new weeds database.

The March meeting in Taupo, hosted by EW, included a field trip around the weedy parts of Taupo, admiring the many species of wild cherry, particularly rum cherry and the pretty *Rhododendron ponticum*. The main items on the agenda were the NZBI constitution and RPMS progress.

The AGM was held in Rotorua in May, hosted by EBOP. We visited Lake Rotoiti to look at the work of a care group clearing weeds and revegetating the lake margin. Willie Shaw was elected Chair and Heidi Pene continues as Secretary/Treasurer. During the last year the branch has instituted a raffle at each meeting which has proved a small but useful fundraiser.

> Tim Senior Executive member, CNI Branch Tim.Senior@envbop.govt.nz

#### Lower North Island Branch

n May 10, the Lower North Island Branch got together in Palmerston North for our AGM. We discussed how members would like to see future AGM's run. The general consensus was that a two-day format including field trips was the preferred option.

It was also agreed that April was the most convenient time of the year due to workloads and so that plants would still be visible in the field.

A priority for the branch over the next couple of years will be to attract members from the vertebrate pest side of the NZBI to branch AGMs, in order to better reflect the Institute as a whole at the local level.

Most of our discussion this year was on the new Regional Pest Management Strategies that are now nearing completion and implementation. A common theme throughout the regions is an increasing emphasis on site-led projects such as bush remnant restoration.

Following our branch elections, Pedro Jensen takes over as Chair from Craig Davey (who takes up his new position as NZBI President) and Neil Gallagher is our new Secretary.

The big event for the Lower North Island Branch this year was hosting NETS 2007, another successful conference. A big thank you to members of the organising committee for all their hard work.

Finally, we farewell Stu Bennie who is leaving Hawke's Bay Regional Council after many years fighting the good fight against the weeds in Waipukarau.

> Ruth Fleeson ruth.fleeson@horizons.govt.nz

### News from the Branches Continued

#### Canterbury Branch — Quail Island day out

he picture says it all! It was heads down and bums up for Canterbury NZBI members, family and friends.

Sunday, August 19, put on a beautiful blue sky with a scattering of white puffy clouds for the 18 or so folk who turned up to help with Quail Island's planting regime.

The day started with a boat trip out to the island on a visually stunning morning at 9.30am, with well worked bodies heading home on the one and only boat trip back to the mainland at 3.30pm. It was nearly a long cold lonely night on the island for some of the Thacker family as the boat tooted its horn!

The overly efficient planting team had to find a new planting patch and were asked to slow down so there would be enough trees to plant next time! The lunch break at midday gave everyone time to explore a few of the island's attractions, including the "leper colony" and the "shipwreck graveyard". An enjoyable day was had by all.

The Canterbury Branch is looking at doing some

Planting in progress: From left, Caleb, John Thacker, Naomi, and Shonee getting native plants in the ground on Quail Island on a picture-perfect day.

Photo: Nick Ledgard

herbicide and planting regime trials on the Island in the near future.

Gemma Bradfield

gemma.bradfield@ecan.govt.nz

#### Otago/Southland Branch

his past year has been another quiet one for Otago/Southland.

Branch members from the Department of Conservation, Environment Southland and a MAF Biosecurity NZ guest were present for a boundary weed trip through Southland/Otago held in April. The trip's focus was on various weed issues in both regions and provided a constructive forum for open discussion, relationship building and a good meal, courtesy of Richard Bowman's barbecuing expertise. The benefits of talking and eating together should not be underestimated.

The branch AGM in June was held as a teleconference between a select few. Pete Raal and I carry on our roles as Secretary and Chair/Executive member. We discussed ways to engage others in the branch and the NZBI as a whole. The conclusion was we needed to provide a "point of difference" at the local level, otherwise people would carry on doing their own thing and not perceive any benefit in being involved. We are still working what this difference should be, but some ideas were floated and the members will make the effort to keep this in mind when relevant opportunities for branch activities arise. The branch is "tentatively excited" about hosting NETS 2009.

> Randall Milne Chair/Executive member randall.milne@es.govt.nz

## **Member Profile: Holly Cox**

Role:Biosecurity Officer – Parks Eco WeedsAgency:Auckland Regional CouncilEmail:holly.cox@arc.govt.nz

#### What are your former lives?

I have lived, studied and worked in the Auckland region for all my life. Since graduating with a Masters of Environmental Science in mid-2000, I have worked on contract for three Auckland district councils, the regional council, a consultancy firm and have had brief stints with the Department of Conservation.

The bulk of my work prior to now, was for Auckland City Council where I worked on inner gulf islands, mainly Waiheke, collecting baseline ecological data for the Hauraki Gulf Islands Natural Heritage Inventory.

In 2004 I decided to change direction, training as a secondary school teacher. I taught science and biology at a South Auckland secondary school for two years.

#### How did you come to work in biosecurity at ARC?

My first love is working in and for the environment. I started working at the ARC in February this year as a Biosecurity Officer, looking after the Auckland city area. I have recently started in my new role as the Parks Eco Weeds Officer. This involves working with park rangers and contractors to manage pest plants on regional parkland. I see my role as an important one as;

• The public can "judge" the ARC based on the weediness of our parkland.

• Some of the last near-pristine environments in Auckland are in regional parkland.

My role is one that is incredibly varied, allows me to be constantly learning, work in some astoundingly



Holly Cox on the job at Tawharanui.

beautiful environments, and work with very passionate and motivated people.

#### What is important to you about biosecurity?

From my point of view, an important issue related to managing biosecurity is further developing methodologies for predicting the future weediness of a plant. Ideally this would be something that would be done in conjunction with the horticultural industry. Too often in our jobs we are left with an ambulance-at-thebase-of-the-cliff scenario. Another incredibly important project is biological control science which needs to be more fully supported by central and local government.

#### **NETS2007**

## **Exposed at NETS**



Chris Laidlaw leads the NETS panel discussion, a first for the annual event.

he NETS committee "exposed" themselves as great conference organisers with friends in high places as the Wellington weather shone for three days.

George Ria welcomed the delegation with a karakia. He acknowledged support for the kaupapa of the conference stating that biosecurity is very important to Maori because of the potential threat unwanted organisms pose to toanga, particularly rongoa (traditional medicine) and mahinga kai (traditional food) species.

Welcomes were also given by Carolyn Lewis (now Past President NZBI) who challenged us all to "expose ourselves" to all areas of biosecurity while in Wellington; Kerry Prendergast (Major of Wellington) who shared her enthusiasm for the Wellington environment and lifestyle; and our Chair for the three days, Neil Mickleson.

Plenary speakers included Chris Laidlaw who set the scene with lyrical tongue bombarding us with questions about biosecurity becoming the great scientific problem of all time and promised spirited debate throughout the three days. "Are we living in a fool's paradise, could we ever hope to win? How much is enough? How much biosecurity risk is worth taking without being overly constrained by scientific and philosophical debate?"

Chris picked up the debate again later on, leading the first ever NETS panel discussion.

Subsequent plenary and concurrent sessions exposed delegates to a great array of topics, discussions and networking opportunities. The mix 'n' mingle and dinner conversation exposed even more, including our knowledge of the world's worst 100 pests, the outstanding work of Paul Champion and Deirdrek Meenhan, who both received standing ovations for their contributions to biosecurity (see Courage and Triumph awards) and some fine moves on the dance floor!

#### **Kirsten Crawford**



And when the business was all over...

## NETS2007: Field trip report Matiu/Somes Island



The weather gods shone down on the NETS2007 field trip members who went to Matiu/Somes Island where they familarised themselves with the island's history, flora and fauna.

t was a day out of the box as we set out on the commuter ferry for the short trip across the calm shining water to the island (the ferry service is provided by Greater Wellington Regional Council and is becoming a regular excursion). Biosecurity of course comes first and at the wharf is the "Rat House" where all visitors are required to check their gear and person for stowaways before leaving for the island.

We were introduced to the island and its history at the memorial by DOC ranger Bex Wolfe. Evidently there are usually two rangers in full-time residence. The island has had a fascinating and chequered history, from early Maori forays for food, to a quarantine station firstly for humans (1880s to 1920s) and then animals (until the 1980s). There are memorial records of those, often children, who died on the island. A Chinese man suspected of having leprosy lived out his days on a small isolated rock adjacent to the island. During the war the island became an internment camp for enemy aliens as well as a fortress guarding the harbour. In the 1960s a state-of-the-art animal quarantine station was built which is now abandoned. The buildings are all still



Bex showed us the nursery where many thousands of plants have been raised over the years for the re-vegetation of what must have been a near naked island. The planted "forest" is now quite substantial.



*This fine example of Matiu/Somes Island fauna, a giant weta, was found in the vicinity of the "motels".* 

there and one is available for rent by visitors.

The walk up the hill was interesting for the unusual assemblages of hebe and other unexpected natives. These were apparently planted by Forest and Bird in the days when eco-sourcing was not a familiar concept. The island is predator free and home to an increasing diversity of re-introduced species: kakariki could be heard chattering everywhere and it was obviously holiday season for giant wetas as the motels provided for them were packed. One of the field trip party even spotted a tuatara sunning itself next to the walkway!

There are very few things left on the island to "murder" — the mammals have all gone and the worst weed seems to be boxthorn. Heaven or hell for most of us? DOC staff now seem to be doing an awesome job of restoring both the historic cultural and natural heritage of the island.

It's a fascinating place and we highly recommend that those who have not been there to visit it.

Thanks to DOC staff and various others who shared their knowledge of the place and to the Victoria University School of Biological Sciences which sponsored the field trip.

#### **Tim Senior & Carolyn Lewis**

#### NETS2007: Field trip report

## Airport biosecurity and South Coast, **Owhiro Bay Restoration Programme**

ehind the scenes with MAF at the Wellington Airport saw many an NZBI member cooing over the sniffer dogs as they found various prohibited items among piles of bags and boxes. Beagles are perfect for the job because they love food and fun - it's all a game to them. They are also really non-threatening dogs, an essential quality for MAF canine "personnel".

After the beagle demonstration we moved on to X-rays and confiscations. extraordinary demonstration The X-ray showed us just how much MAF can see in passengers' bags. It didn't matter how well it was packaged — any organic material or peculiar shape was detected — and the technology is only getting better.

As the sun gods shone down we bused and walked our way around the south coast to see

penguin boxes among re-vegetation projects, dune restoration areas and the Owhiro Bay quarry site.

The barren and exposed quarry is no longer used and Greater Wellington Regional Council is trialling a number of different ways to establish native species on its slopes, including hydro-seeding. While it is a long process, everywhere we looked there was a surprising number of grasses and herbs colonising the area.

#### Kirsten Crawford



Confiscated goods included a kangaroo scrotum, parasitic caterpillars (food delicacy) and an elephant's foot, right, (an obvious issue for CITES).

How cute were the beagles? The job of sniffing for prohibited items at the airport is a game for intelligent canines.





#### NETS2007: Field trip report

## Parliament – an educational tour

ineteen keen NZBI delegates took the leisurely walk from the town hall to Parliament via Lampton Quay, to allow the "out of towners" to experience the metropolitan lunch rush.

After a security check, we met Errol, our tour guide. This man certainly knew his stuff and was the proverbial fountain of knowledge.

We were guided to the Beehive Reception Hall which featured a John Drawbridge mural made of painted aluminium strips, a shifting wall of colour. The rest of the Beehive (even Bellamy's Restaurant) was off limits to us but I believe it houses the offices of the Government ministers plus several dining rooms and reception areas.

It was then across to Parliament House and a bit of a push through the TV cameras and other media people NETS participants walk towards via another security check, into the waiting for the Speaker of the House, Parliament Buildings. Margaret Wilson, to make her grand

entrance with entourage to preside over the afternoon "guestion and answer" session. We were directed into the Grand Hall which was once the members' lounge, and presumably full of cigarette smoke and the clinking of billiard balls. Not a welcoming place for a lady in the days of yore.

A series of corridors took us into the bowels to view the earthquake-resistant design and foundation strengthening that was undertaken in the 1990s. Specially designed blocks of rubber and lead have been placed between the new foundations and concrete beams and they act like shock absorbers. This "base



isolation" technology helps isolate the building from its foundations. Each building is like a stiff box standing on flexible supports, making Parliament Buildings probably one of the safer places to be in the event of a large

earthquake.

More corridors and we arrived at the Maori Affairs Committee Room (Maui-Tikitiki-a-Taranga) which has an imposing carved entrance. Our guide waxed lyrical and was well versed in Maori history and folklore. The ambience and cultural recognition of the room was certainly impressive with carvings and tuku tuku (woven wall panels) that represent all tribes bound together by köwhaiwhai (painted rafter patterns).

Our travels took us through the library, past a grand series of portraits and photos, to the Galleria and then, Debating Chamber. We entered

towards the end of the day's question and answer session and if you didn't have supporting

literature supplied by the attendant sheriffs it was difficult (for me at least) to fully understand what was going on. Suffice to say it was "as seen on TV".

We left Parliament Buildings about 4.30pm. We never got to Te Papa. All that debating and gesticulating in Parliament had dried us out and the Brewery Bar was lacking custom. Once we were able to speak fluidly we agreed that the tour was a memorable and worthwhile experience. In the words of the managing director of Dilmah tea, "do try it".

#### Ray Clarey

## NETS2007: Field trip report Claybird shoot a hit

he claybird shoot was held at the Hutt Valley Gun Club in Whitemans Valley. Fifteen competitors with a range of experience took part, and were split into three teams. The teams were put through a variety of shooting scenarios, with broken clays flying in all directions. Every competitor broke a few clays, and there was tough competition for the top spot.

The best shooter on the day was Robert "Bash" Bashford, from Horizons Regional Council, breaking 22 out of a total of 25. Now involved with pest plants, Bash did admit to having worked as a "rabbiter" for quite a few years.

It was a great event in the Upper Hutt sunshine, and a good time was definitely had by all.

#### Ewan Kelsall

## **Thank you from the Chair**

nother NETS has started taking its place in history.

The organising committee trusts you all had an enjoyable and positive experience at Capital Exposure held in Wellington city this year.

Biosecurity is all about managing those living organisms that may have, or already are having, a detrimental effect on our environment. That is our challenge; "Looking after tomorrow's environment today". We hope you went away from the forum more inspired and better equipped to meet those everyday challenges.

The feedback we received from the evaluation forms was very positive. We required your assessment about programme content, venue suitability, the

quality of speakers, the relevance of and interest in field trips and workshops.

The committee is grateful for your comments and appreciates your time filling in the evaluation forms. Your comments generally supported most of the decisions we had to make. It's nice to get a pat on the back. Someone suggested we had some divine intervention with the weather for the field trips. Perhaps they were right. Thank you once again for your comments. The information you provided will assist future NETS organising committees as well.

Without sponsorship such events could not be held. Special thanks and recognition must be made to the



Neil Mickleson

major sponsors: Greater Wellington Regional Council, Horizons Regional Council, MAF Biosecurity NZ and Landcare Research NZ Ltd.

Thank you also to the many individuals who assisted the committee when we sought help, guidance and information.

Thank you to all of the speakers and session chairs. It is you who make such an event a success and you should be particularly proud of yourselves.

Many thanks also to onCue, a division of Nelson Tourism Services, the official conference organiser. They provided a professional service and were instrumental in ensuring that everything ran smoothly for your convenience.

But most of all, we offer a huge vote of thanks to you, the delegates, for attending and being part of NETS2007. The Organising Committee: Michelle Carson, Dave Bayly, Ray Clarey, Ewan Kelsall and Mike Urlich from Greater Wellington Regional Council; Victoria Lamb and Ben Reddiex from MAF Biosecurity New Zealand; and Craig Davey and myself from Horizons Regional Council hope we've been able to whet your appetite to ensure you'll be in Hamilton for NETS2008. We look forward to seeing you all there.

**Neil Mickleson** 

Chair, NETS2007 Neil.Mickleson@horizons.govt.nz

## NETS2008 HAMILTON — CALL FOR PAPERS

NETS2008 will be held at the Novotel in central Hamilton from July 23 to 25 — so put the dates in your diary!

The organising committee, chaired by Paul Champion, is under way brainstorming the conference programme including workshops, field trips and the all important food and bev'! By all accounts the first wine tasting has gone well!

If you are interested in presenting a paper, poster or workshop, please contact Carolyn Lewis email cl.sb@xtra.co.nz with a brief outline of your topic.

Thank you and watch this space for further information next issue.

## Gypsy moth vessel inspections in Japan

By Aaron Treadaway International Operations Manager, JEVIC,

Yokohama, Japan aaron.treadaway@jevic.co.jp

ith the fast and efficient flow of modern day logistic chains, the international transfer of invasive pest species is a serious issue. This is especially relevant to New Zealand but many other countries also have to ensure that cargo and conveyances do not pose a risk. One way to accomplish this is to undertake inspections off-shore, providing the benefit of an increased level of biosecurity assurance when reaching the border.

Recently Canada and the USA have come to an agreement with Japan for Asian gypsy moth (AGM) inspections of vessels to be conducted in Japan ports by third party inspection organisations. Building on the programme established in the Russian Far East, as from June 1, 2007, all vessels having visited a high risk port in Japan during the AGM flight season are required to possess a valid certificate of AGM freedom to enter Canadian or USA ports. Without this documentation the vessel will be required to go to a remote docking station for a full inspection prior to being permitted to berth and discharge cargo.

The discussions took place in Tokyo over a number of years. Although the United States Department of Agriculture (USDA) had evidence of this pest being transferred to the USA via an eggmass laid on a vessel while in Japan, the negotiations were not without their trials. These included submissions from those ports



An adult Asian gypsy moth (Lymantria dispar L).



Asian gypsy moth eggmass, photographed in Yokohama, Japan.



The port in Hakodate Bay, Hokkaiko, Japan.

designated high risk, questions over why Japan but not Korea or China, and an eleventh hour delegation to Washington.

JEVIC is one of the approved inspection companies. There are a total of six companies which can conduct the vessel inspections in Japan. With each having to undergo initial approval by the Japan Ministry of Agriculture, Forestry and Fisheries (MAFF), the training for the inspection companies was conducted jointly by the Canadian Food Inspection Agency (CFIA) and the USDA. JEVIC is also involved in facilitation of the NZ MAF Japan Pre-inspection Programme for used vehicles.

The Asian gypsy moth (Lymantria dispar L.) belongs to the family Lymantriidae, which includes the white spotted tussock moth among others, and is rated as a high consequence pest for forestry and horticulture. The natural range of this moth is from Europe across to Asia, and there are several strains including the AGM and the European gypsy moth (present in North America from accidental release by E. Leopold Trouvelot in the 1800s). The major differences of the AGM strain are that they have a larger host range, including conifers and hardwoods, and that the females can fly (which greatly increases the rate of population spread).

As the eggmass is the most probable life-stage able to cross borders, it is the egg-laying flight season that the required certification is concentrated on, with only vessels calling at high risk

### Gypsy moth inspection vessel inspections in Japan Continued

ports during the AGM flight season requiring the inspection. The high risk ports and corresponding flight season have been determined through population surveys



A member of JEVIC's personnel conducting an inspection.

conducted by Japan MAFF, at the request of the USDA. The flight season is from June to October and varies geographically, being later in the higher latitudes.

The USDA has been very active in pursuing this off-shore inspection requirement. As evidence is gathered as to the possibility of AGM being a recorded threat from other Asian nations, such as Korea and China, this inspection requirement may be extended in the future.

New Zealand MAF also goes to great lengths to ensure there are no incursions across our border. This includes the AGM Freedom certification requirement for vessels visiting the Russian Far East ports (for example Vladivostok), used vehicle and machinery inspections for units from Japan and pheromone trapping surveillance in NZ. This proved valuable as AGM was detected in New Zealand through this surveillance programme in 2003 (a live male found in Hamilton). After spraying and further trapping the moth was declared eradicated at a cost of over \$6.8 million.



An adult Asian gypsy moth laying an eggmass.



High risk ports in Japan

## **Conservation in the Emerald Isle**

#### By Greg Hoskins Biosecurity Officer Auckland Regional Council

arlier this year, my wife and I spent a month travelling around the Republic and Northern Ireland. Ireland is a beautiful country and has some fascinating and diverse flora and fauna. The people are very friendly and hospitable and the climate is mild, influenced by the warm waters of the Gulf Stream.

Since Ireland's entry to the European Union in 1973 its attitude has improved to environmental and conservation issues. The country is also going through an economic boom referred to as the "Celtic Tiger" especially since the troubles in Northern Ireland ceased about 10 years ago.

To protect indigenous species, Ireland's National Parks have adopted a number of conservation and management programmes to conserve the natural heritage in areas of the country, including its plant and animal life.

The Glenveagh National Park, in the north-west of County Donegal is the location of a golden eagle restoration project. Young eagles, imported from Scotland, are being released in the park in an attempt to re-establish the species there. The golden eagles were wiped out by farmers more than 100 years ago as they regarded them as pests because they killed lambs.

The early farmers felled the woodlands and the wolf and red deer were also driven to extinction by 1845. Red deer have now been returned to the park and numbers are managed to secure the health of the herd and the environment.

Rhododendron (*Rhododendron ponticum*) was introduced as an ornamental shrub to Ireland more than 100 years ago and is now naturalised and is invading many



Magellan fuchsia is widely naturalised in Ireland, especially along roadsides.



No longer just an ornamental shrub, Rhododendren ponticum is invading woodland and hillsides in Glenveagh National Park.

woodlands and hillsides, choking them with its dense growth. This exotic plant, native to the Black Sea region and parts of Spain and Portugal, has no natural enemies in Ireland where nothing will eat it. It spreads rapidly as fruit capsules contain numerous flat wind-dispersed seeds. Attempts to control it are being made in many areas by cutting and the application of herbicides. Elimination of this plant from national parks and wilderness areas is a conservation priority in Ireland. Also, rhododendron leaf litter alters soil chemistry, preventing a rapid return by native plants to areas cleared of the pest.

Other garden plants we saw widely naturalised in Ireland included Magellan fuchsia (*Fuchsia magellanica*), especially along hedgerows and roadsides, and Chilean rhubarb (*Gunnera tinctoria*) along waterways and in coastal areas.

Ireland has many remote and hauntingly beautiful areas especially along the west coast. I would recommend this country as a travel destination to anybody who likes wildlife, rugged mountains, pristine lakes and stunning coastal scenery. We found the Irish great hosts and also enjoyed the Irish music and local beverages.

#### New tools to fight pests

## **Cholecalciferol gel bait for possums**

Dr Dave Morgan, Senior Scientist Landcare Research Lincoln morgand@landcareresearch.co.nz

andcare Research scientists working with Kiwicare Corporation under contract to the Animal Health Board have developed a new cholecalciferol gel bait for possum control.

The gel bait can be left in operational areas over prolonged periods of time to keep re-infestation levels low and potentially lower long-term average possum

densities. It adds another tool to the box for maintenance and ground-work operations and where there are limits to using other methods, such as an aversion to 1080.

The key specifications for developing the bait were:

High palatability to possums

• Stability under field conditions for at least six months

• Low hazard to non-target species

• Availability without the need for a licence, to encourage wide usage

After designing, formulating and testing the stability of the gel formula, palatability tests were carried out using possums in captivity. Results showed an orange formula to be highly palatable, comparing favourably with industry-standard RS5 cereal pellets (Animal

Control Products, Wanganui). The next step was to set up field trials which took place in South Westland to assess how long the bait would stay palatable and toxic to possums.

The team collected samples of baits every two months for 26 months, assessed them for palatability to captive possums, and measured toxicant concentration. Gel bait containing cholecalciferol and presented in a purposedesigned bait station was by far the most durable option tested. It remained both palatable and toxic to possums even after 26 months' exposure in the field.

#### **Operational conditions**

To register a new possum control bait in New Zealand, it must be tested under field conditions. Possum populations at two sites in the Hopkins Valley, South Canterbury, were monitored by (i) trap-catch before and after control at both poisoned and non-poisoned sites and (ii) recapture of possums tagged during precontrol trap-catch. Control was conducted at each treatment site using non-toxic gel pre-feed in mid-April, followed a fortnight later by toxic gel bait containing 0.9% cholecalciferol. The baits were checked and replenished at intervals of decreasing frequency (i.e. 1 to 8 weeks) until late July.

Monitoring of interference at bait stations suggested that the population was reduced greatly within the first fortnight of toxic baiting: by early May. The team are confident the gel bait reduced the possum population by an estimated 81 to 100%, but because poachers removed some possums from the non-poisoned blocks, more precise estimation was not possible.

Use of the gel bait to achieve this level of kill cost about \$35/ha, which is similar to the cost of using other ground-based control methods. However, use of the bait could be more efficient, particularly where sustained control at low density is the aim rather than knockdown of a high density population, as was the case in the Hopkins Valley.

#### Non-target species

Test results show that the bait itself is unattractive and/or unpalatable to many species. The responses of 28 species were observed including a range of native birds (fruit and nectar eaters), invertebrates (weta, kauri snails, honeybees and beetles), skinks, and short-tailed bats. Of these, only three species (i.e. weka, kea, and kauri snails) fed appreciably on gel, compared with 11 species

feeding appreciably on an alternative apple paste. The solid, "rubbery" texture, makes the gel unattractive to nectar-feeders, such as tui or butterflies.

The bait is housed in a purpose-designed bait station fixed above ground and tests show less of the bait is spilt than other bait types. This reduces the risk to ground-dwelling non-target animals such as weka.

In addition, cholecalciferol poses a much lower risk to birds than, for example, 1080. A weka weighing 1kg would need to eat more than 300g of gel bait to receive an LD50 dose (i.e. enough to kill 50% of a random sample of weka).

Landcare Research is continuing to test the bait with a focus on using it for perimeter control after an intensive control operation that aims to eliminate possums within the area.

Please contact Dave Morgan for the full and associated papers or Martin Carson Kiwicare Corporation for information on No Possums Cholecalciferol Gel Bait.



Cholecalciferol gel

bait in purpose-

built bait station.

18

## New tools to fight pests **Endothol trials on hornwort**

#### Ben Winder,

**Biosecurity Officer** Greater Wellington Regional Council Benjamin.Winder@gw.govt.nz

collaboration uccessful between regional and district councils, MAF Biosecurity NZ, DoC and NIWA has gained ERMA approval to import and global consent to apply Endothall to hornwort (Ceratophyllum demersum). Endothall is used to successfully control hornwort in the United States. The liquid (Aquathol K<sup>®</sup>) and granular form (Aquathol Super K®) are now registered for use within New Zealand. Trials in the Wairarapa are the first to use the granular form within New Zealand.

#### Field trials

A trial site with a range of control wetlands and streams) has been set up on the north shore of Lake Wairarapa. The hornwort infestation was surveyed prior to application of Endothall to gauge whether any hornwort that remained after control was reinfestation or regrowth from plants unaffected by the Endothall.

Endothall in granule form was applied to the stream mechanically from a boat. Diluted liquid Aquathol K® was sprayed over the vegetation within the drains using a gun and hose method of application. Both formulations were applied to give a concentration of Endothall of 4ppm (parts per million) in the receiving water body.

NIWA staff took water samples from the stream at referenced points prior to and immediately after

then this will mean a control method will be available to use on hornwort in turbid water.

treatment. Monitoring will now take place to ascertain what effect the herbicide and decomposition of hornwort is having on the water quality in terms of dissolved oxygen, temperature, and pH. Regular site visits will also be undertaken to see what effect Endothall is having on controlling hornwort and the effects on other

Currently, control options are restricted to mechanical harvesting, which gives short-term control, Chinese grass carp, and the herbicide diquat. Diquat is not as effective in turbid water because it clings to suspended sediments in the water body, and on epiphytes on plant surfaces, which situations (hornwort choked drains, render it inactive. Endothol is not inactivated by suspended sediments.



Target species: Hornwort Ceratophyllum demersum.



aquatic vegetation. If results are favourable

## **Protect feedback evaluation**

Thank you to all those who filled out and returned the *Protect* feedback forms at NETS. We had more than 45 returns which is a great improvement on the last survey.

We asked you questions about format, content, when and why you read *Protect* and you told us:

- **50%** of respondents read the magazine online and have no problem accessing the file. The rest either print it out or do not yet have access to it (not yet Institute members).
- 81% of respondents spend up to 30 minutes reading the magazine with most people wanting shorter rather than longer articles (about one page) unless they are new topics or need extra time to explain the depth of the issue/research.
- All of the content is read either always or sometimes by the majority of readers. Members mainly read the magazine to keep informed on biosecurity issues and keep up to date on NZBI issues and events.

## We asked you what other information/ topics you would like to see in *Protect* and what changes you would like made. You told us:

- No changes please (several times)
- More case studies on biosecurity projects
- More animals, marine, invertebrate topics
- More science (and less science), summaries of biosecurity research and advice and how to source these

- · Hot topics with some background
- More international news

There were several responses from people who did not know about the magazine — the suggestion was made that we increase its profile.

#### What are we going to do with your feedback?

In the future with the upgrading of the website, *Protect* may become more of an online resource with links to scientific papers and other projects – although still be able to be read online and printed out.

We will look to broaden the range of articles; for example by having a round-up of biosecurity science and research papers but not full feature articles on all.

We will keep feature articles to less than two pages and bring in some shorter case studies on similar topics.

We will continue to keep you up to date with branch news, members and events around the country.

We will continue to seek your contributions and feedback! Thanks.

The printing of the hardcopy edition of *Protect* is kindly sponsored by





## New plants brought into the NPPA

he National Pest Plant Accord (NPPA) is growing slightly. As part of the review of the list completed in June 2006, the NPPA Steering Group recommended that the sale of some risk species could continue until either September 2007 or September 2008.

This was signalled to NPPA partners Department of

Scientific name	Common name/s
Akebia quinata	.Akebia, chocolate vine,
	five-leaved akebia
Aristea ecklonii	.Aristea
Lilium formosanum	.Formosa lily, trumpet lily,
	St Joseph's lily, Taiwan lily

Conservation, Regional Councils and the Nursery and Gardening Industry Association in January this year.

The accompanying table lists the species banned from September 2007.

The National Pest Plant Accord (NPPA) is a co-operative agreement between the Nursery and Garden Industry Association, regional councils and government departments with biosecurity responsibilities.

All plants on the NPPA are considered unwanted organisms under the Biosecurity Act 1993. These plants cannot be sold, propagated or distributed in New Zealand.

For more information see MAF Biosecurity New Zealand website: www.biosecurity.govt.nz/nppa

### Partnerships key to marine biosecurity work

AFBiosecurity New Zealand is the lead agency for marine biosecurity in New Zealand, but a collaborative effort between key agencies and stakeholders have helped build New Zealand's internal marine pest management capability. Here we look at two partnership programmes of interest.

#### Fiordland programme

MAFBiosecurity New Zealand has developed a partnership with DOC, Environment Southland, the Department of Conservation, the Ministry of Fisheries, and the Fiordland Marine Guardians. Together, these agencies are establishing a framework for co-ordinating the biosecurity responsibilities, interests, and activities of these agencies, and managing the full suite of biosecurity risks to the Fiordland marine environment.

An interim programme is currently being implemented to address immediate biosecurity risks to Fiordland. The interim programme includes:

- A targeted awareness and behaviour change programme
- Monitoring in southern ports of vessels that regularly visit Fiordland
- Vessel cleaning, and/or compliance checking; and

 Targeted cleaning of vessel mooring areas to provide clean mooring/berthing facilities at Bluff and Stewart Island for vessels regularly visiting Southland.

#### Didemnum programme in Marlborough

The marine pest, *Didemnum vexillum*, is an invasive sea squirt highly adapted to fouling artificial surfaces, including marine farms. It was introduced into the Marlborough Sounds via an infested barge in 2001, and was immediately recognised as a potential risk to the mussel farming industry.

In 2006, *Didemnum vexillum* spread to a mussel farm, smothering mussels and prompting the formation of a working group, consisting of mussel and salmon farmers, Marlborough District Council, Marlborough Port Authority, Queen Charlotte College, Cawthron Institute and MAF Biosecurity New Zealand. The working group developed and implemented a pest management plan, and each member contributed funding, expertise and resources.

The plan covered a wide range of biosecurity activities, including surveillance and monitoring, pest control, managing vectors and pathways, a communication programme promoting desired behaviours, research, programme management and review.

## Courage & triumph (in the name of biosecurity)

## New trophy awarded to vertebrate pest consultant

Diederik Meenken was the recipient of the inaugural Peter Nelson Memorial Trophy, awarded at NETS2007 by Sheryle Gregory, widow of the late Peter Nelson.

Diederik has made a great contribution to vertebrate pest control at both a regional and national level in the areas of policy and planning, public relations, operations, science, monitoring, technical support, research, and the development of best practice.

His science-based, practical approach to improving pellet and paste baits for possum control has set new standards for the industry, which means that tighter performance targets can now be achieved almost routinely.

He has been author or co-author of numerous scientific papers and technical reports, and most importantly, while always being guided by sound science, he has never lost his sense of logic and pragmatism.

He has been an indispensable link between the men and women in the field and the policy makers at regional and national level. Diederik is a private consultant based in Masterton.



Diederik Meenken, first recipient of the Peter Nelson Trophy, standing with trophy designer and carver Ray Weaver, a passionate conservationist.

Photo NETS2007 Committee.

## KeriKeri nursery scoops weed awareness award

The inaugural New Zealand Weed Wise Nursery Award went to Julia Colgan and Tom Lindesay, of Kerikeri Plant Production.

Julia and Tom have been in the nursery business for 20 years. Tom's interest in native trees began with wood-turning, continued through the building the family home in Kohukohu, and then moved into propagation and growing native plants.

They grow a diverse range of natives, including ferns from spores. The nursery is both wholesale and retail, supplying to other nurseries, landscapers, re-vegetation work and customers who require smaller numbers of plants for domestic plantings.

See their website: kerikeriplantproduction.co.nz



Weed Wise Nursery Award recipients Julia Colgan and Tom Lindesay, standing both sides of the sign, with staff from their nursery.

The closing date for nominations for the 2008 Weed Wise Nursery Award is April 30, 2008.

#### Courage & triumph (in the name of biosecurity) Continued

## Recipient pays tribute to man behind award

his year, Peter Ingram Award recipient, "legend" Paul Champion was overwhelmed to be presented with the annual award.

"I was really surprised and humbled by both receiving the award and also Tim's introduction and the standing ovation," Paul said.

"Peter was a very valuable friend and mentor during my early days at MAF/NIWA and is sadly missed, so receiving his memorial award was doubly special to me."

Paul cut his teeth in the plant world as a herbarium curator in the early 1980s. Later as a MAF advisory officer, he shared his wisdom with noxious plants officers throughout the country.

Paul has always been concerned with the big picture and helped to co-ordinate national programmes — but at the same time he has always found time to be involved with many of us at the "weed-face" in a hands-on capacity, trialling new techniques, assessing the weed potential of plants and assisting with their evaluation for inclusion in RPMSs.

Today, as a leader in his field, his research and management advice continues — even the Aussies have apparently called on his services — particularly in the field of freshwater biosecurity. His knowledge in this area is second to none and he's always happy to



Paul Champion, here pictured in Lake Koputara: "Thanks to those who nominated me, I hope I can continue to 'always learn and always teach' as Peter's award is inscribed."

share it.

Paul currently works with NIWA, is a member of many professional bodies and has been at the very heart of the Institute for many years. We have also just twisted his arm to be the Chair of the NETS2008 Committee!

### Possible insight into things to come

Western Weeds: A guide to the weeds of Western Australia, by B M J Hussey, G J Keighery, J Dodd, S G Lloyd, and R D Cousens (Weeds Society of WA {http:// members.iinet.net.au/~weeds/}, Western Australia, A\$35)

his popular (according to the blurb) book has undergone an extensive revision with an additional 56 pages. It describes about 1050 weeds, which along with 625 colour photos and 15 line drawings fills 312 pages.

Western Australia is a long way away from New Zealand but many of the weeds they have, we have too. Look at the cover, for example — arum lily at its best. You'll also recognise a lot of the other species featured here. But you have to be careful, because a lot of their weeds don't feature in New Zealand, and you can't use this book as a reliable identification guide to weeds here.

The other thing that can fool you is the botanical names, some of which are different in Australia from the ones we're used to here. They say *Moraea* for cape tulip, we still say *Homeria*. They still say *Hordeum murinum* for barley grass, but Volume 5 of our flora changed it to *Critesion murinum*. There are other examples too. Fortunately the authors usually give the earlier, and often better-known botanical names of species in the text.

Most of the book gives descriptions of individual species, grouped into families, which are listed in



alphabetical order within the major groupings of ferns, gymnosperms, monocots, dicots. The species descriptions are brief and to the point, mentioning the distinctive features of the species, its habitat,

where it is found in Western Australia, and where it originated. But you'll have to look elsewhere for details of plant characteristics. Almost all the photographs are of good quality, and the authors manage to tie photographs and species descriptions together on the same pages all the way through the book – no mean feat!

I always enjoy new books about weeds. I like admiring other people's weed problems, especially when they include weeds that may one day become problems in New Zealand. There are some of those to think about in this book. For Kiwis, Australia is like New Zealand in many ways, but a bit bigger, a lot drier and slightly hotter. Looking across the ditch can give us

some useful information on what our future weeds may be, given the expected global warming, which will make us warmer everywhere, wetter in some places and drier in others, and will increase scary events such as floods and droughts. Watch out for already well-established ones, like lantana and warm-zone grasses like Kikuyu grass, spreading steadily southwards. And as the climate warms, more garden plants will jump the fence and establish in the wild, and a proportion of those will become weedy.

#### Reviewed by Ian Popay

Dept. of Conservation