NEW ZEALAND ECOLOGICAL SOCIETY

Newsletter

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FROM THE EDITOR

Debra Wotton
Landcare Research
Lincoln
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Congratulations to Colin Meurk and team from Landcare Research for winning both a Gold Medal and the Supreme Award for Horticulture at the Ellerslie Flower Show this month. The exhibition, entitled "Transitions", showcased an astounding array of native plants, including a beautiful, lush tapestry lawn created in only three months. The judges commented on how well established the garden was and the exhibition was extremely popular with the public. Colin was awarded the NZES Ecology in Action award in 2006, and continues to make an outstanding contribution to promoting ecology to the community and local government.

On that note, nominations are now open for the 2012 NZES awards, including Te Tohu Taiao, Ecology in Action and Honorary Life Membership. Further details are available in this issue of the newsletter. If you know someone worthy of an award please make sure you nominate them.

In this issue's Illustrate Ecology John Flux reports what may be a novel mutualism. While trimming a *Lonicera nitida* hedge, John noticed an old bird's nest that appears to have facilitated the establishment of a new shoot. John says this also happens with *Hydrangea*, but hasn't been able to find any published research on this topic so far. Please continue to send in your newsletter contributions, and I will try and publish some of the many photos submitted for Illustrate Ecology in future issues.

The deadline for submissions for the next issue of this newsletter is Friday 8 June 2012.

ILLUSTRATE ECOLOGY

Plant/bird nest mutualism

An old hedgesparrow nest 0.8 m above ground in a *Lonicera nitida* hedge becomes permeated with roots, and a new vigorous shoot is produced from the rich nutrient source.
Photo: John Flux.

INSIDE:

2012 NZES ANNUAL CONFERENCE

Drs James Ross, Adrian Paterson, Hannah Buckley, Stephane Boyer & Tim Curran, Lincoln University

The conference organisation committee is pleased to announce that this year's conference will be held at Lincoln University during 25–29 November (these dates include a student day on the 25th and a field-trip day on the 29th).

The conference theme is "Is NZ Ecology on Solid Foundations" and we have already developed a number of symposium topics focusing on recent ecological research being undertaken in the Canterbury region. We now send out a call for other symposium topics. Suggestions are new, controversial or hot topics in ecology, or recently completed blocks of research. Priority would be given for topics that people are willing to facilitate and these should be sent in before **30 April**. Please email any suggestions to:

Dr James Ross, James.Ross@lincoln.ac.nz

A call for abstracts will soon be advertised on the NZES webpage. We will also send abstract information by email to society members. In the June newsletter, we will call for early bird registrations and provide more information on transport and accommodation.

2012 NZES Conference logo competition

We are looking for a logo to use for the conference that reflects the theme and/or the Canterbury region. We are running a competition for the logo. Please scan and send a copy of your logo to Adrian.Paterson@lincoln.ac.nz by **30 April**. There will be a $250 first prize (and the glory of seeing your picture on a tee-shirt).

At the moment this is the best that we have!

We would love to see your work.

Plese don't make us use ours!

CALL FOR NOMINATIONS: NZES AWARDS 2012

TE TOHU TAIO – AWARD FOR ECOLOGICAL EXCELLENCE

Nominations are invited for the Te tohu taiao award (formerly NZES award). This award is presented annually to recognise individuals who have made outstanding contribution to the study and application of ecological science. The award is made to the person(s) who have published the best original research in ecology of New Zealand, and its dependencies (including the Ross Dependency) or person(s) who have made the most outstanding contribution to applied ecology particularly conservation and management. NB. This award used to be presented to members only but a council decision in 2006 supported the recommendation to make non-members eligible.

Please email any nominations for this award to George Perry, george.perry@auckland.ac.nz **by 30 June 2012**. Nomination should also include a statement of support.

NZES ECOLOGY IN ACTION AWARD

This award was established to recognise individuals who are achieving excellence and best practice in the promotion of ecology, including communication, education and transfer of ecological science at the grass roots. The Society would like to recognise work of individuals achieved in promoting ecology and education at a local government level, with landowners, community groups, politicians and councils. This award is for individuals, whose role is primarily the transfer of ecology and research, but who are not necessarily involved in pure ecological research. This award reflects one of the primary aims of the society that includes promotion of the study of ecology and the application of ecological knowledge in all its aspects. The society also recognises that the transfer of ecological knowledge at a community and local government level is important in changing behaviours and achieving practical protection and restoration of biodiversity, particularly of our threatened lowland ecosystems.

The Society offers recipients:

1. $500 contribution towards attending the next NZ Ecological Society Conference;
2. $500 prize to the recipient.

Recipients of the award are invited to present a paper at the next annual NZ Ecological Society Conference. The work can also be given profile via a media item, or highlighted in the NZ Ecological Society newsletter. Nominations for this award should be emailed directly to George Perry, george.perry@auckland.ac.nz **by 30th June 2012**.

HONORARY LIFE MEMBERSHIP

Honorary life memberships are conferred from time to time to recognize excellence and longstanding service in the study or application of ecological science in New Zealand. Nominations should be presented to council, seconded and must include statements of support. The selection committee will consider candidates' eminence in the scientific field and contribution to original research or the application of such research in New Zealand and the extent of their association with the Society.

Please email any nominations for this award to George Perry, george.perry@auckland.ac.nz **by 30th June 2012**. Nomination should also include a statement of support.

NZES AWARD FOR BEST PUBLICATION IN THE NEW ZEALAND JOURNAL OF ECOLOGY BY A NEW RESEARCHER

The NZES awards an annual prize of NZ$1,000 for the best published paper of an ecological nature, by a new researcher in the New Zealand Journal of Ecology. This award is targeted at people at the start of their research career. The award will be announced at the Ecological Society's annual conference, and reported in the NZES newsletter as well as being posted on the NZES website. Authors wishing to be considered must meet the following criteria:

- Be the senior author or sole author of the paper
- Provide a short statement identifying the role each of the authors had in the publication
- Be a current member of the New Zealand Ecological Society
- Either currently be a student or have graduated within the last three years (for this year's award the applicant must have graduated after 30 June 2009), and be at the start of their research career.
- The paper **must** be published in the New Zealand Journal of Ecology.
- Only one paper per eligible author.

Authors wishing to be considered for this award should email a pdf of their publication **by 30 June 2012** to George Perry, george.perry@auckland.ac.nz. All applicants should supply a contact email and postal address and a summary to confirm they meet all the criteria for this award. All publications will be reviewed by a committee nominated by the NZES council. At the discretion of the nominated committee no award may be made in any given year.

ARTICLES

RARE RESTIAD WETLANDS: WAIKATO REMNANTS AND RE-CREATIONS

Monica Peters, Waikato Regional Coordinator, NZ Landcare Trust
Reprinted with author's permission from Trilepidea 98, January 2012

Simply put, *Sporadanthus ferrugineus* is unique. Cockayne in his excellent "New Zealand Plants and their Story" (1910) mentions the restiad being found "… in the far north… near Kaitaia". Today however, the distribution of *Sporadanthus* is limited to only three sites in the Waikato. Each site has its own characteristics: Moanatuatua Scientific Reserve, to the south east of Hamilton, is a straight edged piece that is surrounded by heavily drained fields while Torehape, situated on the Hauraki Plains, is part of a peat mine. Kopuatai Peat Dome (adjacent to Torehape) is the most complete restiad ecosystem and forms part of a vast mosaic of wetlands.

Sporadanthus ferrugineus at Kopuatai Swamp. Photo: Monica Peters, NZLT.

From the air, Moanatuatua looks quite extraordinary. It's like a brown coloured rug in a landscape largely dominated by the greens of a rye-clover landscape. Blueberry orchards add a bit more texture as do the odd windbreak or island of kahikatea. For all of its botanical and ecological value, the entry to the site is very low key. There are no signs. You just have to know which road to go down, which race to follow, which cowshed to pass before reaching a deep drain that requires a leap of faith to cross. Then you climb onto the site. Climb, because the surrounding landscape has sunk, oxidised with continual land development, dried out through a detailed latticework of drainage to make the land suitable for growing grass, cows and fruit.

Despite the fragmented nature of Moanatuatua, follow a rough path into the site and after very few meters you are surrounded almost without exception by native flora. Large clumps of *Sporadanthus ferrugineus* rise from a wiry tangle of *Empodisma minus*; the white flowering shrub *Epacris pauciflora* is another distinctive species found here. As for exotics, black berry and gorse just cling to the margins, unable to gain a foothold further into the site.

Torehape is a work in progress. While the peat is being carefully mined to supply the horticultural industry, the *Sporadanthus* cover being simultaneously restored following well established methods developed by Bev Clarkson (Landcare Research www.landcareresearch.co.nz/research/research_details.asp?Research_Content_ID=7). Because of the mined nature of the site, and the presence of a buffer of original vegetation, it was a matter of trapping the wind-borne seeds of *Sporadanthus* by using an initial cover of manuka. The results of the trials are impressive and restoration techniques have been further refined by the mine managers. Due to the rapid establishment of *Sporadanthus*, the site has been used to collect 1–2yr old plants for colonising new sites.

The final site, Kopuatai is unique on account of its size (10,201ha) and intactness. As a Ramsar site, its significance is also internationally recognised. At Kopuatai, the relationship between the low nutrient needs of Sporadanthus and peat dome structure can be better understood because the margins, unlike Moanatuatua, are still largely in place. Walk in from the surrounding farmland and the further into Kopuatai you venture, the greater the nutrient gradient – in this case from high on the margins to very low in the centre. The vegetation changes accordingly from willow and kahikatea to Sporadanthus co-dominating with *Empodisma minus*.

Given the scarcity of such an intriguing plant coupled with its function as a peat former, restoration was a logical step. The aforementioned Landcare Research trials carried out at Torehape paved the way toward recreating restiad dominated wetlands in other parts of the Waikato. The former Sustainable Management Fund supported a project to develop a feasibility study for restiad wetland recreation and then provided further funding to carry it out. The project was lead by the NZ Landcare Trust (www.landcare.org.nz) with technical guidance from Landcare Research. The 3 year project resulted in 2 sites successfully being established, with a third following using best practices learned through the experiments.

Sporadanthus ferrugineus ready for planting out. Photo: Monica Peters, NZLT.

The experimental sites at Lake Serpentine east to the south of Hamilton (and just a few km's as the crow flies from Moanatuatua), and Lake Komakorau to the north of Hamilton were set up to determine best practices and associated costs for doing the work. The sites were identified through a set of criteria which included environmental factors (…within the original range of the species? …has deep peat?), economic factors (….land available without needing to be purchased?) and social factors (… can be accessed by the public and used for education?).

An enormous amount has been learned in the process, namely, that *Sporadanthus* is quite a hardy plant and that young plants (1–2 yrs old) transplant readily. Of the approaches trialled (planting into herbicided grass/planting into milled peat; weeding/non-weeding), the quickest to establish were plots with milled peat. However, given the size of the *Sporadanthus* planted (1m+ tall) over time, few differences were noted between the "Rolls Royce" sites (milled peat, weeded) and a more basic low budget approach (herbicided pasture, no weeding). In addition to the experimental weeding treatment, we removed the more noxious weed species such as blackberry and grey willow (as well as vigorous natives including manuka and bracken) to prevent them from taking over. Nearly 5 years on, all experimental plots at both sites have nearly 100% restiad cover.

Planting *Sporadanthus ferrugineus*. Photo: Monica Peters, NZLT.

The project demonstrated that an initially slightly crazy idea (recreate a rare restiad wetland?!) can yield great results through creative thinking, great partnerships and a fair bit of spade work.

Further reading

Peters, M. 2007. Restiad Wetland Monitoring and Management Plans. Technical paper, NZ Landcare Trust, 62pp.

Peters, M. 2006. Action Plan for Recreating Rare Restiad Wetlands. Technical paper, NZ Landcare Trust, 38pp.

Reference

Cockayne, L. 1910: New Zealand Plants and their story. R.E. Owen, Govt Printer, Wellington.

WANDERING ALBATROSS ON GREAT BARRIER ISLAND

John Ogden reports a dead wandering albatross was found on Medland's Beach, Great Barrier Island on 30 December 2011—a fully mature bird at least 15 years old from its plumage pattern. The wingspan was 3020 mm and the body length 1150 mm. Although 'retired' John is involved in bird monitoring—especially New Zealand dotterel and black petrel. He is the chairman of a campaign to rid Great Barrier Island of rats and feral cats. For further details see: www.gbict.co.nz and look at the "State of Great Barrier Island's Environment" (under submissions/reports). Many people stopped by to see the albatross before it was delivered to local iwi, one of whom will use the soft white breast and back feathers in a traditional cloak.

John Ogden with wandering albatross.

KAURI FUND SEED SCHOLARS ATTEND ROTORUA CONFERENCE

Bruce Burns

The Kauri Fund is a capital fund set up by the Society so that interest generated from it can be used to promote ecology in New Zealand. The size of the Fund is steadily growing, and many thanks are due to members who have donated to the Fund over the 2011 year and previously. The Society would welcome further donations so that it can extend the range of benefits the Fund provides to members.

A Kauri Seed Fund Grant scheme was successfully run again in 2011 to allow promising undergraduates to attend the Rotorua NZES conference. This time NZES tried to target a more comprehensive range of tertiary institutes that run ecology courses, with each institute individually asked to find an awardee. Six awards were given out:
Brett Thompson, Northland Polytechnic;
Karen Middlemiss, Lincoln University;
Jane Sparkes, Unitec Institute of Technology;
Melissa Jager, Waikato University;
Ann-Kathryn Schlesselmann, Auckland University, and
Terriann Payne, BoP Polytechnic.

A further student was chosen by Victoria University, Lisa Arnold, but she unfortunately broke her arm just before the conference and couldn't attend. Feedback from the students attending the conference was universally positive and the Society hopes to see them back again in subsequent years.

One of the Kauri Fund Seed Scholars, **Jane Sparkes,** now in her final year of a Bachelor of Applied Science (Biodiversity Management) degree at Unitec Institute of Technology, describes her experience at the conference below: *'After applying for the Kauri Seed fund scholarship to attend the Ecological Society's conference in Rotorua last August I was delighted to be chosen - a chance to see in action what we had been learning for the past two years. One of the biggest highlights was before we even got there, stopping at Wingspan and seeing the hawks in action. The field trip across Lakes Tarawera and Rotomahana, and the walk up the Waimangu Valley geothermal area was amazing, if a little disconcerting being so close to so many active geysers! The main focus for me though was being amongst the people that are dedicated to maintaining New Zealand's ecological diversity and integrity, and realising we were all on the same page. As a student the chance to talk to all the researchers and scientists, and the networking, was invaluable. I would like to thank the Ecological Society for the scholarship and opportunity it gave me.'*

NZ FAUNA SMARTPHONE APP

Ryan Ghisi

NZ Fauna is the world's first mobile application showcasing New Zealand's native and introduced animals. The app was released on the Apple App Store and Android Marketplace about ten weeks ago under Kiwipedia, which is a not-for-profit charity. The NZ Fauna app is FREE and has already had over 3000 downloads.

NZ Fauna allows you to discover the incredibly unique array of native and introduced animals that inhabit New Zealand's land, sea and air. You can learn all about these species through beautiful images, interesting facts, amazing videos and stunning sounds.

The world's first mobile application showcasing NZ Fauna.

Young and old alike will be fascinated to see both well known and rare animals come alive at their fingertips. It's simple and intuitive design allows you to marvel at the high quality photos or quickly access detailed information.

Back in December 2010, Ryan Ghisi was sat on his sofa at home using his iPad, when his 2 year old son wrestled it from him. He was astounded at how quickly and easily his son picked up the basic use, just from having watched him. Ryan recalls "I downloaded some kid's apps and was amazed at how much Connor learnt and how well it complemented his education. I thought it would be a great idea to teach him all about the incredible array of animals we have here in New Zealand, but was surprised and disappointed not to find any NZ Fauna apps. Right there and then I decided I had to do something about that."

This decision set Ryan on a 12 month journey, which saw him spend countless late nights researching, designing and developing the idea. The not-for-profit company Kiwipedia Ltd was borne out of those early months as the vehicle for a series of educational mobile applications. "Right from the get go I had decided to create both a NZ Fauna and a NZ Flora app, but focused on the Fauna app to begin with. I established partnerships with DOC, Forest and Bird and Te Ara (Ministry of Culture and Heritage) and secured access to their text and media libraries. I was also extremely lucky to enlist the voice talents of environmental heavyweights Ruud Kleinpaste and Nicola Vallance."

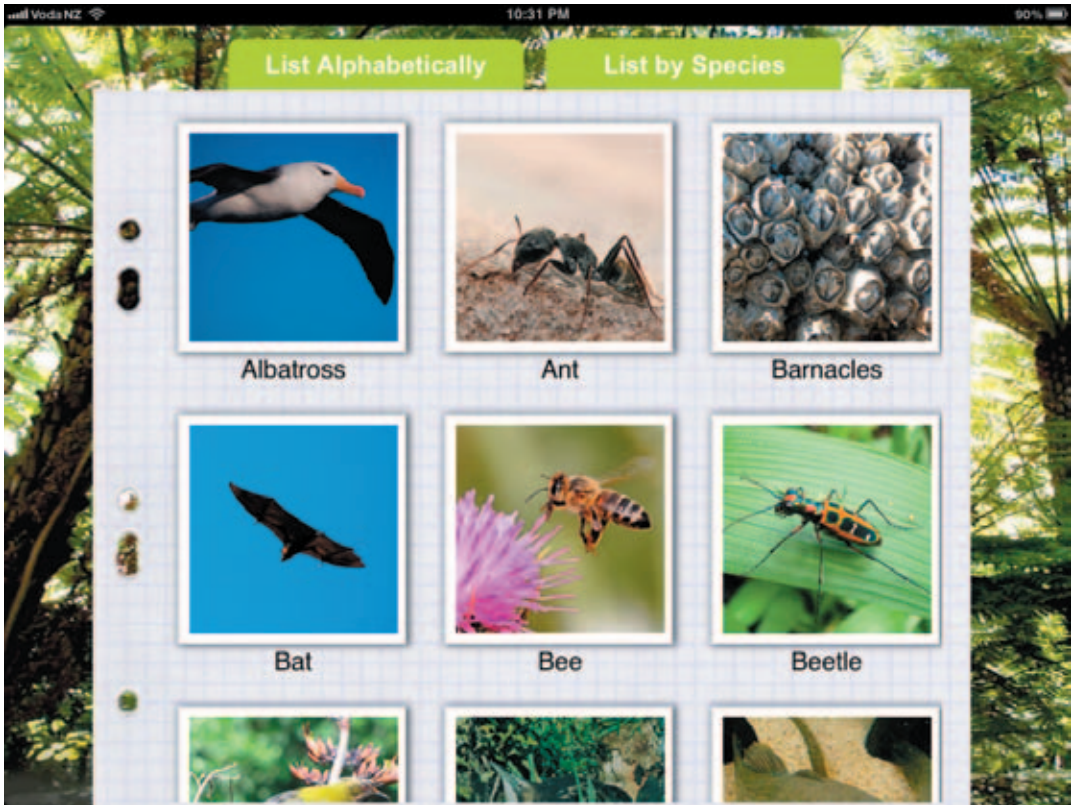
After five months of countless funding applications, the required development costs were obtained from three sources—the Air NZ Environment Trust, the ASB Community Trust and the Ministry of Culture and Heritage. Ryan recalls "I couldn't believe it when I received confirmation of the final funding I needed to get the app developed. I'd almost given up hope, but now I was going to see my vision realised."

Ryan enlisted Wellington based Touchtech to develop the app for Kiwipedia, Christchurch based Orly to record the voices and Auckland based Designahead to provide some design flair and Screentime to record the video demo.

"When I first started formulating the idea back in January, the intention was for it to be aimed at pre-school NZ kids. But I soon realised that an application aimed at showcasing New Zealand's fauna would be of great benefit to kiwis, both young and old. Then I thought, why limit it to New Zealanders? Tourists visiting New Zealand would find it extremely interesting and educational and it would allow them identify many of our native and introduced species."

Whether you're a kiwi, planning a trip to New Zealand or just curious about our local wildlife, NZ Fauna will give you the lowdown on all you need to know.

So where to next for Kiwipedia? Ryan explains "Following on the heels of NZ Fauna I'm working on a NZ Flora app, showcasing the vast and unique array of flowers, plants and trees we have here in New Zealand. Also, we've been working on a bird identification app for Forest and Bird, so keep your eye out for these over the coming months. I have lots of other ideas in the pipeline, but funding is always an issue." You can keep up to date with all the latest developments by visiting facebook.com/kiwipedianz."



Scroll through more than 110 NZ animals alphabetically or by species.

Each animal displays a beautiful high-definition image, spoken name, sound (where applicable), video and fascinating text, including classification.

You can download the NZ Fauna app from:
Apple App Store http://itunes.apple.com/nz/app/nz-fauna/id491142239?mt=8
Android Marketplace (now called Google Play) https://play.google.com/store/apps/details?id=com.kiwipedia.nzfauna

BOOK REVIEW

The Weed Control Handbook: *How to Identify and Manage Invasive Plants in New Zealand*

Reviewed by Nan Pullman, Environmental Consultant & QEII Trust Regional Representative

Weedbusters New Zealand
Publisher: New Holland Publishers (NZ) Ltd
ISBN: 978 1 86966 321 6
Published: 2011
RRP: $29.99
Format: paperback

The Weed Control Handbook is designed to help gardeners identify and control 100 of New Zealand's most invasive weedy plants and in so doing stop weeds spreading into natural areas. While there are various publications, fact sheets and web sites available to aid with the

identification of weed species this little gem provides the all important information on options to control specific weeds, which I have found for many landowners is really what they want to know.

A colleague working in biosecurity described this book as a cross between a Weedbusters *Plant Me Instead* booklet and Regional Council fact sheets. She thought it provided a wider understanding of weeds in a clear and concise format. Over the summer my copy of the Weed Control Handbook has been handed around various landowners as I visit their properties and it is has been interesting to watch as they quickly flick through the copy searching for weeds and then taking great delight in finding a suggestion for control.

Produced by Weedbusters New Zealand this small practical book (112, A5 pages) includes a brief introduction to the wider topic of weeds in the natural environment and how they spread before moving into a short technical section about different control methods and weed disposal for different types of weeds such as herbs and groundcovers, grasses, vines, shrubs and trees.

The majority of the booklet is divided into four colour coded weed identification sections that cover – garden weeds, groundcovers and fillers, climbers and vines, shrubs and trees. Each section lists plants alphabetically using common names first with Latin names underneath.

I particularly like the user friendly layout in the main section of the booklet because all the information and photographs for each plant is contained within one page. Two or three clear photographs, often a close-up of a flower or distinctive leaf as well as a wider landscape view of the plant *in situ* are placed at the top of each page with brief information below under the headings – "*Know it, Understand it, Control it and Replace it*". *Know It* generally describes the plant's distinctive features and the reason for its popularity in gardens. *Understand It* offers reasons for the plant's identification as a weed and describes how the plant becomes an issue in natural areas, usually explaining how the plant spreads. *Control It* recommends a number of ways to deal and dispose of the plant. This usually includes a manual option as well as, if appropriate, the types and rates of herbicide required for control. *Replace It* recommends native or non-invasive exotic species to plant once eradication is complete.

I have found this guide a useful tool for my work providing advice to landowners and covenanters who want practical information about how to deal with weeds. Its small size (A5) makes it easy to carry and the information is clearly and briefly set out. I would recommend it to landowners.

I think Weedbusters New Zealand have produced a valuable guide that achieves its aim of providing advice for gardeners in a non-threatening way. I think it may well help provide a broader understanding of weeds for a wider audience and assist people in realising the huge problem we have in this country when plants 'jump the garden fence' and end up in natural areas.

"Make your place a weed free space."

NEWS FROM COUNCIL

NZES Council and Future Planning

Mel Galbraith (President) and Bruce Burns (Immediate Past President)

In 2007, the Society commissioned a strategy for communicating ecological science (http://nzes.org.nz/node/57). The primary objective of this strategy was to improve the communication of ecological knowledge that would increase ecological awareness and facilitate better decisions in resource management. A number of the recommendations of this strategy have been actioned – namely the rebranding of the Society, the upgrade of the website and engaging media at our conferences – and the Council are continuing to implement further recommendations from this strategy.

In February, the Council held a planning meeting to explore wider aspects of the Society's functioning, of which communication is but one component, and how we might 'up our game'. Inspired by a strategic approach taken by the Ecological Society of Australia (http://www.ecolsoc.org.au/documents/ESAStrategicPlan2011-2015.pdf), the intention of the meeting was to review our operations and structure, develop strategies for the future direction of the New Zealand Ecological Society, and to be in a position to budget for the costs associated with such developments.

The broad areas covered in our discussions were governance of the society, membership, internal/external communication, financial management, research support and professional development. The end-point will be a 5-year strategic plan covering the years 2013-2018. We expect to have a draft strategy prepared by August, and to adopt the strategy at the AGM in November.

ACROSS THE TASMAN

National wildlife corridors plan proposed

The hot topic for ecologists in Australia at the moment seems to be a draft wildlife corridors plan, which proposes a national approach to connecting the Australian landscape across national parks, indigenous land and private properties to better protect biodiversity. Any plan would be paid for in part by a $1 billion biodiversity fund being established with revenue from a carbon tax, which will be introduced in July 2012. The draft wildlife corridors plan is now being considered by the Australian government and is available online at http://www.environment.gov.au/biodiversity/wildlife-corridors/index.html.

ECOTONES

Bruce Burns, Auckland University

A selection of newly published research on or relevant to New Zealand ecology (except that published in the New Zealand Journal of Ecology)

Kea are important seed dispersers not seed destroyers in alpine zones

Parrots are generally regarded as seed predators with consequently little role in seed dispersal of fleshy-fruited plants. A recent landmark study in New Zealand, however, has shown that kea do not destroy seed they consume but excrete them intact (Young et al. 2012), and therefore disperse them. This study not only showed that kea dispersed seed but that in alpine plant communities, kea were the most important extant avian frugivore. From observations of foraging and analysis of faeces, the authors concluded that kea used more fruiting species, consumed more fruit, and dispersed more seeds than all other birds combined. Kea were also the only species to make long-distance flights. The numbers of kea remaining are currently estimated at between 1000 and 5000 and are continuing to decline. This study has clearly shown that this drastic reduction in kea numbers may have much greater ecosystem consequences than expected.

YOUNG LM, KELLY D, NELSON XJ 2012: ALPINE FLORA MAY DEPEND ON DECLINING FRUGIVOROUS PARROT FOR SEED DISPERSAL. BIOLOGICAL CONSERVATION IN PRESS. DOI:10.1016/J.BIOCON.2011.12.023

Aircraft passengers carry unwanted immigrants

About 21.9 million people arrived in New Zealand international airports between July 2002 and June 2007 (about 4.4 million per year). Along with themselves, a conservative estimate is that on average these passengers brought in 1g of soil on footwear or other personal items (e.g., tents) per person. Over this number of passengers, many kilograms of foreign soil are reaching New Zealand airports each year where some of it, but not all, is intercepted. Is this soil a risk for New Zealand biosecurity and what quantities of foreign soil-borne organisms reach New Zealand by this pathway? McNeill et al (2011) have recently analysed the biota present in 155 soil samples taken off footwear of arriving passengers at Auckland and Christchurch airports. They found that on average every gram of soil contained very high numbers of bacteria and fungi, over 40 nematodes, more than two seeds, and occasionally a live arthropod. The species identified included many that were not known from New Zealand previously, and several known to be potentially harmful. The work demonstrates the need for continued interception of such soil but also the need to develop new methods to reduce risks associated with this global transport pathway.

MCNEILL M, PHILLIPS C, YOUNG S, SHAH F, AALDERS L, BELL N, GERARD E, LITTLEJOHN R 2011: TRANSPORTATION OF NONINDIGENOUS SPECIES VIA SOIL ON INTERNATIONAL AIRCRAFT PASSENGERS' FOOTWEAR. *BIOLOGICAL INVASIONS 13*: 2799-2815.

Masting leads to mouse irruptions in montane tussocklands too

Large population increases in mice are well known following *Nothofagus* masting events in New Zealand with their deleterious flow-on effects to increased stoat population levels then to increased predation rates of the native biota. Wilson & Lee (2010) have recently shown that this phenomenon also occurs in montane tussocklands following masting of snow tussock (*Chionochloa* spp.). This study followed alpine house mouse densities and snow tussock flowering abundance between 2002 and 2007 in Borland Valley of Fiordland National Park. The study coincided with a mast seeding event in snow tussocks during the summer of 2005/2006. The mouse population increased 10-fold following this event peaking in November 2006 and then crashing. Analysis of mouse stomach contents before and after the tussock mast showed high seed content in stomachs after the mast compared to almost nil before. Therefore, conservation managers should expect that mast years will lead to heightened predation risk in the following year for threatened native species in alpine tussocklands as well as in beech forest.

WILSON DJ, LEE WG 2010: PRIMARY AND SECONDARY RESOURCE PULSES IN AN ALPINE ECOSYSTEM: SNOW TUSSOCK GRASS (*CHIONOCHLOA* SPP.) FLOWERING AND HOUSE MOUSE (*MUS MUSCULUS*) POPULATIONS IN NEW ZEALAND. *WILDLIFE RESEARCH 37*: 89-103.

New classification of New Zealand's woody ecosystems.

Ecologists will welcome a new classification of New Zealand forests and shrublands recently published by Wiser et al. (2011). The classification is based on 1177 systematically located 20mx20m plots measured between 2002 and 2007 as part of a monitoring programme for carbon stocks in natural ecosystems, and is the first such new quantitatively-based classification for some time. The classification recognised 6 shrubland alliances and 18 forest alliances (5 of *Nothofagus* forest, 4 of *Nothofagus*-broadleaved forest, 4 of *Nothofagus*-broadleaved-podocarp forest, 4 of broadleaved-podocarp forest, and 1 of kanuka forest). This new classification more strongly recognises the diversity of forests in New Zealand dominated by *Nothofagus* or where *Nothofagus* is co-dominant with other taxa than previous classifications. However, it is also notable in not including a number of rare forest types, e.g., an alliance with kauri as a dominant, which may reflect the relative rarity of these forests in contemporary New Zealand, and therefore the low probability that systematically located plots occurred in these types of forests. This new classification, however, reflects the current state of common New Zealand forests more accurately than past classifications, which were often focussed on the presence of scattered, mature and emergent trees, and presents a new way of visualising the diversity and extent of New Zealand's woody ecosystems.

WISER SK, HURST JM, WRIGHT EF, ALLEN RB 2011: NEW ZEALAND'S FOREST AND SHRUBLAND COMMUNITIES: A QUANTITATIVE CLASSIFICATION BASED ON A NATIONALLY REPRESENTATIVE PLOT NETWORK. *APPLIED VEGETATION SCIENCE 14*: 506-523.

Birds on the grapevine? Rent-a-falcon is here

Birds are often a nuisance in vineyards because they eat a proportion of the grapes or damage them, which can cause subsequent fungal infection and loss. In New Zealand vineyards, blackbirds, song thrush and starlings remove whole grapes from bunches, whilst silvereyes peck holes in grapes. Up to 83% of a crop can be damaged even with physical or acoustic deterrents. Kross et al (2011) have recently reported on the effectiveness of the 'Falcons for Grapes' project in Marlborough in which chicks of the threatened New Zealand falcon are being established in vineyards. They compared numbers of grape-feeding birds and amount of damage in six vineyards with and six without falcon. Their results show that vineyards with falcons had significantly fewer introduced passerines and a 95% reduction in the number of grapes removed relative to vineyards without falcons. Silvereye numbers were not significantly different, however, but there was still a 55% reduction in the number of grapes pecked in vineyards with falcons. They estimate that relative to damage in vineyards without falcons, the presence of a falcon could potentially result in savings of NZ$326/ha for the Sauvignon Blanc variety of grapes and NZ$454/ha for the Pinot Noir variety of grapes. This is a great demonstration of the direct value of innovatively integrating indigenous biodiversity into production landscapes.

KROSS SM, TYLIANAKIS JM, NELSON XJ 2011: EFFECTS OF INTRODUCING THREATENED FALCONS INTO VINEYARDS ON ABUNDANCE OF PASSERIFORMES AND BIRD DAMAGE TO GRAPES. *CONSERVATION BIOLOGY 26*: 142–149

Other recent publications on New Zealand ecology

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Buckley HL 2011: Isolation affects tree-scale epiphytic lichen community structure on New Zealand mountain beech trees. *Journal of Vegetation Science 22*: 1062-1071.

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Duncan RP, Holland EP, Pech RP, Barron M, Nugent G, Parkes JP 2011: The relationship between possum density and browse damage on kamahi in New Zealand forests. *Austral Ecology 36*: 858–869.

Foster S, King C, Patty B, Miller S 2011: Tree-climbing capabilities of Norway and ship rats. *New Zealand Journal of Zoology 38*: 285-296.

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Low M, Makan T, Castro I 2012: Food availability and offspring demand influence sex-specific patterns and repeatability of parental provisioning. *Behavioral Ecology 23*: 25-34.

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Pawson SM, Brockerhoff EG, Watt MS, Didham RK 2011: Maximising biodiversity in plantation forests: Insights from long-term changes in clearfell-sensitive beetles in a *Pinus radiata* plantation. Biological Conservation 144: 2842-2850.

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Taylor, RB, Morrison MA, Shears NT 2011: Establishing baselines for recovery in a marine reserve (Poor Knights Islands, New Zealand) using local ecological knowledge. Biological Conservation 144:3083-3046.

Watt MS, Stone JK, Hood IA, Manning LK 2011: Using a climatic niche model to predict the direct and indirect impacts of climate change on the distribution of Douglas-fir in New Zealand. Global Change Biology 17: 3608-3619.

Wehi PM, Nakagawa S, Trewick SA, Morgan-Richards M 2011: Does predation result in adult sex ratio skew in a sexually dimorphic insect genus? Journal of Evolutionary Biology 24: 2321-2328.

Wotton DM, Kelly D 2011: Frugivore loss limits recruitment of large-seeded trees. Proceedings of the Royal Society B-Biological Sciences 278: 3345-3354.

RECENT STUDENT RESEARCH

LINCOLN UNIVERSITY ECOLOGY THESES 2010–2011

Contributed by Hannah Buckley, Lincoln University

Ph.D.

Baskarathevan, Jeyaseelan (2011) Botryosphaeriaceous infection in New Zealand vineyards: Identification, population structure and genetic diversity.

Probst, Chantal Michiko (2011) Cylindrocarpon black foot disease in grapevines: identification and epidemiology.

Sakata, Keisuke (2011) Forensic approaches to monitoring and individually identifying New Zealand vertebrate pests.

Amponsah, Nicholas Tabi (2010) Epidemiology of botryosphaeriaceous species associated with grapevines in New Zealand.

Gillespie, Mark (2010) The conservation of native New Zealand butterflies in the ecologically enhanced farming landscape of Waipara, northern Canterbury.

Harsch, Melanie Ann (2010) Treeline dynamics: Pattern and process at multiple spatial scales.

Hohmann, Pierre (2010) Understanding *Trichoderma* bio-inoculants in the root ecosystem of *Pinus radiata* seedlings.

Malumbres Olarte, Jagoba (2010) Spider diversity and ecology in native tussock grasslands of the South Island, New Zealand.

Murray, Tara J. (2010) Effect of physiological and behavioural characteristics of parasitoids on host specificity testing outcomes and the biological control of *Paropsis charybdis*.

Tompkins, Jean-Marie (2010) Ecosystem services provided by native New Zealand plants in vineyards.

Trivedi, Rajan Kumar S. (2010) Strategies to control *Alternaria radicina* in carrot seed production.

M.Sc.

Hansen, Cara M. (2010) Movements and predation activity of feral and domestic cats (*Felis catus*) on Banks Peninsula.

He, Shu-qi (2010) Pest risk assessment of light brown apple moth, *Epiphyas postvittana* (Lepidoptera: Tortricidae) using climate models and fitness-related genetic variation.

Lindsay, Karel Richard (2010) The impacts of climate change on the summerfruit industry with respect to insect pest incursions.

Meffin, Ross (2010) Invasion success and impacts of *Hieracium lepidulum* in a New Zealand tussock grassland and montane forest.

Minchin, R. F. (2010) Effect of a *Trichoderma* bio-inoculant on ectomycorrhizal colonisation of *Pinus radiata* seedlings.

M.I.N.C. (Masters of International Nature Conservation)

Cochrane, Phillip J. (2011) Variation in infection status among bird populations, and its implications for the successful co-introduction of parasites in bird translocations.

Tan, Haojin (2011) Habitat use and population dynamics of the Azure-winged Magpie, *Cyanopica cyanus*, and their response to fire in Northern Mongolia.

Staley, C. E. (2010) Modelling of above-ground and below-ground carbon in a New Zealand native forest at a watershed scale.

THE NOTICEBOARD

EMR CALL FOR SHORT NOTES

ESA's journal 'Ecological Management & Restoration' is particularly calling for (1500-word) short notes to be submitted for peer review and potential publication in future issues. Topics and content must be highly relevant to the improved management or restoration of indigenous ecosystems. Short notes ideally contain only one figure or table and no more than 10 references. Other manuscript types such as research reports or features (5000 words) or comments are also always welcome. Submission of all manuscripts is now all done online at http://mc.manuscriptcentral.com/emrj

INTECOL 2013 — CALL FOR WORKSHOPS

The organizers of INTECOL 2013 are calling for applications for workshops to be run at the conference. The deadline for workshop applications is **26 July 2012**. Application forms are available at www.intecol2013.org/26_CallforWorkshops.html

NZ JOURNAL OF ZOOLOGY SPECIAL ISSUE CALL FOR PAPERS

The effects of wind energy generation on wildlife

The use of wind energy, as an alternative to fossil fuels, has increased worldwide in recent years. It currently accounts for some 4.2% of NZ energy generation, predicted to rise to 20% by 2030. However, some research has shown negative effects of wind turbines on both bats and birds. It is timely to consider the evidence for wider impacts of the burgeoning wind energy industry.

In this special issue we seek NZ and international contributions that will encourage a better dialogue and understanding of how wind energy developments affect wildlife. We welcome papers on any aspect of wind energy and wildlife, including:

- Effects on birds, particularly migratory and predatory species
- Effects on bats
- Effects on other animals
- Modelling
- Mitigation

Please see our Information for Authors for full details of how to prepare submissions:
www.royalsociety.org.nz/publications/journals/authors/instructions/
Please direct any enquiries to Dr Stuart Parsons: s.parsons@auckland.ac.nz
The deadline for submissions is **1 July 2012**.
Submissions of manuscripts up to 5,000 words can be made directly to our ScholarOne online portal at: http://mc.manuscriptcentral.com/nzjz

WANTED: PAPER WASPS (*Polistes*)

By Darren Ward, Landcare Research

We are updating the distribution of the Asian Paper Wasp (*Polistes chinensis*) and the Australian Paper Wasp (*Polistes humilis*) in New Zealand.

I would be grateful for information on the species identity and locality/date. A photo of the specimen/nest would also be useful. Wasps can be sent if you are unsure of the species' identity. Further information can be found at www.landcareresearch.co.nz/research/biocons/invertebrates/Wasps/distribution.asp

We are particularly interested in sightings from the lower North Island and the South Island. Paper wasps are most active over the summer period but begin making nests in spring.

Please send info, photos or wasps to:

Darren Ward, Landcare Research, Private Bag 92170, Auckland (wardda@landcareresearch.co.nz).

Asian paper wasp (Polistes chinensis)

Australian paper wasp (Polistes humilis)

CHARLES FLEMING FUND—CALL FOR APPLICATIONS

The Royal Society of New Zealand is now calling for applications for the following awards:

- Charles Fleming Fund - Senior Scientist Award
- Charles Fleming Fund - Publishing Award

The closing date for applications is **31 March 2012**. Information on these awards and the application form are available on the Society's website: www.royalsociety.org.nz/programmes/funds/fleming/

Tāne's Tree Trust
Native Trees for the Future

STUDY TOUR 2012 — EUROPEAN SUSTAINABLE FORESTRY

This study tour led by Tane's Tree Trust trustee and Loder Cup winner Mark Dean will take place in September 2012. The fully guided tour will visit Germany, Italy, Scotland and England, visiting areas where sustainable forest management has been practiced for centuries in some cases. Mark Dean is organising the itinerary and House of Travel are managing the travel. Mark would like expressions of interest for the trip this year and suggests this is a very good way to spend your SKI money.

Please contact Mark Dean at mark@naturallynative.co.nz or telephone him at 07 543 1494.

DONATE NOW! KAURI FUND FOR ECOLOGICAL SCIENCE

We invite you to help grow the science of ecology in New Zealand by contributing to the NZES Kauri Fund. This fund was established in 2001 to provide resources for initiatives that assist the development of ecology and ecologists in New Zealand. As the Fund grows, it will play an increasingly critical role in advancing the Society's goals and fund exciting new initiatives for New Zealand ecology.

Please consider a contribution, whether $10, $20 or $50, to the Kauri Fund now or at the time you renew your subscription. You can make your contribution to the Kauri Fund in two ways:

Send a cheque made out to the "NZES Kauri Fund" to the New Zealand Ecological Society, PO Box 5075, Papanui, Christchurch 8542.

Use internet banking, to credit your donation to New Zealand Ecological Society, bank account 06 0729 0465881 00, identifying the payment as "Kauri Fund".

UPCOMING MEETINGS

NZ Association of Scientists: early career scientists
16 April 2012

Rutherford House, Wellington

The conference is targeted at emerging scientists, their existing and potential employers, their mentors, future emerging scientists, policy makers and politicians.
Speakers include the Hon Steven Joyce (Minister for Economic Development, Minister of Science and Innovation, Minister for Tertiary Education, Skills and Employment and Associate Minister of Finance) and David Shearer (Leader of the Labour Party, Spokesperson for Science and Innovation).
www.scientists.org.nz/event/2012/2012-nzas-conference

MMM3: Meeting on Mangrove ecology, functioning and management.
2–6 July 2012

Galle, Sri Lanka

www.vub.ac.be/APNA/greendyke/MMM3/

IV International Wildlife Management Congress
9–12 July 2012

Durban, South Africa

www.iwmc2012.org

International Association of Vegetation Science 55th Annual Symposium
23–28 July 2012

Mokpo, Korea

Theme: "Climate Change and Vegetation Science".

Papers on all aspects of vegetation science welcome. Sessions will address new theory, methodology and application of vegetation ecology at a range of spatial and temporal scales. A particular focus will be vegetation diversity and dynamics in natural and cultural landscapes of coastal-island regions in the context of global climate change.

Abstract deadline: 31 March 2012

Ecological Society of America 97th Annual Meeting
5–10 August 2012

Portland, Oregon

Theme: Life on Earth: preserving, utilizing and sustaining our ecosystems
Abstract deadline: 23 February 2012

7th World Congress of Herpetology
8–14 August 2012

Vancouver, Canada

www.worldcongressofherpetology.org

Society for Conservation Biology, Oceania Section
21–23 September 2012

Charles Darwin University, Darwin

Conference deadlines:
Symposia submission: 15 March 2012
Abstract submission: 30 April 2012
Early registration: 1 July 2012
www.conbio.org/Sections/Australasia

Aboveground-belowground interactions: technologies and new approaches
Joint meeting of the British Ecological Society, the Biochemical Society and the Society for Experimental Biology
8–10 October 2012

London, UK

Abstract deadline: 13 August 2012
Early registration deadline: 10 September 2012

NZ Ecological Society Conference
25–29 November 2012

Lincoln University

Ecological Society of Australia Conference
3–7 Dec 2012

Melbourne, Victoria

Theme: 'Ecology: Fundamental Science of the Biosphere'

INTECOL 11 Congress
18–23 August 2013

London, UK

Theme: Ecology—Into the Next 100 Years
Deadline for workshop applications: 26 July 2012
www.intecol2013.org/

VII Southern Connection Congress
Theme: Southern lands and oceans: Life on the edge?
21–25 January 2013

University of Otago, Dunedin

Symposia submission deadline: 1 May 2012

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This Newsletter was produced by Debra Wotton and Jeremy Rolfe.

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Debra Wotton
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P.O. Box 40, Lincoln 7640

Next deadline for the newsletter is Friday 8 June 2012.

MEMBERSHIP

Membership of the society is open to any person interested in ecology and includes botanists, zoologists, teachers, students, soil scientists, conservation managers, amateurs and professionals.

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Full (receive journal and newsletter) ..... $80* per annum

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Overseas Full ..... $105* per annum

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Institutional (Australia & South Pacific) ..... $NZ130* per annum (incl. GST and postage)

Institutional (Rest of World) ..... $US80* per annum (incl. air postage)

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* There is a $10 rebate for members who renew before Feb 15 each year, and for new members