NEW ZEALAND ECOLOGICAL SOCIETY

Newsletter

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ILLUSTRATE ECOLOGY

The orange lichen Xanthoria parietina is well-known for its high nitrogen requirement, and consequent association with bird perches, from the arctic to temperate coasts. Concrete buildings used to store munitions in WW 2 at Belmont, Lower Hutt, have been used in a starling study since 1970. The 500 nest-boxes placed in 42 buildings resulted in alternate panels turning orange within 2 years, and the pattern persists (photo taken 1982). Note the uniform orange roof edge, and splash zone at ground level. Readers more interested in the starling results can Google "John Flux Manhire".

INSIDE:

Newsletter Editor: Jane Gosden. E-mail: newsletter@nzes.org.nz
Layout and design: Jeremy Rolfe
*The deadline for submissions for the next issue of this newsletter is **Friday 5 December 2014**.*

FROM THE EDITOR

Kia ora and welcome to spring and what a fantastic start to the season it has been. Here on the West Coast we've had a record period with no rain. The lack of rain made for a perfect start to the field season, which I am sure many of you are also gearing up for. With the arrival of spring I always start to think about recording flowering patterns in plants. These thoughts are mostly prompted by the brilliant white patches of *Clematis paniculata* that appear in the trees along the roadsides here on the Coast. Two websites are well set up for the 'citizen science' approach of recording flora & fauna observations:

- The New Zealand Pland Conservation Network (http://www.nzpcn.org.nz/) – who are currently running a campaign to record the first and last sightings of either (or both) kowhai or *C. paniculata* this spring across the country.
- Nature Watch NZ (http://naturewatch.org.nz/) – which accumulates a phenomenal number of observations every day on all manner of organisms from all over New Zealand.

Both websites continue to impress me with the sheer number of observations they receive everyday.

Continuing with the website theme, the new New Zealand Ecological Society website has now gone live. I strongly encourage you to have a look if you have not done so already: http://newzealandecology.org/

NZES CONFERENCE 2014

16–20 NOVEMBER, MASSEY UNIVERSITY, PALMERSTON

Plans are well under way for this year's conference, to be held at the main campus of Massey University, on the outskirts of Palmerston North.

Abstract submission is now open - format and a submission portal are on the webpage. Abstract submission closes at the same time as the Early Bird registration - on **1 October**, so we look forward to hearing from you. Early-bird registration costs are $570 for professionals, and $240 for students, and includes the conference dinner, and, for students, the student session on the Sunday. After 1 October, the prices go up (to reflect the increased stress on the organisers) so get in early!

Our conference theme for this year is "Is New Zealand the world's invasion hotspot?", and we have several symposia planned which are related to that theme:

Hybridisation: invasion, assimilation, adaptation

Organiser: Mary Morgan-Richards

Species invasions and hybridisation are linked in a number of ways. This symposium will focus on the assimilation of foreign genes in a range of systems and the advantage that hybridisation might confer on potential invasive taxa.

Border biosecurity stocktake: Invasions of invertebrates and pathogens

Organisers: Ecki Brockerhoff, Beccy Ganley and David Teulon

This symposium will explore invasion trends in New Zealand and other countries, highlight case studies, and review ecological impacts and opportunities for improving border biosecurity to reduce the rate of future invasions.

Urban invasions

Organiser: Jill Rapson

Urban biotas provide insights into the mechanisms for invasion. This symposium will offer an opportunity to overview what is known about the biota of New Zealand urban areas, and how they compare with overseas.

Invasive pest management

Organiser: Paul Barrett

The symposium is planned to include biological control of invasive weeds and pests. It may also include chemical control of weeds as well as mapping, GIS and modelling of invasions or control programmes.

Other symposia are on offer on more general topics, in addition to those related to our conference theme. These are:

- **De-extinction**
  Organisers: Phil Seddon and Phil Battley
  Technological advances have opened up the prospect of species de-extinction, the resurrection of extinct species. DeExtinction recently burst upon the public scene prompting vigorous debate over this radical new conservation approach.
- **Restoration of vegetation**
  Organiser: Tessa Roberts

Ecological restoration requires the need to replace and suppress invasive species on site. This symposium aims to look into the challenges involved in reversing the native: exotic ratio and present some scientifically sound yet practical solutions.

- **Metagenomic approaches to understanding ecosystems and biodiversity**
  Organiser: Jamie Wood
  Metagenomics from substrates such as soil, sediment, water, faeces can provide important insights into patterns of biodiversity and ecosystem function. This symposium is devoted to presentations that focus on metagenomic techniques and technology relevant to ecology.
- **Evolutionary ecology**
  Organiser: Liz Daly
  This symposium explores the interplay between the ecological causes of evolution and the evolutionary implications of population and community processes, with a focus on palaeontological or other historic data, including use of molecular tools.
- **Tussock grassland dynamics**
  Organisers: Matthew Krna and Matthew Dickson
  Understanding tussock grassland dynamics in a world governed by anthropogenically mediated change will enhance conservation efforts. This symposium allows opportunities to present findings on New Zealand's tussock grasslands.
- **Migrations**
  Organiser: Phil Battley
  Lots of animals migrate, but they are often understudied. For example, what about cost-benefit relations? How do migrants coexist in their overlapping habitats? Are migrations like invasions, in that they have impacts on resident biota?
- **General contributions**
  Organiser: Jill Rapson
  A number of presentations will probably not fit into the above symposia, but will be organised as possible, into appropriate groupings.
  We have six keynote speakers attending, all of whom are known for offering challenging ideas and visions on the nature and future of ecology. These include:
  Ken Thompson, University of Sheffield. Keith has been a long-term leader within the Unit of Comparative Plant Ecology there, and has published widely on invasives, including writing for the general public. He will be talking on "Invasive alien species; getting the measure of the problem".
  James Russell, University of Auckland, is one of our young and upcoming scientists. With an increasing reputation on achieving and maintaining pest-free status on islands, and restoring terrestrial animal communities. He is talking on "Is New Zealand the World's eradication hotspot?".
  Ragan Callaway, University of Montana, has researched on a wide range of topics, but of particular interest to us is his work on the range shifts of invasive species.
  Rachel Gallagher, Macquairie University, is another young and upcoming scientist, who works on a combination of trait-based and modelling approaches to try and pre-empt future invasion scenarios.
  Chris Johnson, University of Tasmania, the AERA speaker for this year, has relevant research interests on impacts of invasive species on native biodiversity, and the ecological management of native and invasive species in the novel assemblages

Field trips

For those of you who like to link theory with practise we offer a choice of interesting field trips run by local ecologists, visiting their research sites or area influential to their thinking. All are an economical $67 each (because we know you will chop and change at the last minute!), and include an excellent lunch. These are:

Manawatu bush remnants and restoration projects

This excursion will visit several local forest remnants which are world-leading in terms of restoration planting and successfully so. These include Keeble's Bush, a 17 ha reserve of lowland podocarp forest which is not open to the public.
Leaders: Keith Young and Roger Purchas
Duration: 9:00am – 4:00pm; Driving: 20 km; Walking: 1km.

Managing invasive plants of the Volcanic Plateau

A number of sites will be visited on the Central Plateau to look at progress on biocontrol of heather and work being proposed for the control of legumes (broom, gorse and tree lupin), including a major initiative by several regional stakeholders to map and manage broom invasion.

Leaders: Paul Peterson and Paul Barrett

Duration: 8:00 am – 6pm. Driving: 420 km. Walking: 3–5 km.

Manawatu River estuary and beach

This coastal trip will start with a visit to the Manawatu River estuary, a nationally important home to shorebirds, to be viewed at high tide, before a trip upriver into 'Fernbird Flat'. After lunch we will take a drive along the beach to see some of the most rapidly prograding transgressive sand dune systems in the world, and drying ephemeral wetlands

Leaders: Phil Battley and Jill Rapson

Duration: 8:00am – 5:00pm. Driving: 90 km. Walking: 3–4 km.

Ecology of Manawatu rivers and streams

This trip will visit a number of freshwater sites in the Manawatu to look at water quality issues in both rural and urban streams (and a lake if time permits). Electrofishing techniques and fish identification will be demonstrated. Issues around flood management of the Manawatu River will also be included in the day's outing.

Leaders: Mike Joy and Ian Henderson

Duration: 9:00am – 4:00pm. Driving: 140 km. Walking: 2–3 km.

And of course our conference starts with the traditional student Sunday, where Tess and Melanya have some fun times planned. For the rest of us there is a small meet-and-greet on Sunday afternoon where you can "register" in advance of the first day of presentations.

For those needing a post-conference recovery period, try our Writers' Retreat, where there will be time, space and atmosphere to help you with your writer's block, and lots of editorial experience to help you with your composition!

Check out the webpage for details on www.nzes2014.org. Please contact the organisers Phil (P.Battley@massey.ac.nz), Paul (D.P.Barrett@massey.ac.nz) or Jill (G.Rapson@massey.ac.nz) if you have any queries or suggestions. Don't forget that looming deadline. We look forward to seeing you all there!

CONFERENCE & WORKSHOP REPORTS

AMERICAN SOCIETY FOR MICROBIOLOGY (ASM) EXPERIMENTAL EVOLUTION CONFERENCE

Zachary Ardern, PhD candidate, School of Biological Sciences, University of Auckland

In June I attended a special conference on experimental evolution organised by the American Society for Microbiology in Washington DC. It was the first special conference run by the ASM in this growing field and it was enthusiastically received. Adaptation can happen very quickly, and evolutionary processes can be rigorously explored in the lab using microorganisms, to test hypotheses which have broad application; of course I'm biased, but I think what happens at the micro scale should be of interest to all biologists.

Approximately 150 scientists working in experimental evolution across a range of microbial organisms gathered in the Omni Shoreham Hotel for three days of fascinating sessions. Personally, it was surreal to put faces and personalities to what had previously just been names in my reference list and to realise that high profile science really is done by real people, many of whom have interests and ideals beyond their own research output.

One of the plenary speakers started the conference off by challenging the community's emphasis on simplistic neo-Darwinian processes, stressing that we need to make room for sometimes-controversial ideas like epigenetic inheritance, and to not be afraid to test and reject hypotheses which have been taken for granted. Further topics of particular interest for me ranged from results from Richard Lenski's famous long-term evolution experiment in *E. coli*, to a detailed mapping of the fitness landscape in short RNA sequences, and analysis of gene copy number variants in yeast. I was privileged to receive a grant from the ASM and to be able to speak on my research on variants in sexual and asexual populations of *Saccharomyces cerevisiae* on the Saturday.

Washington DC in summer was a shock; oppressively warm in contrast to Auckland's winter, but a great experience. Following the conference I spent another 5 weeks in the US and Canada, which involved visiting an advisor at McGill University in Montreal, and break time including a conference for Christians in science near Toronto, and some time with friends at Harvard. Overall it was a brilliant experience that has given me a bigger picture view of scientific research.

99TH MEETING OF THE ECOLOGICAL SOCIETY OF AMERICA (ESA)

Angela Brandt, Landcare Research

The 99th annual meeting of the Ecological Society of America, was held in Sacramento, California, 10–15 August. As is commonly noted, the ESA conference is quite large (though this year it was relatively small, with ca. 3000 attendees) and can be difficult to navigate, with over 300 oral sessions divided into Symposia (invited talks built around a strict theme), Organized Oral Sessions (themed talks with organiser approval required for inclusion), Contributed Oral Sessions (all the rest of us), and Ignite Sessions (themed, invited talks in a 20-slides-in-5-minutes format). But there are quite a few perks to getting so many folks together in one place. New Zealand ecology was quite well-represented at the conference (searching for "New Zealand" yields 41 hits in the online program [1]) and I unexpectedly made some useful contacts with researchers from other institutions within NZ while I was there.

I've often heard the meeting described as very "plant-y", which suits me quite well as a plant community ecologist, but many other common themes emerge when looking broadly across the program (supported by Noam Ross's text analysis of the online abstracts [2]). A couple of themes particularly stood out to me, though. First, the integration of basic and applied ecological concepts, highlighted for me by Kathy Cottingham's plenary about understanding toxic cyanobacterial blooms in oligotrophic systems and links between coexistence theory and invasions in the symposium "Biotic Resistance from Mountains to Oceans", and also summarized in a review of the symposium "Advancing Ecological Theory for Conservation Biology" on the EEB & Flow blog [3]. Following from this, I appreciated the interspersing of theory and empirical talks, such as when a talk using functional traits to infer niche differentiation was followed by a modelling talk demonstrating potential tools to determine which theoretical mechanisms can be inferred from various patterns of niche differentiation. The theme of theory vs. empiricism (or rather theory combined with empiricism) was perhaps epitomized in the Ignite Session of that title (summarized by an observer on the EEB & Flow [4]). Some specific topics that received quite a bit of attention included climate change, invasions, the interplay between above- and belowground processes, and a variety of analytical tools and modelling techniques, summarized on the Journal of Ecology's blog [5]. Another significant component of the meeting is ecology education and outreach, with multiple workshops, organised oral and poster sessions, and general sessions disseminating research on and instructing in the use of pedagogical best practices in the ecology classroom.

Finally, multiple attendees have commended the relative inclusiveness of the ESA meeting regarding students, early career researchers, ecologists with families, and other components of diversity (including the Journal of Ecology's blog [5], and compared to other recent meetings on the Small Pond Science blog [6]). One formal effort in this vein is the development of the Early Career Fellow program, whereby ESA members within 8 years of receiving their terminal degree can be nominated to be recognized for outstanding contributions to research, education/outreach, and practical application of ecology to management. To highlight the program, just in its second year, a symposium including talks from all of the 2013 Fellows was held on the first afternoon of the conference (summarized on the EEB & Flow [7]). Thus, in addition to seeing the commitment among ecologists to furthering our understanding and application of that knowledge to practical issues, I am heartened to see more and more evidence that our scientific societies are committed to furthering the growth of the next generation of scientists.

Next year will be the centennial meeting of the Ecological Society of America, held in Baltimore, Maryland, from 9 – 14 August, with the theme of "Ecological Science at the Frontier" (http://esa.org/baltimore/). The submission deadline for general abstracts is 26 February; deadline for latebreaking poster abstracts is 7 May.

COMMUNICATING SCIENCE: GETTING MEDIA SAVVY

Monica Peters, PhD Candidate, University of Waikato, www.monicalogues.com

Recently, the Ministry for Business, Innovation and employment released the Nation of Curious Minds report, which is a National Strategic Plan for Science in Society. Participatory science is the glue binding the three 'Action Areas' together, namely enhancing the role of education, the public engaging with science and technology and the science sector engaging with the public. For the latter Action Area, the ability to communicate science effectively will play an increasingly important role. As a PhD student with a background working with, and advocating for community environmental groups, being able to communicate with a diverse audience is a vital part of the job. So, I jumped at the opportunity to take part in a Science Media Savvy workshop hosted by the Science Media Centre (SMC). In August, a dozen scientists with diverse research interests ranging from; constructed wetlands to giant squid ecology to Antarctic wave modeling, converged on Waikato University. The aim of the two-day workshop to learn the art of making science informative and inspiring for the general public.

The workshop was hosted by the SMC Manager, Peter Griffin and Senior Media Advisor, Dacia Herbulock along with key staff from the Herald, Waikato Times, Radio NZ and TVNZ. Over the course of two days participants honed their 'pitch'. A pitch is basically the answer to that ever present question 'so what is your research about?' The unasked question that also requires answering is: 'and how is it relevant?'

Taisia gets Media Savvy.

Developing the pitch was an interesting process because for some participants it became clear that the wider subject area (in my case, citizen science) was more interesting and easier to grasp than the actual area of research (e.g., community-based environmental monitoring). A pitch or media article also begins with the strongest, most interesting information first as written content in particular is pruned to fit column space from the back end. Participants were all given opportunities to be interviewed and filmed, with much encouragement provided by the group.

Discussions during the workshop inevitably touched on 'what your academic colleagues think of you'. Some believe a communication role diminishes your role as a researcher, and yes, it can. The success, for example of the Naked Scientists podcasts leaves little time for founder Dr. Chris Smith to do actual research. However, he has also commented that "It's easier to teach a scientists to be a journalist than it is to teach a journalist to be a scientist". In terms of accuracy of content he makes a valid point.

To return to the Science in Society plan, a stand-out comment centres on "…increasing recognition of the broader social responsibility of scientists to engage with the wider public in meaningful ways". Part of enhancing engagement with the public is about using the media as conduit for sharing research along with the host of other tools available such as podcasts, blogs and social media. The Science Media Savvy workshops provide practical pathways with which to negotiate the terrain outside traditional institutional and disciplinary boundaries. The workshops have been taking place around NZ over the last two years and the next will take place in Auckland, 20–21 November 2014. MBIE has laid down has laid down a timely challenge for scientists in the Science and Society plan—as for me, I'll do my best to take them up on it.

JS WATSON TRUST RECIPIENTS 2014

Mary McEwen

The JS Watson Trust is administered by Forest and Bird. Details can be found on their website at http://www.forestandbird.org.nz/what-we-do/partnerships/js-watson-trust
Recipients for this year are as follows:

- **Helen Bibby**—Mapua & Districts Community Association Inc: Dominian Flats restoration project. $4,000
- **Karen Bourgeois**—School of Biological Sciences, University of Auckland: Influence of adult foraging strategy on chick growth and breeding success in the grey-faced petrel. $4,000
- **Alison Evans**—Banks Peninsula Conservation Trust: Enhancing Banks Peninsula forest habitats for morepork and other locally rare biodiversity. $4,000
- **Stephen Palmer**—Tawharanui Open Sanctuary Society Inc (TOSSI):Takahe translocation to Tawharanui Open Sanctuary. $4,000
- **Aaron Penman**—Boyle Village Conservation Group:Predator Control Project – phase 2. $4,000
- **Hendrik Schultz**—University of Auckland (School of Biological Sciences): Conservation of the Brown Skua (Catharacta lonnbergi) on the Chatham Islands - a spatial approach. $4,000
- **Joshua Thoresen**—Auckland University of Technology, Institute for Applied Ecology New Zealand:Identifying the effects of seabird island restoration on invertebrate food webs.$ 4,000

NEWS FROM COUNCIL

NZES: Withdrawal from IUCN

The NZES Council has made a decision to not to continue with membership of IUCN. The reason for leaving is that the Council believes that we are in a financial position where continued membership of IUCN is not a wise use of the NZES funds. There was a strong feeling that the subscription to IUCN would be better redirected to support the NZES membership and key NZES activities (for example, New Zealand Journal of Ecology, the annual conference, website development, students attending conferences, and awards). Because of increased costs of many important outputs of NZES, the Council has had to decide what outputs are the highest priorities for ongoing spending of its budget. The council does still consider the IUCN a very important organisation at an international level, particularly the role it has in the Pacific region. We hope that NZES will be able to work in other ways (other than a subscription of membership) to support IUCN. For example, at an international level it currently works closely with INTECOL, by assisting with international conferences and position statements. The Council would like to thank Wren Green for his attendance at IUCN meetings for 16 years, and providing a voice for the Society at these meetings.

New website

The new NZES website is now live. The website contains both the society's information and the New Zealand Journal of Ecology. We are extremely grateful for the hard work and time that Laura Young and Ellen Cieraad have put in over the last year (or more) to ensure the new website was developed.

NZES 2015 Conference Dates

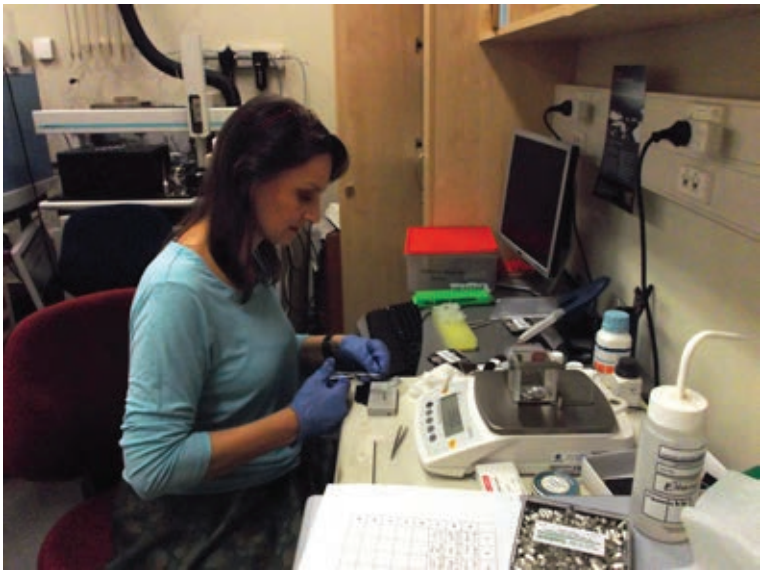
16–19 November 2015—save the dates in your diary now. More information on the 2015 NZES conference will be provided in the December newsletter.

POSTGRAD PROFILES

Della Bennet

Della is a MSc student at the University of Canterbury

The monitoring of seabird species creates a lot of challenges as they spend their life predominantly at sea, thus there is a lack of scientific knowledge with regard to their migration, moult and diet. Understanding seabird diet is particularly important for the conservation and management of a species. For example, the Hutton's shearwater (*Puffinus huttoni*) is an endemic seabird that breeds only within the alpine seaward Kaikoura mountains. The conservation of this species has an urgent factor, as there are only two remaining colonies. To aid the conservation of this species, the Hutton's Shearwater Conservation Trust has translocated 500 chicks to a predator-proof protection area on the Kaikoura Peninsula.



Della Bennet preparing individual feather samples for stable isotope analysis. Each feather is cleaned of surface contaminants (2:1 chloroform:methanol rinse) and dried before cutting into small fragments for analysis. Each sample is placed in a small tin container, weighed and passed through the isotope ratio mass spectrometer.

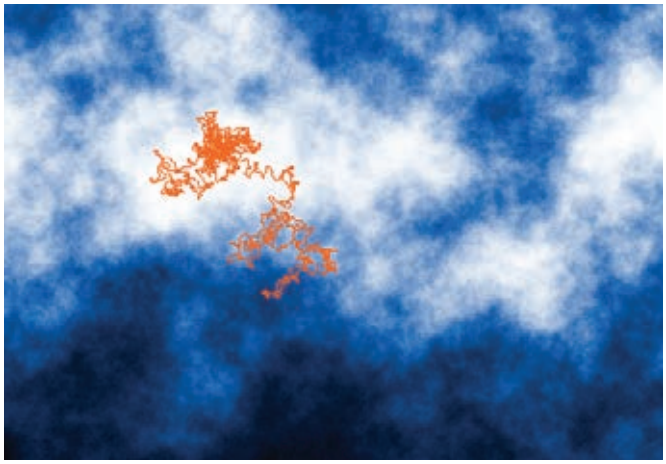
My study will provide information on the marine ecosystem food chain and the complex mixture of prey species in the Kaikoura–Pegasus Bay nearshore system. This knowledge will allow us to track future environmental changes and the impact these variations might have on the marine food web. This will allow us to assess the impact on the Hutton's shearwaters' diet, and also on other pelagic species (e.g., seabirds, seals, and whales). This study will compare stable isotope (the carbon and nitrogen elements found in an organisms tissue and exist in different concentrations depending the metabolism of the organism being studied) ratios taken from fish and zooplankton samples collected within local waters (Kaikoura, Gore Bay and Banks Peninsula) to that of Hutton's shearwater feathers sampled from hatchling downy breast feathers, fledgling breast feathers, and adults. This method will enable a comparison of the relationship between the different life-history stages of the birds and the food resources.

I am Christchurch born, a wife and mother of two fantastic kids (10 year old daughter and 13 year old son), and a mature student at the University of Canterbury.

Craig Simpkins

Craig is a PhD. candidate at the University of Auckland, supervised by George Perry and Todd Dennis. Additionally Craig is advised by Tom Etherington at the Auckland University of Technology. Craig receives funding support from the University of Auckland

My research focusses on understanding landscape connectivity, with a particular emphasis on evaluating the accuracy and robustness of connectivity metrics. Landscape connectivity is a measure of the degree to which landscape structures and elements facilitate or impede a species' movements between resource patches. Estimating connectivity at the landscape level is important for many conservation-planning purposes, including predicting the spread of pest species, prioritising land protection and establishing habitat corridors. Various techniques exist to predict connectivity, mostly utilising resistance surface representations of landscapes. However, due to the challenges of empirically quantifying landscape connectivity, the accuracy with which these techniques



A virtual ecosystem developed by Craig to understand and test how animals choose to move across a resistance surface.

capture connectivity is unknown. In my thesis I am taking a 'virtual ecology' approach to understand the accuracy of each technique under different conditions. Using this approach I have developed a computer simulation of a simple ecosystem, which generates realistic landscape connectivity patterns. These simulated patterns may be used for comparison against the connectivity estimates made by the standard techniques, thus assessing the accuracy of these estimates. Findings from this research should enable conservation managers to have an unbiased basis from which to assess the differing connectivity estimation techniques. The ultimate goal of my research is to develop a set of best-practice guidelines informing researchers and managers on the usefulness and robustness of each technique.

Cory Toth

Cory is a PhD Candidate (entering third year), in the School of Biological Sciences at the University of Auckland. Cory is supervised by Associate Prof Stuart Parsons (Supervisor), Dr. Todd Dennis, Dr. Gregory Holwell (Co-supervisors) from the University of Auckland. Cory is funded by the Australasian Society for the Study of Animal Behaviour (grant), Australasian Bat Society (grant), Bat Conservation International (grant), and the University of Auckland (scholarship)

Cory Toth weighs a bat.

Lek breeding is a mating system where males in a population aggregate within an area (i.e. the "lek", from the Swedish word "to play") to produce sexual displays for visiting females. Females, in turn, select mates based on the quality of their displays and receive no resources in exchange for mating. Lek breeding, while rare overall, is disproportionally rare in bats; only one (a fruit bat of equatorial Africa) in over 1100 species of bats has ever been confirmed to breed on leks, with no clear reason for the mating system's rarity in the Order. New Zealand's Lesser Short-tailed Bat (*Mystacina tuberculata*), however, has long been rumoured to use a lek mating system. During the summer months males occupy small cracks in trees and sing to attract passing females. These 'singing roosts' have been reported to be clustered in space, suggesting lek breeding, but the mating behaviour of *M. tuberculata* has never been examined in depth.

My research has used spatial analyses, radio-telemetry, video analyses, and passive-integrated transponder tags to study the mating system of a population of *M. tuberculata* in the central North Island. Through this research I have confirmed *M. tuberculata* as a lek breeder and that – contrary to past assumptions – all singing roosts are not solitary; some are shared between multiple males who take shifts throughout the night to sing. This is a behaviour I believe to be unique to lek breeders and bats alike. Currently I am using genetics to determine the correlates of male reproductive success (e.g. morphology, song characteristics) and to determine if 'timeshare' males are related. Through this work I hope to not only propose management plans to help conserve this endangered species, but also suggest reasons for the mating system's rarity in bats overall.

Cory's three minute thesis talk can be viewed at: https://www.youtube.com/watch?v=HGIxbmoXmNo

THE NOTICEBOARD

THE STUDENT CONFERENCE ON CONSERVATION SCIENCE (SCCS) IS HAPPENING!

19–29 January 2015

The University of Queensland, Brisbane, Australia

Open to post-graduate students from anywhere in the world with a focus on Asia-Oceania

A unique and unforgettable experience to create lasting networks and launch your career in conservation science.

- Early bird registration 1–30 September 2014
- Full price registration 1 October 2014

Register online: www.sccs-aus.org

STATISTICAL ECOLOGY AND ENVIRONMENTAL MONITORING (SEEM) 2015

Queenstown, New Zealand, from 22–26 June, 2015

www.maths.otago.ac.nz/SEEM2015

The conference will bring together experts in statistics, ecology and environmental sciences.

It is a privilege to have Bryan Manly as our honorary speaker, along with a world-class list of invited speakers:

- Murray Efford (NZ)
- Kerrie Mengersen (AUS)
- Shirley Pledger (NZ)
- Ken Pollock (USA)
- Andy Royle (USA)
- David Warton (AUS)

Further details about the conference, including information about Queenstown, please visit www.maths.otago.ac.nz/SEEM2015. We will continue to add details to the website with registration and abstract submission opening soon. We hope that you will come and join us.

The SEEM2015 Local Organizing Committee

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 donation to the Kauri Fund, whether $10, $20 or $50, now or when you renew your subscription. You can contribute in two ways:

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

Internet banking: credit to New Zealand Ecological Society, account 06 0729 0465881 00, identify the payment as "Kauri Fund".

UPCOMING MEETINGS

Ecological Society of Australia 2014

28 September – 3 October 2014

Alice Springs Convention Centre

http://www.esa2014.org.au/

10th Australian Plant Conservation Conference 2014

11–14 November 2014

Hobart, Tasmania

"Sustaining Plant Diversity—Adapting to a Changing World"

The Australian Network for Plant Conservation (ANPC) & the Royal Tasmanian Botanic Gardens (RTBG)

http://www.anbg.gov.au/anpc/index.html

NZ Ecological Society Conference

16–20 November 2014

Massey University, Palmerston North

Is NZ the world's invasion hotspot?

Abstract Submissions Close: 1 October 2014

Early-bird Registrations Close: 1 October 2014

www.nzes2014.org

2014 Water Symposium

24–28 November 2014

Marlborough Convention Centre, Blenheim

Joint conference of the New Zealand Hydrological Society, New Zealand Freshwater Sciences Society and the IPENZ Rivers Group.

Integration: 'The Final Frontier' ~ Whakakotahi te amine rohenga

Early-bird Registrations Close: 24 October 2014

http://www.2014watersymposium.co.nz/

2014 AWMS Annual Conference

2–4 December 2014

Pullman King George Square, Brisbane

Australian Wildlife Management Society

Registration is open now

http://awms.memberclicks.net/conference

Australasian Bayesian
Network Modelling Society

ABNMS 2014

November 24 to 27
Rotorua, New Zealand

Part A

Pre-conference Bayesian Network Tutorials

November 24 and 25 (Waiariki Polytech)

A two day basic introduction to Bayesian Networks (BNs). Includes an overview of BNs and software platforms, expert elicitation for parametising BNs, GIS integration, sensitivity analysis and an introduction to more complex BNs, e.g., object orientated, plus more…..

- **Tutors** from ABNMS and Bayesian Intelligence.
- **Cost:** $175 to $225 (see website for student, member and non-member prices).
- Limited to 40 participants.

Part B

ABNMS Conference 2014

November 26 and 27 (Holiday Inn)

Keynote Speaker:
Dr Bruce Marcot, USDA-Forest Service.

As a wildlife biologist Dr Marcot pioneered the application of Bayesian Networks (BNs) for land management and modelling the future habitat and population size of threatened species. His lecture **"Of Confidence, Control, and Cause: Using Bayesian Networks for Management Decisions"** will trace the evolution of BNs for natural resource management and their use in structured decision-making. He raises practical questions of denoting confidence in expert judgment used to develop probability structures, of identifying management control and influence of decisions, and of determining causality.

Dr Bruce Marcot.

Abstracts are invited from a range of fields including environmental management, engineering, law, infrastructure and medicine.

Abstract deadline	September 30, 2014
Registration deadline	October 24, 2014
Cost	$150 to $250 (see website for student, member and non-member prices)

For more information and to register visit www.ABNMS.org

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BAYESIAN INTELLIGENCE

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(Effective from November 2014)

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SUBMISSIONS TO THE NEW ZEALAND ECOLOGICAL SOCIETY NEWSLETTER

Contributions from NZES members are sought in the form of:

- **Feature articles** on topics of interest to NZES members
- **Event announcements**, for listing on the *Noticeboard*
- **Conference reports**, on conferences of ecological relevance
- **Images**, for *Illustrate Ecology* on the newsletter cover
- **Ecology news from overseas**
- **Book reviews**
- **Post graduate profiles**

Feature articles can be up to 1,000 words accompanied by up to four images.

Conference reports should be around 600–800 words with up to three images.

***Illustrate Ecology* images** should be accompanied by a short title and a caption explaining the ecological concept illustrated.

Book reviews of up to 1,000 words are now published in the newsletter. If you would like to review a book of interest to NZES members, please contact the newsletter editor.

Postgraduate profiles of current or recent PhD, MSc, or Honours students should be no more than 200–300 words and include a 2-sentence blurb about yourself, a summary of your thesis written for a general scientific audience, and a photo and caption related to your research.

Please do not use complex formatting—capital letters, italics, bold, and hard returns only, no spacing between paragraphs. All images should be emailed as high resolution (300 dpi) jpg files. All contributions and enquiries can be emailed to Jane Gosden, the Newsletter Editor: newsletter@nzes.org.nz

Content for the December 2014 issue of the NZES Newsletter is due by Friday 5 December 2014.

NEW ZEALAND ECOLOGICAL SOCIETY

MEMBERSHIP APPLICATION

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