

NEW ZEALAND ECOLOGICAL SOCIETY

Newsletter

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From the Editor

Kia ora koutou,

I hope this newsletter finds you all well and safe, as 2021 is proving to be another wild ride. This newsletter contains some of the classics such as Ecotones and Illustrate Ecology, and it also has notices about carpooling to the NZ Ecological Society's conference (which hopefully we'll be able to

have in person!) and notices about other upcoming events and happenings. Finally, don't forget to submit any NZES award nominations by 1 October.

Enjoy your third newsletter of 2021!

Ngā mihi,
Rowan

News from NZES council

Kia ora koutou

I hope all are well. It is great that all of those in Tāmaki Makaurau have shifted down a covid alert level these last few days. I hope your takeaways have been tasty and your café-bought coffee delicious. More importantly, it is heartening that case numbers are coming down and we are slowly but surely bringing this latest outbreak under control. This bodes well for many things, not least the chances of us hosting a face-to-face conference this year.

Council was able to host our first face-to-face meeting of the year just before lockdown. At that meeting we were able to welcome our Māori representative, Symon Palmer, to his first face-to-face meeting. We also resolved to invite a second Māori representative to join Council, adopting a practice recommended by the Royal Society Te Apārangi. Symon is leading this process.

Another position Council is hoping to fill is that of Submissions Co-ordinator. In the past we have often called for expressions of interest in an ex-officio position of Submissions Officer. The idea behind the Submissions Co-ordinator is to reflect that we see this position as being one of co-ordinating people to lead or write submissions rather than writing submissions themselves (though of course they may do this if they wish!). If you are interested in helping to guide the NZES' response to government policies and other issues please get in touch.

In fact, there are likely to be a couple of vacancies among Council positions at the end of this year, so if you are interested in serving your society and working with a fun group of people, please get in touch before the AGM.

Take care

Tim Curran

New Council member – Symon Palmer

Symon Palmer (Ngāi Te Rangi) is the New Zealand Ecological Society's Māori representative on Council. Symon works at Te Herenga Waka Victoria University of Wellington, based in Te Kawa a Māui School of Māori Studies. He is a Researcher working with Ocean Mercier and Phil Lester on a National Science Challenge BioHeritage project. The research team he works with is supporting biodiversity and conservation efforts by investigating novel tools for pest wasp control. His focus area is the socio-cultural view on these issues, with a particular interest in Māori voices. His master's thesis examined Māori business perspectives of the potential use of biotechnologies in pest wasp management. More recently, he has been working with Ocean Mercier to understand historical conceptions of pests by Māori through whakataukī, and planning a research project on Māori beekeepers and Varroa mite.

His interest in ecology is piqued by the collaborative and learning potential it has when working with the Social Sciences, humanities, mātauranga, and society.

When he's not researching, you might find him playing bass in a couple of bands around town and he always enjoys a music related discussion!

NZES Conference – Carpooling

Why do you hate that environment so much?

The emissions of driving a medium sized car from Auckland to Paihia and back are approximately 100kg of carbon dioxide. Obviously if we share vehicles we can decrease these costs per person, but who here is brave enough to do it with zero emissions? I am planning to cycle from Auckland to the conference (and back) and would like some hardy souls to join me on this mission. It is approximately 250 km one way, with an estimated cycle time of 15 hours. That would be one phenomenally foolish day, but two only moderately stupid days if we stayed overnight around Ruakaka. Depending on who is interested, we could stretch that to 3 moderate days stopping in Wellsford and Whangarei. Plans are in their infancy, but please contact me if you think this is a mission you could support. I think it will be fun, and the kind of people willing to do this will make it a hoot. Long distance cycling is an immersive exercise

that will change the way you think about travel, and this trip will be a great fitness goal to aim for. Get training and see you on the road!

- Andrew Veale (andrew.j.veale@gmail.com)

NZES Awards – Call for nominations and enquiries

The New Zealand Ecological Society offers several awards and prizes. For nominations and queries about NZES awards and prizes, please contact the NZES Awards Convenor, [James Russell](#).

[Te Tohu Taiao](#) - Award for Ecological Excellence – nominations due by 1 October

[Ecology in Action](#) – nominations due by 1 October

[Honorary Life Membership](#)

[Outstanding publication on New Zealand Ecology](#) – nominations due by 1 October

[Best Publication by a New Researcher](#)

[Barlow Scholarship](#) – applications due by 1 October

Nominations for the 2021 award round are currently open - please see individual awards pages for application details.

The Council encourages nominations of people from diverse backgrounds and under-represented minorities in New Zealand ecology.

Illustrate Ecology

Woolly Carders bully bees

John Flux



The European wool carder bee, *Anthidium manicatum*, has become the most widely distributed wild bee. From its Old World origins, it crossed to New York in 1963, reached Nova Scotia in 2005, spread to California by 2007, and then over most of South America. In Africa it is restricted so far to Morocco. Australia recorded two clusters in 2019, 200 km east of Melbourne. It got to New Zealand in 2006 and is now found from Northland to Dunedin. A solitary bee, the male defends a clump of flowers for females to feed and collect pollen for their larvae.

1 Woolly nest on sill, exposed when I opened the window. 2 Collecting wool ball from Castlepoint daisy, *Senecio compacta*. 3 Sheltering from rain and overnighting in hole in plank. 4 Flying to chase honey bee. 5 Landing on bee's back. 6 Knocking bee to ground. 7 Attacking bumble bee.

An excellent review is: Soper, J. & Beggs, J.R. 2013. Assessing the impact of an introduced bee, *Anthidium manicatum*, on pollinator communities in New Zealand. *N Z J Botany* 51:213-228.

Stoat and Tūī

Andrew Veale



New Zealand's most beautiful invasive species on top of New Zealand's most beautiful singer.

Postgraduate Profile

Sze-Wing Yiu

Kia ora! I am Sze-Wing Yiu, an MSc (biosecurity and conservation) research student at the University of Auckland. I had completed my PhD at the University of Hong Kong (HKU) and two and a half years of postdoc at University of the Witwatersrand in South Africa prior to relocating to Aotearoa in the beginning of 2020. Due to the difficulties in moving life forward in the middle of COVID, I have decided to undertake the MSc study, under the supervision of Prof James Russell, to gain Kiwi experience and seek postdoc and job opportunities.

My PhD and postdoctoral research were focused on the reintroduction ecology of large predators and their interactions with prey, both of which are critical for post-release management. I studied the movement

patterns of lions and cheetahs and quantified predation risks using spatial modelling techniques. I then looked into the effects of the predation risks on the feeding, vigilance and fleeing behaviour of zebra and wildebeest. Following my passion in predator-prey dynamics, I am now studying the trophic interactions among cats, stoats, kiore and mice, and their detectability on D'Urville Island, Marlborough Sound. As a spinoff from the project, I also investigate preferences of kiore for food-based and social lures on Slipper Island, Coromandel, in collaboration with Dr Mike Jackson from the University of Canterbury.

Apart from doing research, I am also a keen wildlife photographer. Please feel free to take a look at my work:

<https://swyionaturephotography.mypixieset.com/>



NZ Bird Atlas – Upcoming Developments and Merlin Sound ID

Dan Burgin



The [New Zealand Bird Atlas](#) has over two years to go still with plenty of areas left that need vital bird data. **Anyone who is familiar with New Zealand's bird species is welcome to take part.** All you need to do is [register as an eBird user](#), and begin collecting and submitting [complete bird checklists](#) to the [New Zealand Bird Atlas eBird portal](#) until the project ends on 1st June 2024 – it's that easy!

WHAT IS THE AIM OF THE ATLAS?

The general aim of the project is to map the distribution of all New Zealand's bird species between 1st June 2019-2024. The aim for each and every 'Atlaser' is to:

Detect all possible species within each grid square over each of the four seasons.

As this is a citizen science project there is an element of structured methodology with a few '[rules of thumb](#)' to follow. We have run through all of these in four webinars we ran through lockdown which are now available to [watch](#) on YouTube.

There are five basic steps to start Atlasing that are covered in more depth [online](#):

Create a free eBird account and download the eBird app if you haven't already ([App Store](#) or [Google Play Store](#)). See **App Setup** below for important settings.

Learn the [eBird essentials](#) and Atlas [essentials](#) for every Atlas participant to raise the scientific value of their observations.

Go atlasing and submit the birds you see and/or hear on each outing in [complete checklists](#) via the eBird app or online to the [NZ Bird Atlas Portal](#). The mobile app is the easiest way to report your observations and works in remote areas. See more information [here](#).

Read and use the [supporting materials](#), including information on [submitting data](#), and [ID help](#) such as the [Merlin app](#).

Explore the [Atlas Effort Map](#) to see the current status of all grid squares in each season across Aotearoa to plan your future Atlasing adventures.

And the **6th** step is to have fun! This is a huge challenge for NZ birders, ecologists, and ornithologists to get behind, and one that excites us. We hope you join the Atlas community to help gather vital data on the bird species of Aotearoa.

eBIRD APP SETUP

This is very important to ensure all Atlas data goes into the Atlas portal. Ensure that the app is set up with the following settings by clicking on the **"...More"** icon in the bottom right on Apple devices, and the three-line symbol (☰) at the top left for Android devices.

Species name display – **Common Name**

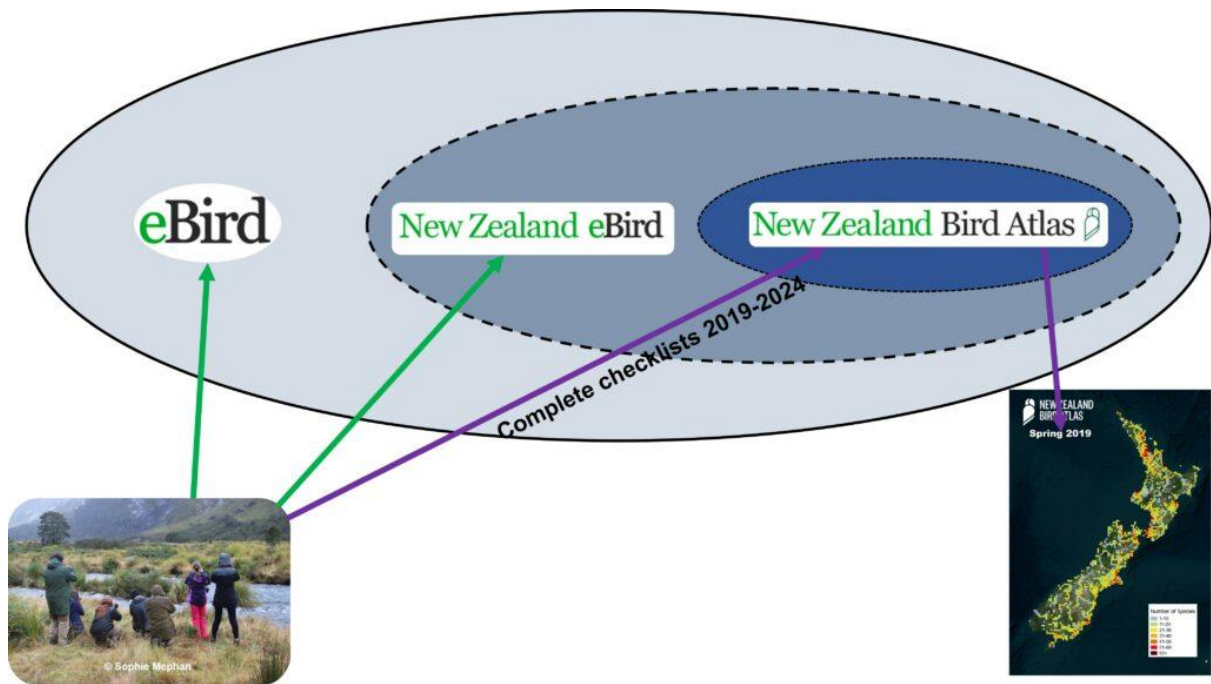
Common name language – **English (New Zealand)**. This will avoid confusing US names for common species

Show distance in **kilometres**

Download the **NZ Bird Pack**

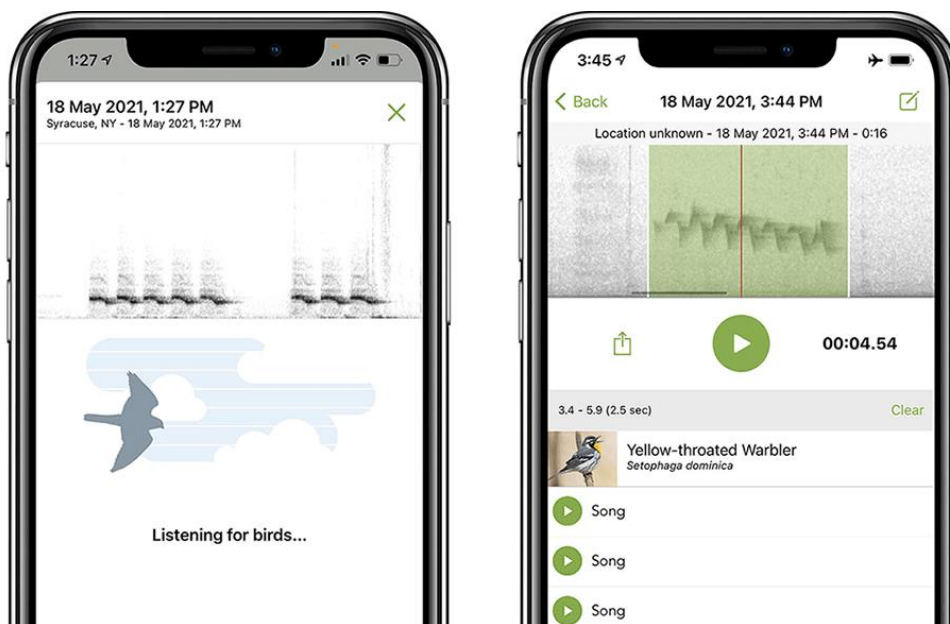
Select **New Zealand Bird Atlas** for your Portal (see below)

Lists submitted to the global or NZ portals won't show up in the [Atlas Effort Map](#). So, it's important you submit your observations to the **NZ Bird Atlas eBird portal** online and/or via your smartphone by setting the portal to [NZ Bird Atlas in the settings of the eBird app](#). The diagram below shows how the portals fit in with each other, like Russian dolls.



MERLIN SOUND ID

Identifying birds from their calls and songs is an important part of birding and bird research. As many of you know, you'll often hear more species than you'll see, particularly when in the bush throughout Aotearoa. Wouldn't it be handy to have a tool that helped you ID all of those calls and songs, to ensure you're detecting as many of them as possible? Automatic song ID has been a pipe-dream for decades, not least because analysing sound has always been extremely difficult for researchers. We have some positive news though, researchers in the US have made a breakthrough and we're working with them to bring it to Aotearoa.



WHAT IS MERLIN SOUND ID?

Sound ID is a new tool in the [Merlin Bird ID app](#) that helps users identify birds by their songs and calls. As you are recording, Merlin will show suggestions in real time, which you can then compare with the built-in field guide of photos, recordings, and ID tips to learn more about each bird you are hearing. Find out more [here](#).

HOW CAN YOU HELP?

You can upload audio recordings of bird calls and songs to eBird. There is a list of high priority species that need more recordings, to get the best fit from the machine learning. The minimum is 100 recordings or more for a species, so the below need more recordings uploaded to the Macaulay Library via eBird (**brackets denote the last count of the number of audio recordings for this species in NZ*):

- [Variable Oystercatcher](#) (16)
- [Spur-winged Plover](#) (17)
- [Silver Gull \(red-billed\)](#) (28)
 - [Black-billed Gull](#) (6)
 - [Black Swan](#) (10)
 - [Pied Stilt](#) (13)
- [Paradise Shelduck](#) (37)
 - [Pukeko](#) (30)
 - [Morepork](#) (67)
- [South Island Robin](#) (22)
- [North Island Robin](#) (33)
- [New Zealand Kaka](#) (40)
 - [Tomtit](#) (56)
- [New Zealand Fantail](#) (89)
 - [Grey Warbler](#) (68)
 - [Whitehead](#) (64)
 - [Brown Creeper](#) (26)
 - [Rifleman](#) (23)
- [Australasian Pipit](#) (11)
- [New Zealand Fernbird](#) (45)
 - [Welcome Swallow](#) (10)
 - [Eastern Rosella](#) (26)

All recordings of NZ species are still immensely valuable, we just need the above to have far more recordings to get them into the first release of Merlin Sound ID. We'll send round updates to target further species in the future.

CONTACT US

If you have any questions at all about the Atlas, eBird or Merlin Sound ID, please don't hesitate to get in touch with the NZ Bird Atlas team at nzbirdatlas@wimil.co.nz

We regularly run workshops, give talks, and send out advocacy material to many organisations and groups across New Zealand, so if you would like us to do this for your work or local community group, please let us know.

We hope you join the growing Atlas community and help us collect a valuable dataset that will help inform bird research and conservation for decades to come.

INTECOL Wetlands Conference and Geneva Conference – Notice

We would like to let you know about two upcoming INTECOL (International Association For Ecology) Conferences:

The INTECOL International Wetlands Conference is the largest, most influential international conference in the field of wetland science and applications. The 11th INTECOL International Wetlands Conference will be held in Christchurch, New Zealand, during 11-15 October 2021. The theme of the conference is "Traditional knowledge and innovative science in wetland research and management" <https://www.intecol2021.com> You can register to attend virtually and this will give you access to the online content.

The 13th INTECOL Congress will be held from August 28 - September 2 2022 at the Centre International de Congrès Genève (CICG) in Geneva, Switzerland. The theme of the Congress will be "Frontiers in Ecology: Science & Society." <http://intecol2021.org>.

Ecology Across Borders Conference – Registration now open

To take into account the needs of ecologists who do not want to attend a conference due to concerns about Covid or do not wish to travel to Liverpool, BES is also providing an online delegate option. This will allow

ecologists from anywhere in the world to take part. You find out more or book up to 6 tickets with a bank card in one transaction.

<https://www.britishecologicalsociety.org/events/ecology-across-borders-2021/virtual-registration/>

If you wish to attend in-person and travel to Liverpool you can buy tickets at

<https://www.britishecologicalsociety.org/events/ecology-across-borders-2021/in-person-registration/>

The deadline for the heavily discounted Earlybird registration is 17:00 Monday 25 October.

BES members get a substantial discount on the price of registration.

Ecotones – New ecological research

Bruce Burns, University of Auckland

A selection of recently published research on or relevant to New Zealand ecology (except that published in the New Zealand Journal of Ecology). The list of other publications on New Zealand ecology can be found towards the end of the newsletter.

1. Plant biogeography of New Zealand's northern offshore islands revealed

Although dominated by three large islands (North, South, Stewart), New Zealand is an archipelago of hundreds of islands. These islands vary greatly in terms of size, isolation, biological invasions, and human history, so provide a rich study set to explore biogeographic principles. As well, naturalists, particularly botanists, have been visiting and reporting on the fauna and flora of these islands for several decades, developing an amazing biodiversity database in what has amounted to a huge, largely voluntary research project. Mologni et al. (2021) have recently used this wealth of data to explore the biogeography of native and exotic plant species across 264 islands off the north-eastern coast of North Island. The database used included records of 1677 plant species on these islands shared almost equally between natives and exotics. Consistent with biogeographic principles, both native and exotic plant species richnesses increased with island area and declined with island isolation and exposure to ocean-borne disturbances (e.g., salt spray). Exotic species richness, however, was also greater on more northern islands and those closer to urban areas, and disproportionately more strongly affected

by island size and isolation compared to native species richness. These relationships suggest that the same fundamental factors influence both native and exotic species but also suggest that invasion by exotic species is still ongoing within the New Zealand archipelago. The dataset now compiled provides a rich source of distributional information that will be of immense value to invasive species managers and future ecologists.

Mologni F, Bellingham PJ, Tjørve E, Cameron EK, Wright AE, Burns KC 2021. Similar yet distinct distributional patterns characterize native and exotic plant species richness across northern New Zealand islands. *Journal of Biogeography* 48 (7): 1731-1745.



Motukokako Island (left) and Tiheru Island (right) near Cape Brett, Northland.

Image Source: Bruce Burns

2. Welcome home! New Zealand sea lions recolonizing the mainland

New Zealand sea lions (*Phocarctos hookeri*) once bred around the entire coastline of New Zealand including the mainland, offshore and subantarctic islands. During the 19th century, however, the species was hunted almost to extinction with only subantarctic breeding populations remaining. Even though the population of sea lions on the subantarctic islands is still in decline due to female deaths in the trawl fishery there,

two breeding colonies have now re-established on the New Zealand mainland: one first reported in 1996 in Otago, and the other established in the Port Pegasus area of Stewart Island around 2010. Chilvers & Dobbins (2021) have been following these re-establishment events to better understand the behaviours required of individuals that lead to colonisation away from the original population sites. The Port Pegasus population is now the more successful of the two new mainland breeding sites, with 47 pups weaned in 2020 and multiple resightings of individuals tagged as pups returning to this site. Observations at the Stewart Island site of tagged individuals from the subantarctic islands have been rare over the 10-year study, but show that low connectivity among distant populations does exist. Also, spatial behaviour of the small population at Port Pegasus is different from the larger subantarctic populations, with breeding locations changing by several km annually compared to the more fixed locations of the larger populations. Although still small, the new and increasing Stewart Island population is significant as a step towards potential expansion of this species back to at least part of its historic range.

Chilvers BL, Dobbins ML 2021. Behavioural plasticity and population connectivity: Contributors to the establishment of new pinniped breeding colonies. *Aquatic Conservation: Marine and Freshwater Ecosystems* 31 (8): 2217-2228.



New Zealand sea lion (*Phocarctos hookeri*) Image source: Harald Selke used under Creative Commons Licence.

3. Pines in New Zealand: maintaining the Jekyll while suppressing the Hyde

Pines in New Zealand have Jekyll and Hyde impacts. On the one hand, pines dominate commercially planted stands for timber, and more recently, carbon sequestration. On the other hand, pines are invasive over large land areas, e.g., over two million hectares of wilding pines in New Zealand, causing substantial ecological impacts and economic costs of control. Research to underpin management of pines by reducing operational costs and increasing commercial benefits is currently highly active in New Zealand. Wyse & Hulme (2021) have recently carried out an analysis of how best to forecast risks of spread of invasive pines. They concluded that spread was best predicted simply from models of dispersal potential (integrating plant height and seed terminal velocity) and that past assumptions of spread rate of some pines have often been underestimated. Sprague et al. (2021) report on a study of the previously high estimated population growth rates of invasive pine populations in the South Island. They conclude that these rates have been overestimated in this case (though still of concern) from models inappropriately extrapolating plot measurements to landscape scales. Rolando et al. (2021) have quantified guidelines to increase the effectiveness (less herbicide used for greater kill rates) of aerial herbicide application for killing invasive *Pinus contorta*. Lastly, Edwards et al. (2021) have developed a new and robust method for estimating operational costs of undertaking invasive pine control in New Zealand, based on an online workshop of field experts. All this research, with pine ecology at its core, is tipping the balance between pine Jekyll and pine Hyde, though the war is still far from over.

Edwards P, Sprague R, Stahlmann-Brown P 2021. Removing invasive conifers-considerations, complexity and costs. Environmental Research Communications 3 (7): art. no. 071004.

Rolando CA, Richardson B, Paul TSH, Somchit C 2021. Refining tree size and dose-response functions for control of invasive *Pinus contorta*. Invasive Plant Science and Management 14 (2): 115-125.

Sprague R, Hulme PE, Moltchanova E, Godsoe W 2021. Density dependence and spatial heterogeneity limit the population growth rate of invasive pines at the landscape scale. Ecography, in press.

Wyse SV, Hulme PE 2021. Dispersal potential rather than risk assessment scores predict the spread rate of non-native pines across New Zealand. Journal of Applied Ecology in press.



Wilding radiata pine and Douglas fir in the Waihopai Valley, South Marlborough. Image source: Rowan Sprague

4. Why do people trap rats in their backyards?

While in lockdown, I have built a backyard trapping tunnel (<https://www.doc.govt.nz/get-involved/conservation-activities/build-a-backyard-trapping-tunnel/>) and installed a rat trap inside it (no luck yet!). By doing this, I have joined the incredible upsurge in community participation in projects working to improve conservation outcomes in New Zealand urban areas (e.g., Eastern Bays Songbird Project <https://www.songbird.org.nz/>, Predator Free Miramar <https://www.pfw.org.nz/get-involved/groups/predator-free-miramar/>). Why are people partaking or not in rat trapping and other conservation positive activities in their backyards? Can this information be used to further increase such action? Woolley et al. (2021) have just published results of a survey to answer these questions. They found that willingness to engage in backyard trapping was related to respondent's connection to nature and their knowledge of the tangible outcomes. Barriers were safety concerns for pets or children, concerns about animal welfare, a dislike for having to deal with carcasses, and perceptions that trapping was expensive or required a particular type of backyard or space. Promoting the motivations and resolving these barriers could lead to even greater

participation rates. For me, I'm hoping to make my backyard pest-free so tūi will continue to visit the flowering karo outside my home office window.

Woolley CK, Hartley S, Nelson NJ, Shanahan DF 2021. Public willingness to engage in backyard conservation in New Zealand: Exploring motivations and barriers for participation. *People and Nature* 3 (4): 929-940.

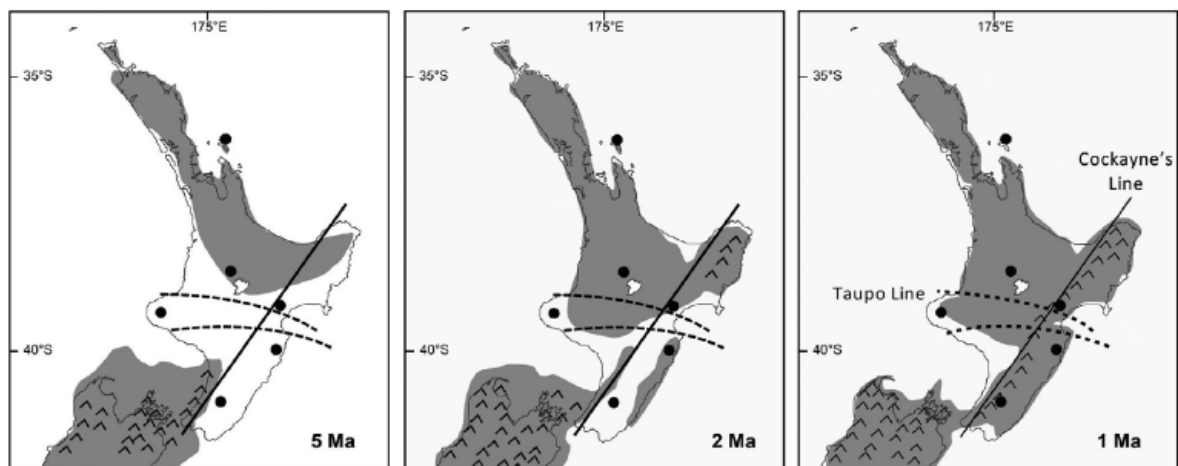


Rat trapping tunnel in my backyard. Image source: Bruce Burns

5. Genetic structure of rifleman uncovers ancient boundaries

Species that have widespread distributions can sometimes contain genetically distinct and isolated subpopulations. To understand the historical evolution of a species and for designing management to effectively conserve the genetic diversity present in such species, discovering the presence of such subpopulations is critical. Recently, Withers et al. (2021) have studied the genetic structure of North Island rifleman (*Acanthisitta chloris granti*) across its range. This ancient endemic subspecies with low dispersal ability was once found across the North Island but now occurs in a few dispersed subpopulations. Withers et al. (2021) sampled blood from 90 N. I. rifleman representing six such subpopulations and compared the genetics of these birds to each other. They found several genetically distinct lineages across the North Island. These included a distinct island population on Hauturu, a subpopulation along the southeastern coast, and a central-western subpopulation. The geographic structure of these subpopulations reinforces the existence of two hypothesised biogeographic lines: the Taupo line and the Cockayne line, which relate to ancient sea level changes and tectonic events respectively. This study adds to the increasing evidence that these biogeographic lines are real and have fundamentally influenced genetic structure and speciation on the North Island.

Withers SJ, Parsons S, Hauber ME, Kendrick A, Lavery SD 2021. Genetic divergence between isolated populations of the North Island New Zealand rifleman (*Acanthisitta chloris granti*) implicates ancient biogeographic impacts rather than recent habitat fragmentation. *Ecology and Evolution* 11 (11): 5998-6014.



Significant geological events impacting species distributions on North Island over three time periods creating the Taupo Line and Cockayne's Line. Image source: Withers et al (2021).

Publications in the current issue of NZ Journal of Ecology (volume 46, issue 1)

Research Article

[Individual specialists within a generalist niche: variable diet of stoats and implications for conservation](#) : 3443

Jamie R. McAulay, Joanne M. Monks, Deborah J. Wilson, Philip J. Seddon

[Native and exotic grasses share generalist foliar fungi in a Canterbury high country grassland](#) : 3451

Michelle L. Visscher, Warwick J. Allen, Ian A. Dickie

[The effects of beech masts and 1080 pest control on South Island robins \(*Petroica australis*\)](#) : 3452

Mara A. N. Bell, Doug P. Armstrong, Joris S. J. Tinnemans, Tristan E. Rawlence, Christopher W. Bell, Anja McDonald, Kirsty J. Moran, Graeme P. Elliott

[Invertebrate communities in adjacent Douglas fir and native beech forests in New Zealand](#) : 3446

Alison M. Evans, Guadalupe Peralta, Floris M. van Beest, Krista Klijzing, Duane A. Peltzer

[Dead frond "skirts" as tree fern defence: what is the evidence?](#) : 3439

James M. R. Brock, Bruce R. Burns

[New Zealand Environmental Data Stack \(NZEnvDS\): A standardised collection of spatial layers for environmental modelling and site characterisation](#) : 3440

James K. McCarthy, John R. Leathwick, Pierre Roudier, James R. F. Barringer, Thomas R. Etherington, Fraser J. Morgan, Nathan P. Odgers, Robbie H. Price, Susan K. Wiser, Sarah J. Richardson

[European hedgehogs rear young and enter hibernation in New Zealand's alpine zones](#) : 3448

Nicholas J. Foster, Richard F. Maloney, Mariano R. Recio, Philip J. Seddon, Yolanda van Heezik

[Factors limiting kererū \(*Hemiphaga novaeseelandiae*\) populations across New Zealand](#) : 3441

Joanna K. Carpenter, Susan Walker, Adrian Monks, John Innes, Rachelle N. Binny, Ann-Kathrin V. Schlesselmann

[Species turnover in forest bird communities on Fiordland islands following predator eradications](#) : 3449

Colin M. Miskelly, Terry C. Greene, Pete G. McMurtrie, Kim Morrison, Graeme A. Taylor, Alan J.D. Tennyson, Bruce W. Thomas

[Habitat-specific densities of urban brushtail possums](#) : 3450

Charlotte R. Patterson, Philip J. Seddon, Deborah J. Wilson, Yolanda van Heezik

Review Article

[Revised extent of wetlands in New Zealand](#) : 3444

John R. Dymond, Marmar Sabetizade, Peter F. Newsome, Garth R. Harmsworth, Anne-Gaelle Ausseil

Forum Article

[What effects must be avoided, remediated or mitigated to maintain indigenous biodiversity?](#) : 3445

Susan Walker, Peter J. Bellingham, Geoff Kaine, Sarah Richardson, Suzie Greenhalgh, Robyn Simcock, Marie A. Brown, Theo Stephens, William G. Lee

[Life history traits explain vulnerability of endemic forest birds and predict recovery after predator suppression](#) : 3447

Susan Walker, Adrian Monks, John G. Innes

Short Communication

[Archaic, terrestrial Hamilton's frogs \(*Leiopelma hamiltoni*\) display arboreal behaviours](#) : 3442

Joseph T. Altobelli, Sarah K. Lamar, Phillip J. Bishop

Other recent publications on New Zealand ecology

Bruce Burns, University of Auckland

Apologies if I have missed your publication in my search. If I have, please send a citation to b.burns@auckland.ac.nz so I can include it in the next Ecotones.

Allen WJ, Waller LP, Barratt BIP, Dickie IA, Tylianakis JM 2021. Exotic plants accumulate and share herbivores yet dominate communities via rapid growth. *Nature Communications* 12 (1): art. no. 2696.

Armstrong DP, Parlato EH, Egli B, Dimond WJ, Kwikkel R, Berggren Å, McCreedy M, Parker KA, Ewen JG 2021. Using long-term data for a reintroduced population to empirically estimate future consequences of inbreeding. *Conservation Biology* 35 (3): 859-869.

Arranz V, Thakur V, Lavery SD 2021. Demographic history, not larval dispersal potential, explains differences in population structure of two New Zealand intertidal species. *Marine Biology* 168 (7): art. no. 105.

Bataille CY, Malinen SK, Yletyinen J, Scott N, Lyver POB 2021. Relational values provide common ground and expose multi-level constraints

- to cross-cultural wetland management. *People and Nature* 3 (4): 941-960.
- Bertoia A, Monks J, Knox C, Cree A 2021. A nocturnally foraging gecko of the high-latitude alpine zone: Extreme tolerance of cold nights, with cryptic basking by day. *Journal of Thermal Biology* 99: art. no. 102957.
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Noticeboard

New Zealand Ecological Society Conference: 29 November – 1 December 2021

The 2021 New Zealand Ecological Society conference will be held at the Turner Centre at Kerikeri from 29 November - 1 December 2021 with field trips held on 2 December.



<https://www.isbe2020.com/program/call-for-abstracts/> -
Postponed to 11-16 September 2022

11th INTECOL International Wetlands Conference, Christchurch, 2021

The INTECOL Wetland Working Group (WWG) will hold the 11th INTECOL International Wetlands Conference in Christchurch, New Zealand, in October, 2021. The chair of the organizing committee is Philippe Gerbeaux, and the co-chairs are David Perenarra-O'Connell and Shona Myers. The chair of programme committee is Tim Davie. Other members of the committee are Stefanie Rixecker, Di Lucas, Deirdre Hart, Corinne Bataille, Katie Nimmo, and Jason Butt. Beautiful New Zealand is within about 10 h from most countries on the Pacific Rim. There are many outdoor pre- and post-meeting excursions available, including skiing within 1-2 hr of Christchurch. Much of Christchurch is built on wetlands. Crown Research Institutes and two universities are co-located there. The tentative conference theme is: Traditional knowledge and innovative science in wetland research and management. A strong Maori and Oceania cultural presence is guaranteed within and around the conference.

Stay tuned for more information! <http://intecol.org/node/37>

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