NEW ZEALAND ECOLOGICAL SOCIETY

Newsletter

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Artwork by Kate McAlpine: Kate McAlpine is a weed ecologist with DOC, and sometimes makes art out of leaves and flowers and other stuff she finds in nature. This one is all about NZ natives, particularly the weird and wonderful Poor Knights lily and fierce lancewood. More details (and other pics) on her website plantart.nz. She also posts weedy work stories on Instagram @katemcweedatwork

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From the Editor

Kia ora koutou,

I'm writing this introduction for this newsletter when it is finally sunny here in Christchurch (at long last!). I hope you all have been staying warm and dry, and this newsletter will provide you with some cosy reading.

In this newsletter, we have an update about our NZES Conference, which will be in Kerikeri from 29 November – 1 December. We also have some notices about other upcoming conferences and events. The newsletter also features Ecotones, highlighting some of the latest ecological research in Aotearoa New Zealand.

Enjoy the newsletter!

Ngā mihi,
Rowan

News from NZES council

Tim Curran

Kia ora koutou

We have some very exciting news from two of our Council members! Vice President Kiri Wallace will be having her first child later this year, and Councillor James Russell will soon be a dad for the second time. (James notes that it is further success from his longstanding collaboration with his wife Katherine: this makes two kids and two NZJE special issues together by the end of this year. That sounds like a great track record to me). Huge congratulations to Kiri and James, and to their partners Chris and Katherine. Understandably, Kiri and James will be stepping down from the NZES Council this year. I'll be giving both a more fitting tribute later in the year, but for now, thank you both so much for all you have contributed to Council over the last four and two years, respectively. Council will miss you.

Of course, this means that we are seeking additional members for the new Council from next year. Please get in touch if you are interested in joining a kind, fun and friendly team to help run your society. It's a great way to meet other ecologists from throughout the country and to help improve things for our profession.

In more exciting news, we welcome Symon Palmer to the NZES Council as our inaugural Māori representative. Symon is a Research Associate at Te Kawa a Māui The School of Māori Studies, Victoria University of Wellington, and also works on the invertebrate pest control project at Ngā Koiora Tuku Iho New Zealand's Biological Heritage. Thanks, Symon, for joining the team! We are all looking forward to your contributions on Council.

Finally, I wanted to thank our Treasurer Chris Bycroft for his hard work and patience in preparing the NZES' finances for our annual audit. This has been completed now, with time to spare, and everything is in order. Chris has also been overseeing the consolidation of NZES bank accounts and exploring the shift to more ethical financial institutions. Thank you for all your mahi, Chris. We greatly appreciate it.

Ngā mihi

Tim Curran

NZES Conference – Information and Survey

Join us for the 2021 New Zealand Ecological Society conference to be held at the Turner Centre at Kerikeri in the beautiful Bay of Islands from 29 November - 1 December 2021.

- Field trips will take place on Thursday 2 December.
- Student Day will be held on Sunday 28 November at Northtec, Kerikeri.

The conference rarely comes to the Far North, so we encourage delegates to make the most of this opportunity. As well as sharing the latest ideas in ecology and conservation, delegates will have the opportunity to observe some of Northland's iconic biodiversity in one of New Zealand's most important cultural centres.

Keynotes currently confirmed to date include:

Karen Pratt (Project Reef - South Taranaki) - 2020 Ecology in Action Award Recipient

Phil Lyver (Manaaki Whenua - Landcare Research) - 2020 Te Tohu Taiao Award for Ecological Excellence

Richard Robbins (Project Island Song)

John Innes (Manaaki Whenua - Landcare Research)

Finally, please take our survey if you haven't already about whether you are planning to attend the conference so we can gauge interest: https://www.surveymonkey.com/r/CTBJCBX

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
- Ecology in Action
- Honorary Life Membership
- Outstanding publication on New Zealand Ecology
- Best Publication by a New Researcher

Nominations for the 2021 award round are currently open - please see individual awards pages for application details. Society awards are due 1 October 2021.

The Society also offers the following student awards & grants for its annual conference:

- Outstanding Student NZES Conference Paper
- Outstanding Student NZES Conference Poster
- Student Travel Grants
- Kauri Seed Awards (for undergraduate ecology students)

Please note that conference award and grant applications are due by 3 September 2021.

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

Call for Contributors to Book on Protection and Restoration of New Zealand's Native Forests

Moshe Rapaport

I am seeking contributors for an edited book on the protection and restoration of New Zealand's native forests, in international perspective. Description: New Zealand was once highlighted as a classic case of "ecological imperialism."[1] In recent decades advances have been made in

[1] Crosby, Alfred W. *Ecological Imperialism. The Biological Expansion of Europe, 900-1900.* Cambridge University Press, 1986.

native species reforestation, pest management, predator-proof ecosanctuaries, and Indigenous stewardship. Now the country is vaunted as a "leader in conservation technology and research".[2] Is this praise justified? To what extent have such achievements been matched in similar biodiverse locations?

Details: Submissions should be broad overviews of any of the topics listed below, or other relevant topics, approximately 7,000 words in length. If interested, please send through an Expression of Interest.

Topic Outline:

1. Native Forests
2. Native Wildlife
3. Disturbance and change
4. Kaitiakitanga
5. Community action
6. Legislation
7. Fencing
8. Pest management
9. Reforestation
10. Translocation
11. Urban restoration
12. Novel ecosystems
13. Hawai'i
14. New Caledonia
15. Madagascar
16. Australia

Contact Dr. Moshe Rapaport at M.Rapaport@massey.ac.nz with questions or expressions of interest.

The due date for EOIs has been extended, and please note that topics are not limited to those listed in this announcement.

Submissions by tangata whenua are especially welcome.

[2] Simberloff, David, New Zealand as a leader in conservation practice and invasion management, *Journal of the Royal Society of New Zealand* 49(3), 2019.

IUBS 2020 Summary

The New Zealand Ecological Society is a constituent member of the International Union of Biological Sciences (IUBS). Here's a summary of the good work they did in 2020:

IUBS and inter Unions/ Organizations projects:

- **Climate Education :**

The project "TROP-ICSU: Trans-disciplinary Research Oriented Pedagogy for Improving Climate Studies and Understanding" was initiated in 2017 by IUBS and INQUA with different partners: IUSS, IMU, IUGS, IUGG, IUHPST, IUFRO, ICSU ROA, ICSU ROLAC, UTPL, Insa, NFS, AAS, Imaginary, WCRP, WMO, UNESCO. The financial support of ISC that stopped in 2019. The project is presently supported by IUBS.

Only few in presence training workshops could be organized in 2020: A TROP ICSU Lesson Plan Development Workshop oriented towards Australian curricula was conducted at the Australian Meteorological and Oceanographic Society's national conference in Fremantle, Western Australia on 14 February 2020.

In October 2020 the project crossed the mark of a hundred lesson plans developed. Some resources have been translated in various languages. Some lessons plans have been equipped with video tutorials useful both for teachers and self-learners. A webinar series was launched with Centre for Cellular and Molecular Biology (CCMB), India on Climate Change Challenge 2.0.

The project was presented at ICG Dehli.
https://tropicsu.org, https://climatescienceteaching.org

- **Standing Committee on Gender Equality in Science :**

At the end of the project "A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure It, How to Reduce It." The different partners decided to create a network on Gender Equality. IUBS with IMU, IUPAC, IUPAP and IUHPST worked on and MoU that was signed by different partners. The Standing Committee on Gender Equality in Science came into force at the first coordinating meeting in July 2020. Guy Smagghe from the IUBS Executive Committee is co-chair of SCGE. A statement on Gender Equality in times of Covid-19 was published at the end of 2020.

- **5th Science for Biodiversity Forum:**

Since 1998, IUBS has been actively partnering with the Secretariat of the Convention on Biological Diversity to organize with other organizations the Science for Biodiversity Forum in junction with the COP on Biodiversity. The COP of 2020 in Kunming China has been postponed to October 2021 as well as the joint event gathering the 5th Science for Biodiversity Forum and the 8th International Conference on Sustainability Science. Presently IUBS and Tokyo University will sponsor an online event that will take place before the in-presence meeting.

- **International Year of Basic Science for Sustainable Development:**

Several international scientific unions including IUBS wish to act together as the founding unions to organize the International Year of Basic Sciences for Sustainable Development under the aegis of UNESCO. Lily Rodriguez from IUBS is the vice-chair of the Executive Committee. Several online meetings with the different partners have been organized in 2020.

IUBS scientific programmes:

The programmes have been reviewed and approved at the General Assembly in 2019.

- **BHBD, open Biodiversity and Health Big Data:**

Over the past year, the BHBD programme has been mainly focusing on the scientific research and international collaboration in response to the COVID-19 pandemic. Significant progress has been achieved on the construction of the 2019 Novel Coronavirus Resource (2019nCoVR), tracing of virus origins, dynamic monitoring of virus genomes, virus variation analysis and literature mining. As of December 2020, 27 organization members from 12 countries have joined the BHBD Alliance. Events organized in 2020 by BHBD:

- The 2020 Annual Meeting of BHBD Alliance. July 21, 2020, online, 20 participants. Countries involved: Brazil, China, France, Pakistan, Russia,bSaudi Arabia, Thailand.
- The 5th Big Data Forum for Life and Health Sciences, October 15, 2020, online, 500 participants. Countries involved: China, Sweden, UK, USA.

- Webinar on COVID-19 Resources. December 4, 2020, online, 30 participants. Countries involved: Brazil, China, Iran, Malaysia, Pakistan, Russia, Thailand.

http://www.iubs.org/iubs-activities/scientific-programmes/bhbd-open-biod...

- **GIPP, Global Integrative Pastoralism Program:**

The program was adapted to focus on the establishment of partnerships critical for the development of its aims as well as marketing the relevance and collaborative needs. identified synergies with other organizations and established collaborative initiatives such as joint website development - notably with the League of Pastoralist People and their reserved web space (http://www.herding.community/) – as well as joined efforts in the design of data leveraging and mapping. Events organized in 2020 by GIPP :

- 16th -19th February, Limuru (Kenya) – coordination meeting for project kick-off coinciding with Pathways Africa 2020 conference. 3 participants of the advisory board (Kenya and Finland), plus other 10 participants from Kenya, the USA, the UK, Tanzania, Ethiopia, South Africa, and the Netherlands.
- March: Working group/Writing retreat Helsinki (board members and invited authors) to complete figures and writing for framework paper along advisory board meeting.
- Other planned meetings had to be cancelled due to the COVID-19 impact: At the Joint XXIV IGC and XI IRC Congress in Nairobi (delayed until October 2021). At FAO's Pastoralist Hub annual Partners' meeting (held virtually)

http://www.iubs.org/iubs-activities/scientific-programmes/global-integra...

IUBS new initiatives:

- **IUBS Working Group on Zoonotic Diseases:**

In 2020 IUBS established a Working Group on Zoonotic Diseases in order to adopt an integrative, multi- disciplinary approach to understand the factors affecting the prevalence of zoonotic diseases. The diseases can be virus, bacterium or a host of many other parasites. Both human and animals can be natural reservoir of these pathogens, which circulate between people and animals. Therefore, involving multiple life sciences

such as zoology, ecology, epidemiology, molecular biology, climate change biology, environmental biology is necessary to inform the policy making realm.

The coordinating meeting with the different experts of the group was organized online on 29 September 2020. A series of mini-conferences is planned in 2021.

http://www.iubs.org/iubs-activities/new-initiatives/zoonotic-diseases.html

- **IUBS Working Group on Gender Equality:**

The WGGE's primary objective is to ensure that there is a fair gender representation in all activities conducted by the Union. The IUBS policy is regularly reviewed, and new propositions are made to the Executive Committee.

The group organized several online meetings in 2020 and submitted an article in Pure and Applied Chemistry Journal that will have a special issue on Gender Gap.

http://www.iubs.org/iubs-activities/new-initiatives/gender-equality-in-s...

- **Environmental Education and Climate Resilient Plants**

After the second review following the General Assembly, the project was approved as a new initiative.

The initiation workshop on "Environmental Education and Climate Resilient Plants" was organized through Video Conferencing on December 28, 2020 from 7 pm to 11 pm (IST). In this workshop 14 leaders from 10 countries (China, Germany, Finland, Bangladewsh, Spain, USA, Ecuador, Mexico, Nepal and India)

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. Participatory conservation planning programmes are effective at saving species

Efforts to prevent the extinction of many threatened species have now been in place for many years and best practice is now to start with a participatory method of conservation planning involving multiple stakeholders. Nevertheless, reports of the numbers of threatened species and their conservation statuses don't seem to change over time; indeed, they appear to be getting worse. So, is such conservation planning for these species effective? Lees et al. 2021 have recently carried out a structured analysis of the effectiveness of conservation planning by looking at outcomes for 35 species (mostly mammals) in 23 countries (none from New Zealand) over 13 years. With these data, they predicted the extinction trends of these species if planning had not taken place and compared these with the observed trends 10- 15 years after planning had been introduced. After the planning process and implementation of these conservation plans, threatened species declines initially continued, then slowed, then reversed. No species with plans became extinct, whereas the predicted trajectories without planning suggested eight species would now be extinct. This is an important analysis as it provides defensible evidence that science-based, participatory approaches to conservation planning can create a turning point for threatened species and should be applied more widely.

Lees CM, Rutschmann A, Santure AW, Beggs JR 2021. Science-based, stakeholder-inclusive and participatory conservation planning helps reverse the decline of threatened species. Biological Conservation 260: 109194.

Humboldt penguin (*Spheniscus humboldti*) was part of the conservation planning assessment of Lees et al. (2021). Image Source: Adam Kumiszcza/Wikimedia Commons

2. Designing forest landscapes for karearea

Plantation forests, largely monocultures of *Pinus radiata*, cover around 8% of New Zealand's land area. Rather than being barren of native biodiversity, however, they are being increasingly shown to support many native species, some threatened. A key question for these forests is whether management can enhance habitat for these natives sustainably? A notable threatened species of these forests is the kārearea/New Zealand falcon (*Falco novaeseelandiae*) with populations resident and breeding in plantations. Horikoshi et al. (2021) have studied kārearea populations within Kaingaroa Forest in the central North Island over recent years, and have clearly shown that the landscape structure of the

forest, i.e. the sizes and arrangements of patches of different age, have substantial effects on kārearea habitat quality and carrying capacity. Kārearea preferentially use open patches and edges between mature stands and recently cleared areas for nesting and hunting. Home range sizes are smaller when these landscape features are abundant within the home range. Likelihood of nesting, however, decreases as open patches increase in area beyond about 2-3 km^2. These results indicate that managing a forest to create a heterogenous landscape structure of relatively small, uneven-aged patches would enhance habitat quality of the forest for kārearea. Horikoshi et al. (2021) advocate for increasing the density of edges between mature and recently replanted patches in forests, perhaps by retaining small blocks of mature trees in larger clearfells if necessary, and keeping open patches <4km^2.

Horikoshi C, Battley PF, Minot EO 2021. Designing timber harvesting to enhance New Zealand falcon populations. Journal of Wildlife Management 85 (3): 556-568.

https://www.rnz.co.nz/national/programmes/ourchangingworld/audio/2018675137/nz-falcons-thriving-in-logged-pine-plantations

Kārearea (*Falco novaeseelandiae*) in plantation forest. Image source: Tony Wills/Wikimedia Commons.

3. Shifting baseline syndrome is alive and well in New Zealand

Shifting baseline syndrome (SBS) is a concept that describes how different generations perceive and interpret natural resource states (e.g. population sizes of key species) differently. Without observations in their lifetimes of what population sizes key species can attain, younger generations become less aware of biodiversity loss than older generations, with subsequent intergenerational differences in the aspirational levels of resource states expected of restoration or conservation initiatives. Recently Lyver et al. (2021) have researched whether such intergenerational diminishment of understanding around the abundances of species occur within a Māori community who live within a forested ecosystem. They worked with Tuawhenua Māori from Ruatāhuna in structured interviews comparing what respondents perceived ordinal categories of abundance or size translated to in terms of specific quantities. For three species (kererū, eel, possum), they found clear evidence of an age effect on how abundances of these species were perceived by interviewees, i.e. SBS. For example, the few older respondents could remember the massive scale of kererū flocks that congregated during miro fruiting seasons prior to the 1950s, whereas younger respondents had no such experiences. In general, Lyver et al. (2021) also argue that the decoupling of indigenous peoples from their traditional lands and biodiversity has exacerbated SBS, and advocate for initiatives that would re-establish connections.

Lyver POB, Timoti P, Richardson SJ, Gormley AM 2021. Alignment of ordinal and quantitative species abundance and size indices for the detection of shifting baseline syndrome. Ecological Applications, in press.

Long-finned eels (*Anguilla dieffenbachia*) abundance subject to shifting baseline syndrome at Ruatāhuna. Image source: Peter Harrison/Wikimedia Commons.

4. Swan plants benefit from the success of paper wasps

A swan plant (*Gomphocarpus physocarpus*) seedling self-established in the garden outside my laundry door earlier this year and I expected to see it summarily ravaged by the feeding of Monarch butterfly (*Danaus plexippus*) caterpillars, as other such swan plant seedlings have suffered before. It continues to grow unscathed, however, so where have all the Monarchs gone? A paper published this year by McGruddy et al (2021) helps explain this mystery. They investigated the butterfly landscape of the Nelson Region where the European paper wasp (*Polistes dominula*) established around 2011. An annual survey of butterfly abundance there from 2009 showed a significant decline in all butterflies but particularly Monarch butterflies (66% decline) starting around 2015. As well, Monarch caterpillars experimentally placed on swan plants in Nelson gardens were quickly preyed on by foraging *P. dominula*. Only 45% of these caterpillars remained after only 6 hours exposure. In a classic example of a trophic cascade, McGruddy et al (2021) also showed that swan plants are growing and reproducing much more successfully with the decline in the Monarch caterpillar population. This paper is important on several issues. It provides clear evidence of butterfly decline in New Zealand with Monarch decline an indicator of what may be happening to native species. It also suggests that swan plant may now be released from herbivore

control and may add to New Zealand's already impressive list of problem weeds.

McGruddy RA, Howse MWF, Haywood J, Ward CJI, Staufer TB, Hayek-Williams M, Toft RJ, Lester PJ 2021. Invasive paper wasps have strong cascading effects on the host plant of monarch butterflies. Ecological Entomology 46 (2): 459-469.

European paper wasp (*Polistes dominula*), a recent invader to New Zealand. Note the two yellow dots on the thorax near the head, which are diagnostic for this species. Image source: Garnhami/Wikipedia Commons.

5. Tracking the origins of the kauri dieback organism

Kauri dieback has emerged over the last two decades as a major root rotting disease of kauri (*Agathis australis*). The causal organism of this dieback has been recently described and given the name *Phytophthora agathidicida*. In trying to understand this disease, the questions arise as to where this organism came from and when did it arrive/arise in New Zealand? The comparatively recent emergence of the disease and previously recognised low genetic variance of isolates has to date been considered evidence of a recent arrival (i.e. post 1945). Winkworth et al. (2021), however, have now published a more in-depth analysis based on genetics to consider these questions. They compared the mitochondrial genomes of 16 *P. agathidicida* isolates and compared these against five isolates from sister *Phytophthora* taxa. They also used a molecular clock approach based on rates of genome change in the well-known *P. infestans* to estimate when any divergence in *P. agathidicida* genomes would have occurred. Despite highly similar genomes amongst all the isolates studied, some geographically structured variation in *P. agathidicida* genomes was recognised across its range in New Zealand. Assuming that a genetically uniform *P. agathidicida* colony originally arrived, the molecular clock analyses of this study indicate an arrival of this about 300 years ago, older than currently hypothesised. These exciting new results throw up a range of new possibilities for the history, distribution of the organism, and expression of the disease, that will require further scrutiny. There is still much to learn to understand and mitigate the negative consequences of kauri dieback.

Winkworth RC, Bellgard SE, McLenachan PA, Lockhart PJ 2021. The mitogenome of Phytophthora agathidicida: Evidence for a not so recent arrival of the "kauri killing' Phytophthora in New Zealand. PLOS ONE 16(5): e0250422.

Young kauri succumbing to kauri dieback, Waitakere Ranges. Image source: Bruce Burns.

NZ Bird Atlas

Dan Burgin

AWIS Conference Notice

The Association for Women in the Sciences (AWIS) triennial conference provides an opportunity for women working in or supporting the sciences to develop their skills to support their professional advancement, and opportunities to learn from and network with other women working in the sciences.

Through AWIS 2021, women in the sciences will have the opportunity to learn skills to support their professional careers – such as facing unconscious bias and identifying mentors – as well as gain more understanding about issues facing women in STEM and how these may be addressed.

AWIS 2021 will be held in Dunedin 8-9th July 2021
For more info: https://www.awis.org.nz/awis2021/

Cheers,
Organizing Committee - Carolina Loch, Belinda Cridge, Natalie Harfoot, Esther Haines, Lucia Malone, Daniela Aldabe, Angela Brandt, Jesu Valdez

Publications in the current issue of NZ Journal of Ecology (Volume 45, Issue 1)

Research Articles

Intake of sugar water by kākā in Orokonui Eco-sanctuary : 3431
Anna Aichele, Philip Seddon, Yolanda van Heezik

Twenty years on: changes in lizard encounter rates following eradication of rats from Kāpiti Island : 3423
Jennifer F. Gollin, Nic Gorman, Doug P. Armstrong

Penned release reduces area use by translocated barking geckos (Naultinus punctatus) : 3432

Tom P. Flynn-Plummer, Joanne M. Monks

Using para-aminopropiophenone (PAPP) as a tool to control feral cats in Hawke's Bay, New Zealand : 3424
Natalie de Burgh, Al S. Glen, Kelly Mayo, Mark Mitchell

Patterns of woody plant epiphytism on tree ferns in New Zealand : 3433
James M. R. Brock, Bruce R. Burns

Rivers as obstacles to home range expansion by the brushtail possum : 3426

Briar Cook, Nick Mulgan, Helen Nathan

Social networks and social stability in a translocated population of Otago skinks (Oligosoma otagense) : 3434
Vanitha Elangovan, Luke Bovill, Alison Cree, Joanne M. Monks, Stephanie S. Godfrey

The significance of sheep and beef farms to conservation of native vegetation in New Zealand : 3427

Jennifer L. Pannell, Hannah L. Buckley, Bradley S. Case, David A. Norton

Bioacoustic monitoring of lower North Island bird communities before and after aerial application of 1080 : 3435

Roald Bomans, Asher Cook, Stephen Hartley
Do woody plants create 'fertile islands' in dryland New Zealand? :

Amadou Camara

Dual aerial 1080 baiting operation removes predators at a large spatial scale : 3428

Margaret Nichols, Helen Nathan, Nick Mulgan

Dactylanthus flower visitation by New Zealand lesser short-tailed bats appears to be influenced by daily rainfall : 3436
Zenon J. Czenze, Tertia Thurley

Managing and protecting native biodiversity on-farm – what do sheep and beef farmers think? : 3420
Fleur J. F. Maseyk, Bruce Small, Roxanne J. T. Henwood, Jennifer Pannell, Hannah L. Buckley, David A. Norton

Occupancy and relative abundances of introduced ungulates on New Zealand's public conservation land 2012–2018 : 3437
Paul D. Moloney, David M. Forsyth, David S. L. Ramsay, Mike Perry, Meredith McKay, Andrew M. Gormley, Benno Kappers, Elaine F. Wright

Assessing kea perception of cereal baits using modelling of spectral reflectance : 3421

Amy L. Brunton-Martin, Maggie Nichols, Anne C. Gaskett

Measuring rat relative abundance using camera traps and digital strike counters for Goodnature A24 self-resetting traps : 3430

Markus Gronwald, James C. Russell

Networks and themes in the publications of the New Zealand Ecological Society over the last six decades : 3438
George L. W. Perry, Matt S. McGlone

Protecting the unseen majority: Land cover and environmental factors linked with soil bacterial communities and functions in New Zealand : 3422

Steven A. Wakelin, Sean T. Forrester, Leo M. Condron, Maureen O'Callaghan, Peter Clinton, Rebecca L. McDougal, Murray Davis, Simeon J. Smaill, Sarah Addison

Review Article

Good predators: the roles of weka (Gallirallus australis) in New Zealand's past and present ecosystems : 3425
Joanna K. Carpenter, John G. Innes, Jamie R. Wood, Phil O'B. Lyver

Forum Article

Understory vegetation provides clues to succession in woody weed stands : 3418
Kate G. McAlpine, Shona L. Lamoureaux, Susan M. Timmins

Short Communication

Why have so few Māori or Moriori names been used in taxonomic description? : 3429
Ross Galbreath

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.

Aislabie J, McLeod M, McGill A, Rhodes P, Forgie S 2021. Impact of dung beetle activity on the quality of water percolating through allophanic soil. Soil Research 59 (3): 266-275.

Alder A, Jeffs A, Hillman JR 2021. Considering the use of subadult and juvenile mussels for mussel reef restoration. Restoration Ecology 29 (3): art. no. e13322.

Anderson SH, Ladley JJ, Robertson AW, Kelly,D 2021. Effects of changes in bird community composition and species abundance on plant reproduction, through pollination and seed dispersal. Ibis, in press.

Atalah J, Fletcher LM, Forrest BM 2021. Impacts of a putative invasive ascidian on rocky shore communities. Marine Environmental Research 168: art. no. 105308.

Banks JC, Kelly LT, Falleiros R, Rojahn J, Gabrielsson R, Clapcott J 2021. Detecting the pest fish, *Gambusia affinis* from environmental DNA in New Zealand: a comparison of methods. New Zealand Journal of Zoology, in press.

Barceló A, Sandoval-Castillo J, Stockin KA, Bilgmann K, Attard CRM, Zanardo N, Parra GJ, Hupman K, Reeves IM, Betty EL, Tezanos-Pinto G, Beheregaray LB, Möller LM 2021. A matter of scale: population genomic structure and connectivity of fisheries at-risk

common dolphins (*Delphinus delphis*) from Australasia. Frontiers in Marine Science 8: art. no. 616673.
Barlow DR, Klinck H, Ponirakis D, Garvey C, Torres LG 2021. Temporal and spatial lags between wind, coastal upwelling, and blue whale occurrence. Scientific Reports 11 (1): art. no. 6915.
Bennington S, Rayment W, Currey R, Oldridge L, Henderson S, Guerra M, Brough T, Johnston D, Corne C, Johnson D, Slooten L, Dawson S 2021. Long-term stability in core habitat of an endangered population of bottlenose dolphins (*Tursiops truncatus*): Implications for spatial management. Aquatic Conservation: Marine and Freshwater Ecosystems 31 (3): 665-676.
Biddick M, Burns KC 2021. A simple null model predicts the island rule. Ecology Letters, in press.
Boddy NC, McIntosh AR 2021. Could spatial heterogeneity in flow disturbance drive temporal stability of native–invasive species co-occurrence in riverscapes? Freshwater Biology 66 (5): 902-913.
Bowden DA, Anderson OF, Rowden AA, Stephenson F, Clark MR 2021. Assessing habitat suitability models for the deep sea: is our ability to predict the distributions of seafloor fauna improving? Frontiers in Marine Science 8: art. no. 632389.
Boyd-Wilson KSH, Marroni MV, McNeill MR, Teulon DAJ 2021. New Zealand indigenous Myrtaceae in foreign botanic gardens: Testing the sentinel plant concept for biosecurity risk assessment. New Zealand Plant Protection 74 (1): art. no. 11728.
Busbridge S, Clarkson BD, Wallace KJ 2021. A tenuous link: Information transfer between urban ecological research and restoration practice. Urban Forestry and Urban Greening 60: art. no. 127019.
Carrington VG, Papa Y, Beese CM, Hall J, Covain R, Horn P, Ladds MA, Rogers A 2021. How functionally diverse are fish in the deep? A comparison of fish communities in deep and shallow-water systems. Diversity and Distributions, in press.
Carter ZT, Bodey TW, Russell JC 2021. Terrestrial vertebrate survey of Motukawanui. New Zealand Journal of Zoology, in press.
Carter ZT, Lumley T, Bodey TW, Russell JC 2021. The clock is ticking: Temporally prioritizing eradications on islands. Global Change Biology 27 (7): 1443-1456.
Chukwuka CO, Mello RSR, Cree A, Monks JM 2021. Thermal heterogeneity of selected retreats in cool-temperate viviparous lizards suggests a potential benefit of future climate warming. Journal of Thermal Biology 97: art. no. 102869.
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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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