Newsletter

PEOPLE CITIES NATURE

March 2023

RESEARCH LEAD MESSAGE

Professor Yolanda van Heezik

Research leader: Residential design for biodiversity

Kia ora koutou,

Is New Zealand doing a great job of creating biodiverse residential developments? We don't think so! Our team, 'Aotearoa BiodiversCity' combines expertise in sustainable architecture and urban design (Maibritt Pedersen Zari, AUT), urban planning (Claire Freeman, University of Otago), and biodiversity conservation (Chris Woolley, Danielle Shanahan (Zealandia), Yolanda van Heezik (University of Otago)) to explore ways to design biodiverse built structures and neighbourhoods.

Kamiya Varshney and Maggie MacKinnon have been pulling information together from international and national examples of best policy and practice.

Mia Te Tana and Robbie Brigham completed their Masters in Planning research on specific medium-density developments in several cities, and make recommendations on bio-diversity-enhancing strategies for policymakers, local authorities and property developers.

This year, Emma Kuparinen, Sarah Copeland and Mollie Keaney (MPlan students) will look at retro-fitting existing developments, exploring alternative con-figurations that developers could consider, and how to enhance green linkages between new housing developments and their surrounds. Katie Jenkins is a Master of Landscape Architecture student who will investigate design strategies for creating more biodiverse medium-density development, and Jacqui Theis will be developing biodiversity evaluation tools at the scale of the building, and the dev-elopment. Chris Woolley, our post-doctoral fellow, is going to start talking to professionals involved in designing and building developments to try to understand more about the barriers to good design, and how to incentivise better practice.

To keep up with our progress or learn more about the project visit peoplecitiesnature.co.nz.

HIGHLIGHTS

- Ngā Pou Tuata o Kirikiriroa Wānanga
- GardenStar competition winner
- Society for Ecological Restoration symposium coming up in 2023

GardenStar winner Natalie Kusab's biodiverse backyard

SER 2023 SYMPOSIUM

People, Cities & Nature will be hosting a symposium and workshop at this year's Society for Ecological Restoration world conference in Darwin. The topic is 'Global research priorities for urban restoration'. We invite the participation of interested researchers, practitioners and public to explore urban restoration with our team of experts and help us assess paths forward toward sustainable urban living. The conference will take place over 26th-30th of September. Register at SER2023.org.

GARDENSTAR WINNER

This quarter, Kiwi gardeners got on board with People Cities & Nature's GardenStar tool for assessing backyard biodiversity. The tool was developed by Yolanda van Heezik and Phillip Seddon to help residents take stock of the biodiversity value of their backyard. The GardenStar tool is also raising awareness of the kinds of attributes and activities that make biodiverse backyards.

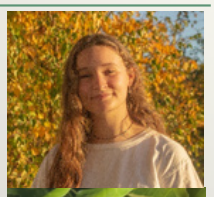
Residents were invited to download the tool, asses their backyard, and then submit their score on the website. Those that submitted their score before 31 December 2021 went into the draw to win a $100 Mitre10 voucher. Natalie Kusabs (garden pictured left) was the lucky winner. The tool is available for download at www.peoplecitiesnature.co.nz/tools .

NEW RECRUITS

Three new students have joined the People, Cities & Nature team this year, embarking on a Masters of Planning at the University of Otago. These students are working under the supervision of Claire Freeman.

Emma Kuparinen (top) is researching 'Supporting and retrofitting biodiversity in urban residential neighbourhoods'. Sarah Copeland (middle) is researching 'Spatial planning and residential design for biodiversity'. And Mollie Keaney (bottom) is working on 'Planning for ecological connectivity in New Zealand cities'.

See more about our team at: www.peoplecitiesnature.co.nz/ourpeople



RESEARCH REPORTS

People Cities & Nature have recently published a series of research reports based on our findings to date. There are six reports in the series, with four published and two coming soon. Currently available reports include findings on urban plantings, urban lizards, urban greenspace, and cross-sector partnerships.

Download the reports at: www.peoplecitiesnature.co.nz/publications

FAIRFIELD WĀNANGA

In February, teachers and students from six schools across Hamilton came together at Aratiatia Marae, Fairfield College to explore maramataka and mātauranga in urban restoration with the second wānanaga in our series Ngā Pou Tuata o Kirikiriroa Wānanga.

The wānanga included presentations from Wiremu Puke on the history of Kirikiriroa, and the traditional use of stone tools for carving; and Dr Rachel Nepia on gully restoration and the traditional uses of gully plants. Professor John Innes discussed the ecology of urban birds, and Professor Megan Balks gave a brief history of the development of Hamilton's gully system.

One teacher remarked that the event was "an awesome intertwining of matauranga māori and new science and technology". And a student commented "I learnt more about Māori culture and sustainability. I think its cool how [People Cities & Nature] have a plan to connect people with nature."

Each of the wānanga participants went home with a seedling of harakeke (*Phormium tenax*) or tī kouka (*Cordyline australis*) to plant at their home or marae.

The next wānanga in the series will take place in May and will focus on engaging with corporate entities for restoration outcomes. The final wānanga will be in August and will include an overnight stay at Hukanui marae. We will explore the stars at night, and the forest during the day. Follow us on facebook for more information or email peoplecitiesnature.co.nz to register your interest.

SUMMER FIELD WORK

Eva Kessels is a Master of Science student at Victoria University of Wellington. For her field work this summer Eva visited schools and housing development sites, to assess mitigation design and biodiversity offset strategies. Eva has been surveying for resident lizards at Pāuatahanui School, Otari School and Koraunui School around the Wellington region. Running an experiment with the involvement of primary-school aged children has been exciting and energising. Presence of lizards has been confirmed at both Otari School and Koraunui School. Eva has been installing rock-filled gabion baskets, embedded with tracking tunnels, to see whether lizards use gabion baskets. She has been taking an opportunistic approach to surveying for lizards at housing development sites and at sites where lizards are released as a result of mitigation translocation. Lizard data collected from these sites will be combined into a species' distribution model for urban lizard habitat in Wellington.

Tracking tunnel (top) and lizard monitoring apparatus (below) installed by Eva Kessels during her summer fieldwork.

IN THE NEWS

MSc student, Ange Knight, has been working on a project putting cameras on cats. This research was featured in the the Otago Daily Times - https://www.odt.co.nz/news/dunedin/cats-cameras-helping-pest-control-research

Research by Craig Liddicoat and Martin Breed on soil biodiversity and human health was featured in this news publication: https://news.flinders.edu.au/blog/2023/02/20/26002/

UPCOMING EVENTS

May 2023: Ngā Pou Tuata ō Kirikiroa wānanga - the third of four wānanga based in Hamilton on the topic of maramataka and mātauranga in restoration.

26th – 30th September 2023: Society for Ecological Restoration international conference. People, Cities & Nature is hosting a symposium and workshop on the theme of Global Research Priorities for Urban Restoration. Register at SER2023.org.

RECENT PUBLICATIONS

Sun X, Liddicoat C, Tiunov A, Wang B, Zhang Y, Lu C, Li C, Scheu S, Breed MF, Geisen S, Zhu YG. Harnessing soil biodiversity to promote human health in cities. npj Urban Sustainability. doi: 10.1038/s42949-023-00086-0

Warbrick I, Heke D, Breed MF. 2023. The colonisation of the unseen, and the disconnection of Indigenous peoples from the microbes that shaped us. mSystems. doi: 10.1128/msystems.00875-22

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GLOBAL RESEARCH PRIORITIES FOR URBAN RESTORATION

SER2023 SYMPOSIUM & WORKSHOP

26-30 SEPTEMBER

DARWIN, AUSTRALIA

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restoring indigenous nature in urban environments

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Explore a holistic approach to restoring nature in urban environments:

- Designing cities for engagement with nature
- Restoring wildlife and managing urban pests
- Links between restoration and human health
- And co-developing restoration activities with indigenous peoples for restoration outcomes beyond biodiversity.

Then join a team of urban research experts to assess paths forward toward sustainable urban living in our urban restoration workshop.

REGISTER AT SER2023.ORG