



# TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 221

August 2022

Deadline for next issue:  
Friday 23 September 2022

## SUBMIT AN ARTICLE TO THE NEWSLETTER

Contributions are welcome to the newsletter at any time. The closing date for articles for each issue is approximately the 15th of each month.

Articles may be edited and used in the newsletter and/or on the website news page.

The Network will publish almost any article about plants and plant conservation with a particular focus on the plant life of New Zealand and Oceania.

Please send news items or event information to [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz)

### Postal address:

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Mangonui 0442  
NEW ZEALAND

## PLANT OF THE MONTH, p. 2

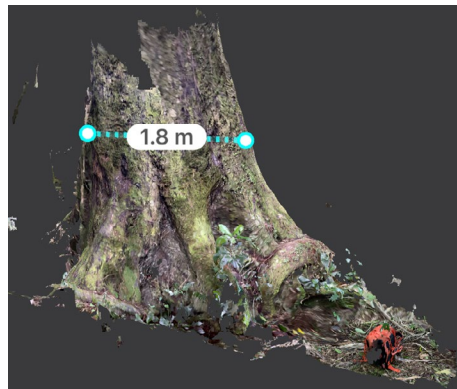


*Gingidia flabellata*. Photo: Rowan Hindmarsh-Walls.

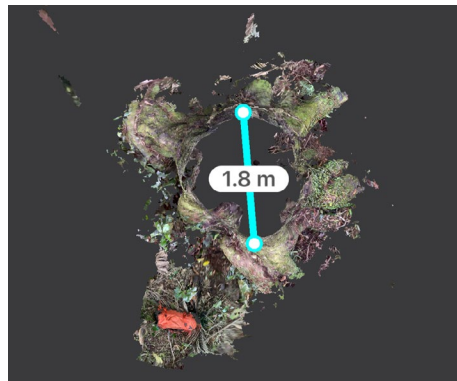
## Are tape measures outdated?

Taylor Davies-Colley ([taylordaviescolley@gmail.com](mailto:taylordaviescolley@gmail.com))

When packing for a recent trip to Northland I decided to leave out my tape measure. This is an item I normally always carry, as I have a burning desire to always know just how big some trees are. I had thought I wouldn't need it this trip but I was wrong. I was visiting whānau in Whangārei, so decided while there to visit the Pukenui forest.



A side-on view of the scan with my orange camera bag in the foreground showing some scale.



A top-down view of the scan.

Pukenui is over 2000 hectares of mixed native forest made up of multiple council and DOC reserves just west of the main urban area of Whangārei. Most is classic coastal Northland broadleaf podocarp forest, with some small patches of kauri (*Agathis australis*) persisting in some areas. Surprising to me though was the presence of a particularly large kahikatea (*Dacrycarpus dacrydioides*). This large tree had a straight trunk, no obvious signs of rot or damage and was not in a particularly steep or inaccessible place. It would seem it must have been luck or a desire for preservation that saved this enormous specimen from the loggers' saws. But how big was this tree and how could I tell without a tape?

Some people might be familiar with the use of LIDAR in forestry science as a tool to find big trees, remotely estimate tree height, canopy size and carbon storage of forests. This tool has now made its way into mobile phones. Using a feature I had considered a gimmick until now, I took a 3D scan of the tree and measured the scan to get a diameter estimate of 1.8m, all in a space of a few minutes. These tools still have a long way to go before they will provide the accuracy many of us are used to, and the risk of your tape measure running out of battery power is much lower. Despite this though, they show promise of a new way we can take measurements of plants and also as a way we can engage others with them. One could for example scan a small alpine species and project it using AR (Augmented Reality) to show others its scale and shape with them having to leave an office. Or perhaps children from the south could use VR (Virtual Reality) goggles to stand next to a kauri and marvel at its size without needing to travel the length of the country. It is an exciting future, but I imagine it will be a long time before conventional tape measures become truly outdated. As of now, scanning like this with smartphones is only able to be done using some iPhones and iPads, so it will be interesting to see whether other brands develop similar technology.

## PLANT OF THE MONTH – *GINGIDIA FLABELLATA*

Rowan Hindmarsh-Walls ([rowan.hindwalls@gmail.com](mailto:rowan.hindwalls@gmail.com))

The plant of the month for August is *Gingidia flabellata*, one of at least nine species of *Gingidia* endemic to the New Zealand region. This species is only found on Rakiura/Stewart Island, mainly in the western and southern portions of the island. It favours damp infertile crevices in rock outcrops where there is little competition from other plants, and can be found from the coast up to at least 700 m above sea level on the ranges of the island. It is probably a fairly long-lived species, as it grows slowly in the nutrient poor granite and peat based soils.

*Gingidia flabellata* is small and prostrate, with pinnate, fleshy, and shiny bright to purple-green leaves. The leaflets have toothed edges and are often curled slightly. The small whitish and rather unspectacular flowers are borne on short umbels on a stumpy inflorescence.



*Gingidia flabellata*, Tin Range, Rakiura National Park, 13 March 2017. Photos: Rowan Hindmarsh-Walls.

The species is most similar in looks to *Gingidia decipiens*, and is apparently allied to *Gingidia enysii*. Neither of these two species are found on Rakiura, meaning *G. flabellata* is geographically separated from them both. It is also easily distinguished from *G. enysii* by the lack of glaucous bloom on the leaves.

*Gleichenia flabellata* has a conservatin status of 'At Risk – Naturally Uncommon', as it has a small distributional range and is fairly scattered within this due to its narrow habitat preferences. It has no known threats apart from being occasionally browsed by animals, mainly deer or possums. There are very few exotic weed plants in the range of the species, but if introduced grasses and herbs were to colonise more of the western and southern parts of the island these could start competing with the species for space.

The genus *Gingidia* is small, with fewer than 15 species being found across the genera's range from south-eastern Australia to New Zealand. The New Zealand species are all endemic. Most species occupy open rocky habitats, but are occasionally found in shrubland, and some are found up into high alpine environments.

The genus name *Gingidia* is based on the vernacular name of a Syrian species of *Daucus* (Carrot). This species epithet *flabellata* means 'fan-shaped' in Latin, and in this case possibly refers to the fan-shaped leaflets, or maybe the flat fans of leaves arising from each rosette.

You can view the NZPCN website factsheet for *Gingidia flabellata* at: <https://www.nzpcn.org.nz/flora/species/gingidia-flabellata/>

## A brief botanical survey of the Tutaki West Headwaters wetland

*Alex Fergus, Gretchen Brownstein, James Arbuckle, Robbie Price, Olivia Burge*

During January and February 2022, a group of wetland enthusiasts from Manaaki Whenua – Landcare Research began work on a project led by Olivia Burge on classification of New Zealand wetland vegetation. The classification process includes turning hundreds of wetland plot data sheets into sets of recognisable plant ‘communities’, and then linking these communities to soil nutrient gradients. The outcomes of the work will aid local and central government in an understanding of how the vegetation at the wetland sites they administer fit into the national context. This will also allow detection of vegetation changes through time induced by shifts in nutrient regimes. This work builds on that completed by Susan Wiser, Fiona Thomson and Miguel De Cáceres (Wiser et al. 2016), who classified the non-forested vegetation of New Zealand, but found few wetland communities due to a lack of data.

To check if the existing data (sourced from Regional Councils, Department of Conservation, and the New Zealand wetland database) provided reasonable coverage of New Zealand wetlands, we undertook a spatial assessment of data representation across New Zealand by climatic zone. The eastern South Island and central mountain areas of New Zealand were two of the most under-sampled areas despite containing plenty of wetlands. To remedy this, we undertook two field trips to collect additional data from wetlands in these regions in early 2022.

Our first field trip focused on the central South Island, taking in Dunedin to Omarama. We frequently encountered wetlands with low wetland condition index values (Clarkson et al. 2004). The wetland condition index metric captures multiple variables including the impact humans have had on the hydrology, ecosystem intactness and dominance/occupancy of a system by indigenous plants and animals. A low value equates to high human impact. Our second trip encompassed more remote wetlands with fewer human induced changes. Sampling pristine wetlands is vital to build an understanding of reference conditions, against which councils and others can judge anthropogenic impacts in the wetlands they monitor.



Figure 1. View from helicopter on arrival capturing the mosaic of bogs and pools between forested margins. All photos: Alex Fergus.

Of the many remarkable wetlands we visited on the second trip, (including the Mackay Downs, Stockton and Denniston plateaus, and the Thousand Acre Plateau), the Tutaki West Headwaters wetland caught our attention as something that might be of interest to *Trilepidea* readers, as in the first instance, we could not find a relevant species list on the usually excellent NZPCN plant lists page.

Early on a February morning we flew from Murchison to the Tutaki West Headwaters wetland system (Figure 1), where we had only about 5 hours on site. The wetland system lies north-west of the

confluence of the Tutaki River east branch and the Mātakitaki River, between 920 and 940 m elevation. As the name suggests, the wetland sits at the head of the catchment which feeds the west branch of the Tutaki River (Figure 2). Before arriving on site we had mapped (using balanced-acceptance sampling, van Dam Bates et al. 2018) numerous hypothetical vegetation plot locations and our time was spent surveying as many of these as possible.

The Tutaki West Headwaters wetland system is primarily a mosaic of bog and pools; around part of the wetland margin there is likely some surface run-off contributing hydrological input, here it may be more fen than bog. We measured seven vegetation plots within the wetland (Figure 2), six of these were 5 × 5 m quadrats in wetland vegetation, the seventh was a 20 × 20 m quadrat starting at the edge of the forest ecotone, being predominantly forest. We used the inventory and condition indices detailed in Clarkson et al. (2004).

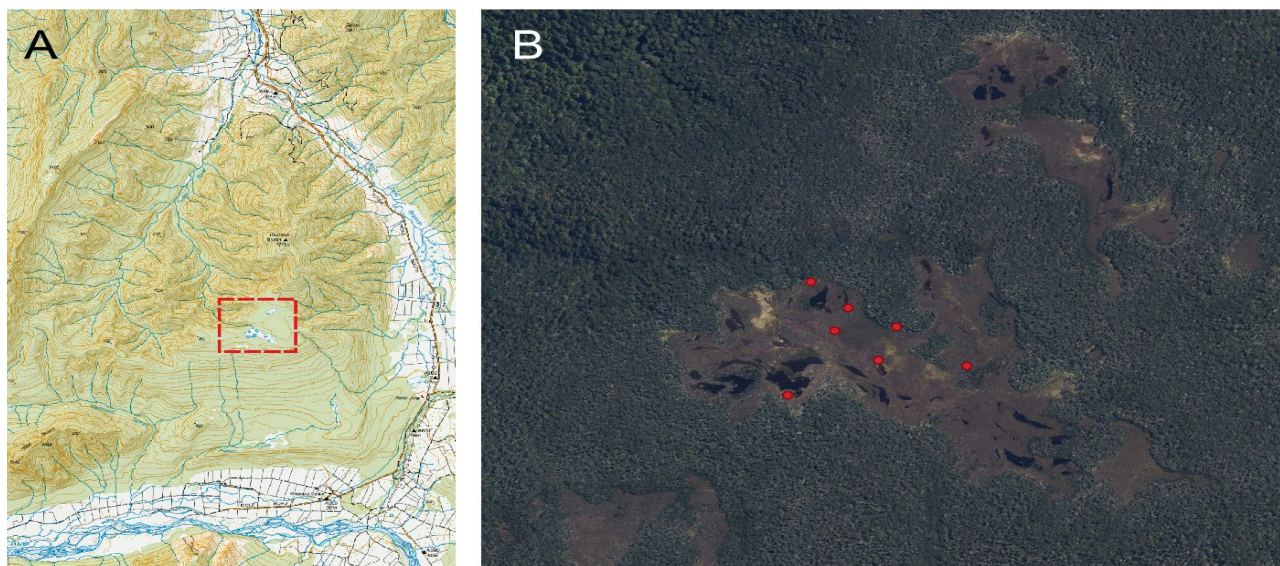


Figure 2. Location of the Tutaki West Headwaters wetland north-west of the confluence of the Tutaki River East Branch and the Mātakitaki River (A); and location of vegetation plots (red points) in the wetland matrix (B).

The bog vegetation is dominated by cushions of comb sedge – *Oreobolus pectinatus*, *O. strictus*, and *Sphagnum* spp. with turfs of wire rush – *Empodisma minus* also common (Figure 3). *Centrolepis ciliata* and to a lesser extent *Gaimardia setacea* are common beneath and around these species. Gaudichaud's sedge – *Carex gaudichaudiana* and star sedge – *Carex echinata* are the most common Carices. Pygmy pine – *Lepidothamnus laxifolius* and *Pentachondra pumila* are also common. Beyond the short bog vegetation wire rush is ubiquitous across the site being common under taller heath-like vegetation (Figure 4), even making its way some distance into the surrounding forest. Bog pine – *Halocarpus bidwilli* and *Dracophyllum palustre* are common as a heath-like scrub in slightly higher areas throughout the wetland, but primarily nearing the forest ecotone (Figure 4). Kaikawaka – *Libocedrus bidwilli* individuals are common amid tawhairauriki – *Fuscospora cliffortioides* forest at the wetland ecotone (Figure 4), with good recruitment of the former evident.

As the species list (below) indicates there is little here that is very rare or unique, although it's always a delight to see healthy populations of kaikawaka alongside purple flowering bladderworts – *Utricularia dichotoma* subsp. *novae-zelandiae*. The most exciting aspect of this wetland is the near pristine condition of the entire system (it scored 22.5/25 on the wetland condition index). While the species list indicates there are four non-native plant species present, the sum area of occupation of these was a 0.5 m<sup>2</sup> islet within a pool – presumably the result of waterfowl dispersal. Minimal deer-browse was observed on palatable species such as haumakāroa – *Raukawa simplex*, and a relatively rich avifauna assemblage was observed including kākāriki.

After several years of working in and around wetlands in less remote parts of the country it was blissful to spend some time in a near-pristine site.

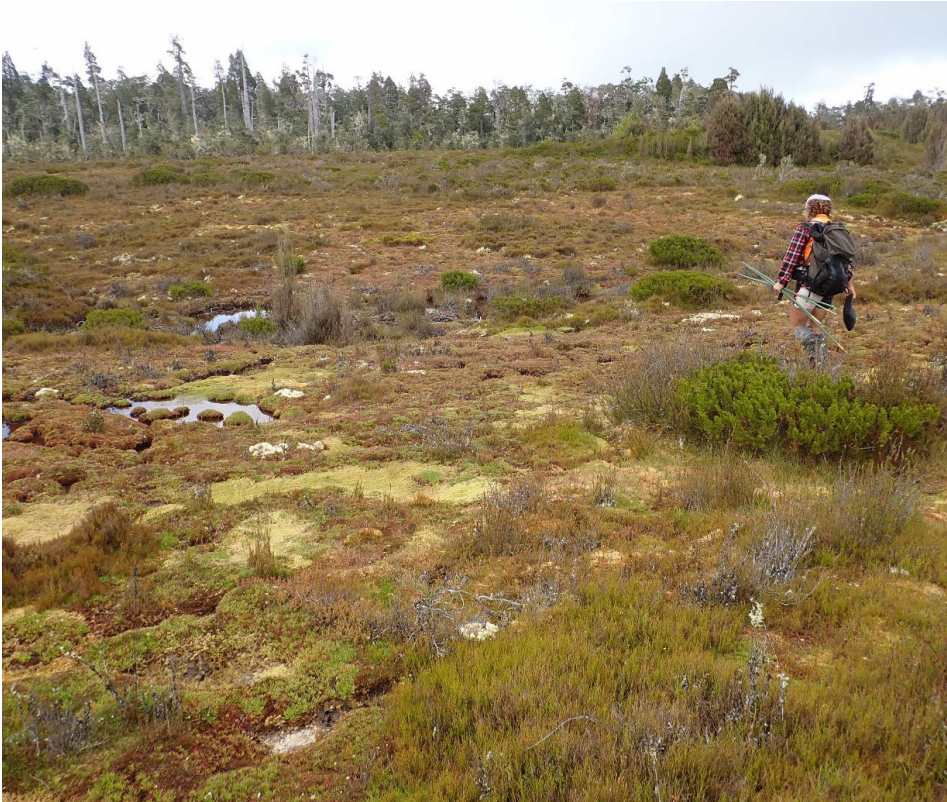


Figure 3. A mosaic of cushions comb sedge – *Oreobolus pectinatus*, *O. strictus*, and *Sphagnum* spp. between patches of wire rush – *Empodisma minus*, and slightly raised hummocks of *Dracophyllum palustre* and bog pine – *Halocarpus bidwillii*.



Figure 4. Tall kaikawaka – *Libocedrus bidwillii* individuals are common amid tawhairauriki – *Fuscospora cliffortioides* forest at the wetland ecotone. Note James Arbuckle, Olivia Burge and Gretchen Brownstein working hard.

### Acknowledgements

Thanks to Kerry Ford for assistance with identification of *Cyperaceae* species and to Gary Houliston for reviewing the content, both of Manaaki Whenua – Landcare Research. Thanks also to Janet Newell, John Wotherspoon, Melissa Griffin, Sandra Wotherspoon and Sjaan Field of the Rotoiti/Nelson Lakes District Department of Conservation Office for their support and advice. This research was carried out on Public Conservation Land under the Manaaki Whenua – Landcare Research global concession (number CA-31615-OTH).

## Species list

Species name	Te Reo Māori	common name
* <i>Agrostis stolonifera</i>		creeping bent
<i>Androstoma empetrifolium</i>		
* <i>Anthoxanthum odoratum</i>		sweet vernal
<i>Carex echinata</i>		star sedge
<i>Carex gaudichaudiana</i>		Gaudichaud's sedge
<i>Carex hamlinii</i>		Hamlin's hook grass
<i>Carex sinclairii</i>		Sinclair's sedge
<i>Celmisia alpina</i>		mountain daisy
<i>Centrolepis ciliata</i>		centrolepis
<i>Coprosma cheesemanii</i>		
<i>Coprosma pseudocuneata</i>		
<i>Dracophyllum palustre</i>		swamp neinei
<i>Drosera arcturi</i>	wahu	sundew
<i>Drosera spatulata</i>	wahu	sundew
<i>Empodisma minus</i>		wire rush
<i>Fuscospora cliffortioides</i>	tawhairauriki	mountain beech
<i>Gaimardia setacea</i>		gaimardia
<i>Gaultheria depressa</i> var. <i>novae-zealandiae</i>		snowberry
<i>Gaultheria macrostigma</i>		prostrate snowberry
<i>Gonocarpus aggregatus</i>		
<i>Halocarpus bidwillii</i>		bog pine
* <i>Holcus lanatus</i>		Yorkshire fog
<i>Hymenophyllum villosum</i>		hairy filmy fern;
* <i>Juncus articulatus</i>		jointed rush
<i>Lepidothamnus laxifolius</i>		pigmy pine
<i>Leptospermum scoparium</i>	mānuka	tea tree
<i>Libocedrus bidwillii</i>	kaikawaka; pahautea	New Zealand cedar
<i>Lophozonia menziesii</i>	tawhai; tirowhārangi	silver beech
<i>Myrsine divaricata</i>		weeping mapou; weeping matipo
<i>Notogrammitis angustifolia</i> subsp. <i>nothofageti</i>		strapfern
<i>Oreobolus pectinatus</i>		combsedge; cushion sedge
<i>Oreobolus strictus</i>		
<i>Pentachondra pumila</i>		
<i>Phyllocladus alpinus</i>	toatoa	mountain celery pine; mountain toatoa
<i>Podocarpus totara</i> var. <i>totara</i>	tōtara	totara
<i>Raukawa simplex</i>	haumakāroa	
<i>Thelymitra species</i>	māikaika	sun orchid
<i>Utricularia dichotoma</i> subsp. <i>novae-zelandiae</i>		bladderwort

## References

- Clarkson, B.R.; Sorrell, B.K.; Reeves, P.N.; Champion, P.D.; Partridge, T.R.; Clarkson, B.D. 2003. Handbook for monitoring wetland condition (Revised October 2004). Coordinated Monitoring of New Zealand Wetlands. A Ministry for the Environment Sustainable Management Fund Project (5105).
- van Dam-Bates, P.; Gansell, O.; Robertson, B. 2018. Using balanced acceptance sampling as a master sample for environmental surveys. *Methods in ecology and evolution* 9: 1718–1726.
- Wiser, S.K.; Thomson, F.J.; De Cáceres, M. 2016. Expanding an existing classification of New Zealand vegetation to include non-forested vegetation. *New Zealand Journal of Ecology* 40: 160–178.

## Notes from the field – *Myosotis brevis* a new colony for the Wellington district.

Matt Ward, NZPCN Secretary ( [mattward@gmail.com](mailto:mattward@gmail.com) )

A wee while ago whilst undertaking a survey for the Greater Wellington Regional Council (GWRC), I was lucky enough to find a new colony of one of our smaller endangered plants. The species I stumbled upon was *Myosotis brevis* (Figure 1). For those who have met this species you will be aware of how slight it is.



Figure 1. *Myosotis brevis* colony of plants in flower in the Palliser Bay area, 23 September 2020. Photo: Matt Ward.

*Myosotis brevis* is the smallest New Zealand forget-me-not. It has a ‘Threatened – Nationally Endangered’ (de Lange et. al., 2018) status based on the fact it is sparse in distribution and experiences extreme fluctuations in its population sizes. In appearance the plant begins as a dense rosette which can extend in any direction (Figure 2). Its leaves are either green, dark-green, bronze-green or brown-green, and generally covered in stiff hairs for protection from the extremes. It is shade intolerant and therefore out competed by almost any other plant species. In the Wellington region it is found in coastal pebble beach/dune environs where there are pockets of bare ground lacking vegetation of any other type.



Figure 2. *Myosotis brevis* mature rosette extending in multiple directions with fruit and flowers present, Palliser Bay area, 9 October 2020. Photo: Matt Ward.

In 2010 de Lange & Barkla (de Lange *et. al.*, 2010) formally renamed this species of forget-me-not using the specific epithet 'brevis' (meaning short in Latin); an excellent description of a species recognised for its small stature when compared to its close relative *M. pygmaea*, with which it has been known to co-exist. Previously known as *M. pygmaea* var. *minutiflora*, *Myosotis brevis* is part of the *M. pygmaea* complex. It is an annual species which separates it from its closest relative, the complex namesake and also *M. glauca*. From the other members of the complex, *M. antarctica* ssp. *antarctica* (formally *M. drucei*) and *M. antarctica* ssp. *traillii*, it can easily be distinguished by its smaller habit (leaves 8–25 × 4–10mm), smaller flowers (corolla 0.5–1.5 mm, see Figure 3), and the usual presence of flowers and/or fruit due to its spring annual occurrence (Prebble *et. al.*, 2022).



Figure 3. *Myosotis brevis* flowers of both colours with my finger for scale, 9 October 2020. Photo: Matt Ward.

From the details I have provided above the message is clear, this species is very small, very much short lived, and generally well camouflaged within its habitat. So, finding this colony new to the Wellington Region was merely a stroke of luck. Only spotted accidentally while I was doing up my shoelace and finding some shelter to place my notes so that they would not blow away in the boisterous breeze, an unusual happening in Wellington. I must admit at the time it seemed pretty cool, and even a bit exciting, as it was only the second time I had met this species, the other time being eight years prior. Correspondence with Heidi Meudt and Jessie Prebble confirmed my suspicions. This was followed up by a later site visit with Pat Enright and Tony Silbery who confirmed the find, which really bought a smile to both their faces. Approximately 15 plants were noted within an area of about 4 × 2 metres.

### Acknowledgement

Thank you very much to the landowner for access permission. An excellent find only made possible by the foresight of Roger Uys (GWRC) who was funding the region-wide dune survey I was undertaking.

### References

- de Lange, P.J. 2022. *Myosotis brevis* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/myosotis-brevis/> (Accessed 18 August 2022).
- de Lange, P.J.; Rolfe, J.R.; Barkla, J.W.; Courtney, S.P.; Champion, P.D.; Perrie, L.R.; Beadel, S.M.; Ford, K.A.; Breitwieser, I.; Schonberger, I.; Hindmarsh-Walls, R.; Heenan, P.B.; Ladley, K. 2018. Conservation status of New Zealand indigenous vascular plants, 2017. *New Zealand Threat Classification Series 22*. Department of Conservation, Wellington. 82 p.
- de Lange, P.J.; Heenan, P.B.; Norton, D.A.; Rolfe, J.R.; Sawyer, J.W.D. 2010. *Threatened Plants of New Zealand*. Canterbury University Press, Christchurch. 471 p.
- Prebble, J.M.; Vaughan Symonds, V.; Tate, J.A.; Meudt, H.M. 2022. Taxonomic revision of the southern hemisphere pygmy forget-me-not group (*Myosotis*; Boraginaceae) based on morphological, population genetic and climate-edaphic niche modelling data. *Australian Systematic Botany* 35(1), 63–94.
- Townsend, A.J.; de Lange, P.J.; Duffy, C.A.; Miskelly, C.M.; Molloy, J.; and Norton, D.A., 2008. *New Zealand threat classification system manual*. Department of Conservation, Wellington, 36 p.



## NZPCN Plant Conservation Awards 2022

Sarah Beadel ([sarah.beadel@wildlands.co.nz](mailto:sarah.beadel@wildlands.co.nz))

We are calling for nominations for the prestigious New Zealand Plant Conservation Network Awards 2022. The purpose of these awards is to acknowledge outstanding contributions to native plant conservation in Aotearoa/New Zealand.

Award categories are:

- Individual
- School
- Council
- Community
- Plant Nursery
- Young Plant Conservationist of the Year (under 18 years at 30 June 2022)

The nomination form is available from the Network website here: <https://www.nzpcn.org.nz/publications/documents/2022-nzpcn-award-nomination-form/>

We look forward to receiving your nominations; and encourage you to make multiple nominations under different categories.

Anyone is eligible to make nominations, not just Network members.

**Nominations close** on Friday 14 October 2022. Please email your nominations to [sarah.beadel@wildlands.co.nz](mailto:sarah.beadel@wildlands.co.nz).

These prestigious awards will be presented at an event as part of the 2022 NZPCN conference in Queenstown on Tuesday 6 December 2022.

Winners will be informed in advance and each will get a pair of complimentary tickets to the awards event.

### Thank you to our conference sponsors!

The NZPCN would like to thank our sponsors for showing their commitment to plant conservation networking by supporting our conference. For more information regarding our conference sponsors please follow this link <https://www.nzpcn.org.nz/nzpcn/events/conference-2022/2022-conference-sponsors/> .

If you or your organisation is in a position to show your support, please contact us now for a sponsorship package at [fergusa@landcareresearch.co.nz](mailto:fergusa@landcareresearch.co.nz).



Wildlands



Manaaki Whenua  
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## **NZPCN 2022 conference student scholarship profile**

Alex Fergus and Caitlin Daley ([fergusa@landcareresearch.co.nz](mailto:fergusa@landcareresearch.co.nz) and [caitlinoldale@gmail.com](mailto:caitlinoldale@gmail.com))

In anticipation of our 2022 conference in December in Queenstown we are including brief profiles of our four NZPCN conference student scholarship recipients in Trilepidea. To support student participation at the 2022 conference we have sponsored the registration costs of the first four students who registered and submitted a poster or spoken presentation abstract. This month we've asked Caitlin Daley a few questions about her botanical background and the research she'll be presenting at the conference.

*How did you first become involved in botany/plant ecology/native plant conservation/ecological restoration?*

Like many lucky kiwi kids, I grew up walking in the bush and volunteering at conservation planting days with my family. My mum worked at Landcare Research in Auckland when I was young and I loved it when she took me to BioBlitz events or into the bush for hours to look for fungi. In 2016 I moved to Dunedin, where over the last seven years I have worked (often while studying) in various native plant nurseries and conservation roles across the South Island. This is where my passion for botany, native plant conservation, and ecological restoration has really flourished.

*Briefly describe the background to the research you are presenting at the NZPCN 2022 conference*

Caitlin's NZPCN conference presentation is titled *Challenges to using one size fits all approaches in Wetland Management*.

Last year I completed a PGDipSci, which focused on the role of grazing in wetland management. Through this, I further realised that the restoration and management of wetlands on farms is complex, it can be achieved through a variety of methods and is often farmer motivated for a wide variety of reasons. My Master's project is therefore focused on finding out what factors determine the 'success' of a rural wetland restoration project. I really do believe that wetlands can be a farm asset and I am researching how this can be achieved to benefit both the farm and the environment.

Manaaki whenua. Manaaki tangata. Haere whakamua.

*Beyond study, where, in a mythical world of limitless science funding, are you hoping your botany/plant ecology/native plant conservation/ecological restoration career path will lead?*

Beyond study, I hope that my career will allow me to connect with and learn from as many people as possible. I am currently really enjoying working and studying in the rural sector and it is always such a challenge but also a pleasure being able to visit the most amazing wetland remnants and help landowners navigate how they can best look after these wetlands. For now, I hope to be able to continue doing this!

## **NZPCN Strategy Review**

John Barkla, NZPCN President ([mjbarkla@xtra.co.nz](mailto:mjbarkla@xtra.co.nz))

The current [NZPCN Strategy](#) has been guiding the Network over the last five years. It's time for the Council to check that the strategy is still fit-for-purpose, and we will soon begin a review to that end. We'd like to hear your views on the direction of NZPCN and on our goals and actions. Please send any feedback to [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz) by 31 August 2022.

## Request for seeds of montane plant species

Paul Bell-Butler ([paul.bellbutler@vuw.ac.nz](mailto:paul.bellbutler@vuw.ac.nz))

I'm an MSc student at Victoria University in Wellington. Next year is my thesis year and my project will involve monitoring the germination of a variety of vascular plant species in the presence of non-vascular ground covers, with a view to better understanding these interactions in the montane-subalpine grasslands.

I will hopefully be able to make seed collections under a permit over the summer, but I would like to do some trials now and do not have access to any seeds. I'm not looking for anything rare or special, just common montane species.

Some suggestions are: *Chionochloa* spp., *Coprosma propinqua* var. *propinqua*, *C. atropurpurea*, *C. perpusilla*, *C. petriei*, *Acaena* spp., *Luzula* spp., *Ranunculus* spp. (*R. foliosus*, *R. royi*, *R. maculatus*, *R. cheesmanii*), *Myosotis* spp. (*Myosotis pygmaea*), *Epilobium* spp. and *Celmisia* spp.

You can contact me at the email address above and any assistance you are able to provide will be very much appreciated.

## UPCOMING EVENTS

If you have events or news that you would like publicised via this newsletter please email the Network ([info@nzpcn.org.nz](mailto:info@nzpcn.org.nz)).

If you are intending to participate in one of the advertised botanical society meetings or field trips please check with the appropriate society beforehand to confirm that the published details stand.

### Wilding Pine Network

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**Wilding Pine Conference:** Collective action for long term gain. Blenheim, 13–15 September 2022. Wilding conifers are New Zealand's biggest weed problem. Many around the country are working to control, contain and eradicate them, to protect some of Aotearoa's most iconic and rare landscapes, and productive land, from being smothered by a blanket of self-seeded wildings. At this conference, hosted by the Wilding Pine Network (formerly the NZ Wilding Conifer Group) will be speakers from community groups doing the mahi around the country, the forestry industry, scientists, and the National Wilding Conifer Control Programme (led by Biosecurity New Zealand, part of the Ministry for Primary Industries). The Minister for Biosecurity, Hon Damien O'Connor, and Minister of Forestry, Hon Stuart Nash, and the Deputy Director General Biosecurity New Zealand, Stu Anderson, will also be speaking.

**Registration:** now open at [Wilding Pines Conference - Wilding Pine Network NZ](#). At the bottom of that page are links to the most recent programme and registrations. There will be a very warm welcome to all who attend.

### Auckland Botanical Society

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**Meeting:** Wednesday 7 September at 7.30pm. Details to be confirmed.

**Venue:** Unitec, School of Natural Sciences, 139 Carrington Road, Mt. Albert (Gate 4, Building 115, Room 1028).

**Field Trip:** Saturday 17 September to Rabbit Island, Kawau Bay.

**Contact:** Maureen Young, email [youngmaureen@xtra.co.nz](mailto:youngmaureen@xtra.co.nz), ph. 09 425 7162 asap if you wish to participate.

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## Waikato Botanical Society

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**Field Trip:** Sunday 4 September to Homunga Bay Waihi (combined with Rotorua Botanical Society). **Meet:** Barry Road junction with SH 25 on the northern outskirts of Waihi at 10.00am. **Grade:** Moderate.

**Leaders:** Graeme Jane and Gael Donaghy, email [gtjane@kinect.co.nz](mailto:gtjane@kinect.co.nz), ph. 07 570 3123.

**Meeting:** Monday 19 September at 6.00pm. **Speaker:** Jim Dahm. **Topic:** The aims of Coastcare work and the ecological and geomorphic principles that guide the work.

**Venue:** The Link (corner Te Aroha Street and River Road, Hamilton East).

**Field Trip:** Saturday 24 September to Handcock Road, Te Kopia, Paeroa Range (combined with Rotorua Botanical Society). **Meet:** Rotorua carpark at 8.15am or at the gate at the end of Handcock Road off SH 5 at 9.00am. **Grade:** Moderate-Hard.

**Leader:** Jacqui Bond, email [supajac@yahoo.com](mailto:supajac@yahoo.com), ph. 021 125 9273.

## Rotorua Botanical Society

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**Field Trip:** Sunday 4 September to Homunga Bay Waihi (combined with Waikato Botanical Society). **Meet:** Barry Road junction with SH 25 on the northern outskirts of Waihi at 10.00am. **Grade:** Moderate.

**Leaders:** Graeme Jane and Gael Donaghy, email [gtjane@kinect.co.nz](mailto:gtjane@kinect.co.nz), ph. 07 570 3123.

**Field Trip:** Saturday 24 September to Handcock Road, Te Kopia, Paeroa Range (combined with Waikato Botanical Society). **Meet:** Rotorua carpark at 8.15am or at the gate at the end of Handcock Road off SH 5 at 9.00am. **Grade:** Moderate-Hard.

**Leader:** Jacqui Bond, email [supajac@yahoo.com](mailto:supajac@yahoo.com), ph. 021 125 9273.

## Wellington Botanical Society

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**Field Trip:** Saturday 3 September to Kiripiti Scientific Reserve, Old Hautere Road, Otaki. **Meet:** Waikanae Railway Station north-end carpark at 9.45am.

**Leader:** Mick Parsons, email [parsonroad@gmail.com](mailto:parsonroad@gmail.com), ph. 027 249 9663.

## Nelson Botanical Society

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**Field Trip/Meeting:** Please refer to the website: <https://www.nelsonbotanicalsociety.org/trips-meetings>, for details.

## Canterbury Botanical Society

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**Meeting:** Monday 5 September at 7.30pm. **Speaker:** Dr Paul Broady. **Topic:** Methane.

**Venue:** St Albans Community Centre, 1049 Colombo Street, Christchurch.

**Field Trip:** Saturday 10 September to Lake Coleridge arboretum (McHughs, Adams, Coleridge). **Meet:** To be advised.

**Leader:** Tom Ferguson.

## Botanical Society of Otago

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**Field Trip:** Saturday 10 September to Pipeline Track. **Meet:** Botany Department carpark (464 Great King Street North) at 9.00am.

**Contact:** John Steel, email [john.steel@otago.ac.nz](mailto:john.steel@otago.ac.nz), ph. 021 213 3170.

**Meeting:** Wednesday 14 September at 6.00pm. **Speaker:** Heidi Meudt, Botany Researcher at Museum of New Zealand Te Papa Tongarewa. **Topic:** Geoff Baylis Lecture: Taxonomic revision of native New Zealand forget-me-nots (Myosotis, Boraginaceae): An update.

**Venue:** Main seminar room, Manaaki Whenua Landcare Research, 764 Cumberland Street, Dunedin.