



TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 223

October 2022

Deadline for next issue:
Friday 11 November 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

Postal address:

PO Box 147
Mangonui 0442
NEW ZEALAND

2022 NZPCN conference updates

Alex Fergus, Jesse Bythell and Joanna Smith

Kia ora koutou, and thanks to everyone who has registered for the conference or contributed to the organisation of it to date. Many thanks to those of you who have submitted poster or spoken presentation abstracts. As this issue of Trilepidea goes to print, we are finalising the programme. Everyone who has submitted an abstract will receive an update before the end of October and we also intend to have the programme online via the conference webpage by that time.

Details continue to fall into place with the conference only six weeks away. After a delay of nine months, we're very excited to have the NZPCN conference faithful together again in Queenstown. Having reviewed the abstracts we can confirm it's going to be a really interesting, topical and enjoyable few days.

The registration desk will open at 4.30 pm on Sunday 4 December, at the QT Queenstown and Rydges Lakeland Resort, 38–54 Lake Esplanade, Queenstown. We encourage folks to join us on Sunday afternoon, as in addition to complimentary refreshments, a showcase of local botanical art will be on display, and the conference auction will take place at 6 pm.

For those who have registered for workshops or field trips, we will send an update to participants in late November. This will include details of where, what time, what to bring, and how to get there.

If you have any other queries relating to conference proceedings please don't hesitate to contact Alex at fergusa@landcareresearch.co.nz.

A reminder – conference code of conduct

He taonga rongonui te aroha ki te tāngata—Goodwill towards others is a precious treasure.

In the interests of all participants and supporters of this conference, we are dedicated to creating a positive, supportive and rewarding experience for everyone, regardless of race, ethnicity, nationality, culture, religious beliefs, gender, gender identity and expression, sexual orientation, age, status, disability, physical appearance, political affiliation, or technology choices. We will not tolerate harassment of conference participants in any form.

We believe everyone has an obligation to contribute. Here we have outlined appropriate and acceptable behaviours expected at the conference. We aim to influence helpful and constructive outcomes from the conference, and for everyone involved to feel supported to make positive choices, manage risk and have a great experience.

Everyone has a responsibility to speak up when there is, or could be, a situation that may breach or lead to a breach of this Code, or the law.

We ask everyone involved with the 2022 NZPCN Conference to:

- Look out for one another and contribute towards a safe environment where people are treated with dignity and respect, feel comfortable and encouraged, feel their opinions are valued, and can speak without fear.

- Be conscientious about how your actions and comments might be perceived or misunderstood by others.
- Be mindful of how you use social media, remembering the internet is a public place and we can't control how long something will remain on the internet, or other people's access to the content.
- Aspire to perform at your best while attending the conference. Please refrain from abusing alcohol, or any other drugs, that could prevent you from being at your best, as that could create a dangerous situation.
- Have zero tolerance for unwanted verbal or physical conduct (sexual or otherwise) or degrading and disparaging statements related to race, ethnicity, nationality, culture, religious beliefs, gender, gender identity and expression, sexual orientation, age, status, disability, physical appearance, political affiliation, technology choices, and other categories protected by the law.
- Support the use of Treaty of Waitangi principles — 'partnership, protection and participation' — and te reo Māori throughout the conference.
- Embrace and value diversity so all people involved with this conference feel supported. We believe diversity of people and ideas inspires innovation, can provide alternative insights and perspectives, and help lead to our collective successes.
- Be mindful of behaviours or comments that intimidate, create discomfort, interfere with a person's participation, or reinforce social structures of domination or that might be construed as an abuse of power.

Thanks once again to all our sponsors

The NZPCN would like to once again thank our sponsors for showing their commitment to plant conservation networking by supporting our conference. This includes as principal sponsors: Wildland Consultants; Manaaki Whenua – Landcare Research; e3Scientific; RealNZ and Queenstown Lakes District Council, as session sponsors: Ahikā, as workshop sponsors: NZSki Ltd and Whakatipu Reforestation Trust. 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 are in a position to show your support, please contact us now for a sponsorship package at fergusa@landcareresearch.co.nz.



NZPCN AGM Reminder

You may or may not have seen the first announcement of the NZPCN Annual General Meeting being held on Thursday 17 November 2022 at 6.00pm via Zoom. Following the official side of things, we will have 20–30 minute presentation from a yet to be confirmed guest speaker (keep an eye on the NZPCN website homepage 'News' for an update).

To register in advance for this meeting please contact the NZPCN Secretary Matt Ward at mattward@gmail.com. Once registered, you will receive a confirmation email containing information about how to join the meeting.

Impact of recent fires at Kaimaumau Wetland (part 2)

Bill Campbell (billcampbell@extra.co.nz)

In the February issue of *Trilepidea* an article of mine was published regarding the impact of fires at Kaimaumau and Lake Ohia wetlands. Since then I have visited the Kaimaumau wetland on five occasions and this article summarises the observations made on those visits.

Overall, regeneration of native plant species is looking very promising. The only species of concern is *Lepidosperma neozelandicum* (fountain sedge), which is showing no signs of recovery (Figure 1.) some 10 months after the most recent fire ravaged large tracts of the wetland.

A number of native plants, including orchids, have been observed flowering in the burnt over areas and threatened species, some of which haven't been observed in the wetland complex previously or for a number of years, have also been observed. This is probably due in no small part to the loss of the dense low level vegetation, now providing easier access and much better visibility to see low growing species.

Threatened plants observed since the fire include *Caladenia minor* (Data Deficient), *Microtis arenaria* (Data Deficient), *Phylloglossum drummondii* (Threatened – Nationally Endangered), *Kunzea linearis* (Threatened – Nationally Vulnerable), *Pterostylis puberula* (Threatened – Nationally Vulnerable), *Todea barbara* (Nationally Vulnerable), *Thelymitra ixioides* (At Risk – Naturally Uncommon), *Thelymitra* “rough leaf” (At Risk – Naturally Uncommon), *Cryptostylis subulata* (Coloniser), *Drosera gunniana* (Coloniser) and *Thelymitra malvina* (Coloniser)

It would appear that *Pterostylis puberula* (Figure 2.) had not been recorded previously at Kaimaumau but one colony of 50+ plants was located during my first post-fire visit in July. A number of the plants subsequently flowered and are currently setting seed. Whether this species was actively growing prior to the fire or its appearance was triggered by the fire is unknown, as the site where it is growing had not been looked at by me previously.



Figure 1 (far left). Burnt stumps of *Lepidosperma neozelandicum* showing no signs of regeneration, 22 September 2022.

Figure 2 (left). *Pterostylis puberula* flower, 22 September 2022. All photos Bill Campbell.

Several colonies of *Phylloglossum drummondii* (Figure 3.) have been observed, all on sandy hummocks. This species is recorded as being present in historical literature and has probably always been present on more open sites. I had not observed it at Kaimaumau previously, although I had not had a close look at any of the sites where it is now known to be present.

Caladenia minor (Figure 4.) and *Microtis arenaria* are both widespread but generally in small numbers, although one colony of *C. minor* consisted of 45+ plants. One plant of *Todea barbara* (Figure 5.) has become visible in a gumhole adjacent to the main access track and it is likely that it was present pre-fire but obscured by dense vegetation.



Figure 3. *Phylloglossum drummondii* with cones, 15 August 2022.



Figure 4 (far left). *Caladenia minor* flower, 11 October 2022.

Figure 5 (left). *Todea barbara* growing in edge of gumhole, 21 July 2022.

Only one flowering plant of *Thelymitra ixioides* (Figure 6.) has been observed, but *Thelymitra* “rough leaf” (Figure 7.) and *Thelymitra malvina* (Figure 8.) are both reasonably common on higher ground. *Kunzea linearis* is common and widespread throughout the wetland areas visited. *Cryptostylis subulata* (Figure 9.) and *Drosera gunniana* (Figure 10.) are both reasonably common, although they have a localised distribution.



Figure 6 (left). *Thelymitra ixioides* flower, 11 October 2022.

Figure 7 (centre). Profile view of *Thelymitra* “rough leaf” flower, showing the distinctive column, 11 October 2022.

Figure 8 (right). Flowering *Thelymitra malvina*, 11 October 2022.



Figure 9 (far left). Flowering *Cryptostylis subulata*, 11 October 2022.

Figure 10 (left). *Drosera gunniana*, showing the distinctive hairy calyx, 22 September 2022.

Two other threatened species, *Calochilus herbaceus* (Threatened – Nationally Critical) and *Thelymitra* “Ahipara” (Threatened – Nationally Critical), known to be present in small numbers and observed on occasion pre-fire, have not been observed with certainty since the fire. They are very cryptic, however, and it is expected they will be observed again at some stage.

In addition, a small colony of *Pterostylis tasmanica* (Threatened – Nationally Vulnerable), which has been recorded previously from Kaimaumu wetland and which I observed for the first time last year, has not been relocated since the fire. Again, it is likely to reappear in the future, given its ability to turn up in unexpected places.

Of the exotic species regenerating since the fire, *Acacia longifolia* (Sydney golden wattle) probably poses the greatest threat to native species. Presently, it is largely confined to several areas of higher ground, but thousands of new plants have sprung up since the fire. Fortunately, it is unlikely to colonise the more pristine areas of the wetland due to their waterlogged nature.

Other exotics re-establishing themselves since the fire are *Ulex europaeus* (gorse), *Hakea sericea* (prickly Hakea) *Oxylobium lanceolatum* and *Callistemon rigidus* (stiff bottlebrush). Although widespread in the areas visited, none of these species are likely to present a serious threat to the native plants present in the wetland.

I am planning to make two further visits to the wetland complex in November and at least one visit in December. A further visit may be made early in the new year to specifically look for *Spiranthes australis*, which I have observed only one plant of in the past in the wetland. A further article, outlining further finds and observations will be published following the last of these visits.

Acknowledgements

Thanks to Andrew Townsend and Kaio Hooper, Department of Conservation, for their support and encouragement and to representatives of Ngai Takoto and Kaimaumu Marae for their interest and permission to collect specimens for scientific research if required.

References

- Hicks, D.L.; Campbell, D.J.; Atkinson I.A.E. 2001. Options for managing the Kaimaumu Wetland, Northland, New Zealand, Science for Conservation 155. Department of Conservation, Wellington. 75p.
- 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.

Seeking donations for the 2022 conference charity auction

Alex Fergusa (fergusa@landcareresearch.co.nz)

Many thanks to all those individuals and businesses who have contributed items for our 2022 conference charity auction. At every conference we run a charity auction and this is typically a relaxed and fun event, where we encourage outrageous bidding wars over such treasure as orchid portraits. The delight we take in the fervour of our conference participants eagerness for botanical swag is twofold—firstly, it's rather funny and, secondly, all proceeds are split between our John Sawyer Plant Conservation Fund and our David Given Threatened Plant Research Scholarship Fund.

The auction at this year's conference will take place on Sunday afternoon/evening. We will encourage folks to check out the auction tables and enjoy some light refreshments after they've registered (registration opens at 4.30 pm). Most of the items up for grabs at this year's conference will be sold via silent auction, but the most fantastic prizes will be auctioned live by one of our enthusiastic auctioneers (at approximately 6.00 pm). For those still wishing to donate something to auction, please contact Taylor Davies-Colley (taylordaviescolley@gmail.com) or Joanna Smith (educate@wrtqt.org.nz).

Seeking information about karaka (*Corynocarpus laevigatus*) in your area

Kate McAlpine (kmc Alpine@doc.govt.nz)

Kia ora koutou. My name is Kate McAlpine and I'm a weed ecologist at the Department of Conservation. One of my current projects is leading a collaborative paper that brings together all the different perspectives on karaka. This came out of a wānanga that was held at Zealandia recently: <https://www.visitzealandia.com/Whats-On/ArtMID/1150/ArticleID/429/Weed-poison-or-native-taonga-the-great-karaka-debate>

One of the things we'd like to include in the paper is a comprehensive summary of who is (or isn't) managing karaka around NZ. Things we'd like to know are:

1. Is karaka present in your area? If yes, then:
2. Please define your area, and describe how widespread karaka is, and what sort of land it occurs on (e.g. DOC land, council land, restoration site, private farmland etc.)
3. Are you aware if anyone manages karaka at any of those sites (including controlling it or planting it)?
4. Do you know what their reasons are for managing/not managing karaka?
5. Anything else you'd like to add?

If you'd like to contribute, please email your responses to me at kmc Alpine@doc.govt.nz. Ngā mihi nui.

NZPCN 2022 conference student scholarship profile

Alex Fergus (fergusa@landcareresearch.co.nz) and Marley Ford (marsbars14@hotmail.co.nz)

In anticipation of our 2022 conference in December in Queenstown we have been 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 Marley Ford a few questions about his botanical background and the research he'll be presenting at the conference.

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

I grew up in the wild western Far North where farmland is marginal and the landscape is still wild. On our family farm bordering the Hokianga, I spent most of my time cultivating a love for these wild spaces by horse trekking, tramping and hunting. I had the privilege of growing up in a place where kiwi (*Apteryx mantelli*) are heard every night, local endemics hold on in the nearby mountains (Waima) and the god of the forest lives just up the road (Tāne Mahuta). The mysterious wild nature of northern New Zealand has instilled a wonder in me that has led to a passionate pursuit of botany, ecology and conservation.

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

Marley's NZPCN conference presentation is titled "What are the mycorrhizal communities of *Lophomyrtus bullata*, an endemic threatened plant of New Zealand."

With the threat of myrtle rust (*Austropuccinia psidii*) looming and the potential it has to affect native Myrtaceae, I wanted to unravel the relationship between mycorrhiza and forest health. My study focused on creating a baseline on the mycorrhizal diversity of the native myrtle ramarama (*Lophomyrtus bullata*) and create an understanding of how different factors including vegetation associations and soils affect mycorrhizal diversity.

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?

I would pursue mycology in the purist sense, updating New Zealand's understanding of the lichen flora and other cryptic organisms. Within these often-neglected fields I would dive into lichen taxonomy, studies into lichen ecology across different ecosystems and promote their role and importance in the restoration context.

Seeking examples for our Queenstown Lakes District restoration pathways workshop (2022 NZPCN conference)

Alex Fergus, Adam Forbes, Ben Teele, Jesse Bythell and Rebecca Teele

The NZPCN is excited about the opportunity for our 2022 conference to generate an additional output beyond the general engagement and knowledge sharing resulting from a conference format. We are inviting all conference participants (and *Trilepidea* readers) to contribute stories about their restoration experiences in the Queenstown Lakes District region. We will collate and review these stories with the goal of producing a synthesis document which focuses on restoration pathways.

We have been collating examples from published and grey literature which document restoration efforts in the Queenstown Lakes District area, but now we want to cast the net wider. If you are currently, or have formerly been, involved in a restoration project in the Queenstown Lakes District region we ask you to consider submitting a restoration story. Stories can be anonymous, and while it would help to have specific locations, these details can be omitted if you provide us with specific details of local climate/terrain. If you have multiple examples, we encourage you to submit a story for each.

We want to make this process simple, and fast, hence there is a template at the end of this article. Please complete as much of the template as you can, and if you have queries, or want Microsoft Word or any other versions of the template, don't hesitate to get in touch with Alex.

It's important to note that we are interested in all facets of restoration, the full continuum from unassisted (natural) recovery to intensively assisted recovery (we're focusing on the intervention continuum of Chazdon et al. 2021 as opposed to the active/passive restoration dichotomy). Putting that in a Queenstown Lakes District perspective, perhaps you've observed the first broadleaf forest species recruit into a patch of local mānuka scrub without any help, or near the other end of the continuum, perhaps you've blocked drains, rewetted paddocks, removed willows and planted intensively to convert pasture back to wetland. Our scope is wide. Projects will also be very different in terms of time, some may only be a few years old, some might stretch to decades. And we want to hear about both successes and failures, both are equally important.

All stories will be reviewed along with existing literature, and we will endeavor to draw out commonalities. In a workshop-style format within one of the 2022 conference spoken presentation slots we will work as a group to synthesize these commonalities, identifying areas of oversimplification or adding examples that have been missed. At this stage it's tricky to pre-empt the nature of the output of this work. One option would be to generate simple state-and-transition diagrams for different ecosystem or vegetation types, identifying transitions and the factors that did (or did not) impact on them. The broader goal would be to identify successful pathways that could guide future restoration work in the region.

No matter what the output, all conference participants, and all story contributors will be welcomed as authors on the final synthesis document which will be published in *Trilepidea* and as a stand-alone document that will be available to download for free from the NZPCN website.

Please contact Alex (fergusa@landcareresearch.co.nz) if you have any queries.

References

Chazdon, R.; Falk, D.; Banin, L.; Wagner, M.; Wilson, S.; Grabowski, R. & Suding, K. 2021. The intervention continuum in restoration ecology: rethinking the active/passive dichotomy. *Restoration Ecology*. 10.1111/rec.13535.

NZPCN conference 2022 – Queenstown Lakes District restoration pathways workshop

Restoration stories template

Story name/site name	Record anonymous if preferred.
Contributor name	Record anonymous if preferred.
Story location	Record anonymous if preferred—but please include where possible details of altitude, aspect, climate (especially rainfall) and terrain. If not anonymous, addresses or coordinates of the central point of restoration project site would be very useful, we can assist with collating or identifying location details.
Motivation or goal for your restoration project	
Start point for your restoration project	The ecosystem or vegetation type.
Current/end point for your restoration project	The ecosystem or vegetation type. Your take on how successful the project has been. What has worked. What has not. Include the length of time of time the project has been running to date.
Restoration methods	Restoration methods (e.g. weed control, fencing, planting, using plant guards etc.) and the species (either those used in planting, or those that responded or didn't respond to the methods you used).
Modifiers to restoration outcomes	Additional details relating to pests, weeds, climate, terrain etc. if not captured above.
Social aspects	The roles (both positive and negative) of social networks, advisors, points of social tension, specific social barriers or enablers.

NZPCN fact sheet images update

Jesse Bythell, NZPCN webmaster (jesse.bythell@gmail.com)

We are immensely grateful to all the generous people who have contributed images to our website over the years. To date there have been 322 photographers who have contributed over 31,000 photos. Of the 2,545 native vascular plant fact sheets on our website, only 66 of these lack any images, and these are listed below. Many of these species are rare and this is likely the key reason we lack any images for them.

If you have high quality images of these taxa and would like to share them with NZPCN and the wider community please get in touch with us at info@nzpcn.org.nz

A big thank you to those of you who have already contributed images since this request was first published last month.

SCIENTIFIC NAME	COMMON NAME	FAMILY
<i>Agrostis subulata</i>		Poaceae
<i>Althenia bilocularis</i>		Potamogetonaceae
<i>Archeria traversii</i> var. <i>australis</i>		Ericaceae
<i>Azorella colensoi</i>		Apiaceae
<i>Brachyglottis bellidioides</i> var. <i>bellidioides</i>		Asteraceae
<i>Brachyscome lucens</i>	Ward Beach daisy	Asteraceae
<i>Caladenia minor</i>	caladenia	Orchidaceae
<i>Cardamine unicaulis</i>	cress	Brassicaceae
<i>Celmisia cordatifolia</i> var. <i>brockettii</i>	mountain daisy	Asteraceae
<i>Celmisia cordatifolia</i> var. <i>similis</i>	mountain daisy	Asteraceae
<i>Celmisia glabrescens</i>		Asteraceae
<i>Chiloglottis formicifera</i>	ant orchid	Orchidaceae
<i>Chionochloa flavescens</i> subsp. <i>lupeola</i>	snow tussock	Poaceae
<i>Colobanthus hookeri</i>	Hooker's Colobanthus	Caryophyllaceae
<i>Colobanthus squarrosus</i> subsp. <i>drucei</i>	Colobanthus	Caryophyllaceae
<i>Colobanthus squarrosus</i> subsp. <i>squarrosus</i>	Colobanthus	Caryophyllaceae
<i>Craspedia diversicolor</i>	Wakanui woollyhead	Asteraceae
<i>Craspedia robusta</i>	woollyhead	Asteraceae
<i>Craspedia uniflora</i> var. <i>grandis</i>		Asteraceae
<i>Epilobium krulleanum</i>	willowherb	Onagraceae
<i>Eragrostis leptostachya</i>	paddock lovegrass	Poaceae
<i>Festuca deflexa</i>		Poaceae
<i>Festuca ultramafica</i>	serpentine fescue	Poaceae
<i>Geum albiflorum</i>	Auckland Island geum	Rosaceae
<i>Gingidia amphistoma</i>		Apiaceae
<i>Haastia recurva</i> var. <i>wallii</i>	Haastia	Asteraceae
<i>Hebe matthewsii</i>	hebe	Plantaginaceae
<i>Hypericum gramineum</i>		Hypericaceae
<i>Koeleria riguorum</i>		Poaceae
<i>Lachnagrostis billardierei</i> subsp. <i>tenuiseta</i>	wind grass	Poaceae
<i>Lachnagrostis glabra</i>	saltmarsh wind grass	Poaceae
<i>Lachnagrostis leptostachys</i>	wind grass	Poaceae
<i>Leptinella intermedia</i>		Asteraceae
<i>Luzula traversii</i> var. <i>tenuis</i>		Juncaceae
<i>Microtis arenaria</i>		Orchidaceae
<i>Myosotis umbrosa</i>		Boraginaceae

<i>Myosotis amabilis</i>		Boraginaceae
<i>Myosotis elderi</i>		Boraginaceae
<i>Notogrammitis gunnii</i>	strapfern	Polypodiaceae
<i>Pimelea aridula</i> subsp. <i>oliga</i>	pimelea	Thymelaeaceae
<i>Pimelea cryptica</i>	pimelea	Thymelaeaceae
<i>Pimelea dura</i>	pimelea	Thymelaeaceae
<i>Pimelea hirta</i>	pimelea	Thymelaeaceae
<i>Pimelea nitens</i> subsp. <i>aspera</i>	pimelea	Thymelaeaceae
<i>Pimelea oreophila</i> subsp. <i>ephaistica</i>	pimelea	Thymelaeaceae
<i>Pimelea oreophila</i> subsp. <i>hetera</i>	pimelea	Thymelaeaceae
<i>Pimelea traversii</i> subsp. <i>boreus</i>		Thymelaeaceae
<i>Poa acicularifolia</i> subsp. <i>ophitalis</i>	ultramafic cushion poa	Poaceae
<i>Poa aucklandica</i> subsp. <i>aucklandica</i>	Auckland Island poa	Poaceae
<i>Poa aucklandica</i> subsp. <i>campbellensis</i>	Campbell Island poa	Poaceae
<i>Poa celsa</i>		Poaceae
<i>Poa dipsacea</i>		Poaceae
<i>Poa intrusa</i>		Poaceae
<i>Poa maia</i>		Poaceae
<i>Poa ramosissima</i>		Poaceae
<i>Poa xenica</i>		Poaceae
<i>Pteris epaleata</i>		Pteridaceae
<i>Puccinellia antipoda</i>	Antipodes saltgrass	Poaceae
<i>Ranunculus biternatus</i>		Ranunculaceae
<i>Raoulia hookeri</i> var. <i>laxa</i>		Asteraceae
<i>Rytidosperma viride</i>		Poaceae
<i>Senecio linearifolius</i>	fireweed groundsel	Asteraceae
<i>Thelymitra intermedia</i>	sun orchid	Orchidaceae
<i>Trithuria brevistyla</i>		Hydatellaceae
<i>Veronica cryptomorpha</i>	hebe	Plantaginaceae
<i>Veronica ciliolata</i> subsp. <i>fiordensis</i>		Plantaginaceae

UPCOMING EVENTS

If you have events or news that you would like publicised via this newsletter please email the Network (info@nzpcn.org.nz), prior to the published copy deadline for meetings, field trips or other events taking place during the following month or later. The deadline for copy for the following month's *Trilepidea* is at the top of the front page of each issue.

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

Auckland Botanical Society

Meeting: Tuesday 1 November – Lucy Cranwell Lecture at 7.00pm. **Speaker:** Dr Colin D. Meurck, Landcare Research – Manaaki Whenua. **Topic:** In an Age of Multiple Global Emergencies – Cities are Keys to Biodiversity and Planetary Futures.

Venue: Auckland Museum Auditorium.

Field Trip: Saturday 19 November to Te Arai/Forestry. **Meet:** Carpark near the point on Te Arai Point Road at 10.00am. Follow the signs to Mangawhai from SH1 and then take Te Arai Point Road.

Leader: Jack Warden, email warden899@hotmail.com, ph. 021 203 3484.

Waikato Botanical Society

Field Trip: Saturday 5 November to Taupo Reserves and some geothermal sites (Combined with Rotorua Botanical Society).
Meet: At the Rotorua carpark at 8.00am or in Taupo (details TBA).
Grade: Easy.

Leader: Chris Bycroft, email chris.bycroft@wildlands.co.nz, ph. 027 498 5513.

Rotorua Botanical Society

Field Trip: Saturday 5 November to Taupo Reserves and some geothermal sites (Combined with Waikato Botanical Society).
Meet: At the Rotorua carpark at 8.00am or in Taupo (details TBA).
Grade: Easy.

Leader: Chris Bycroft, email chris.bycroft@wildlands.co.nz, ph. 027 498 5513.

Wellington Botanical Society

Field Trip: Saturday 19 November to Te Marua Bush working bee. **Meet:** Te Marua Bush at 9.30am. Turn onto Twin Lakes Road (Kaitoke Regional Park) from SH2.

Co-leaders: Glennis Sheppard, ph. 04 526 7450 and Sue Millar, ph. 04 526 7440.

Meeting: Monday 21 November at 7.30pm. **Speaker:** Brian Rance, Department of Conservation Invercargill. **Topic:** The vegetation and flora of the Catlins.

Venue: Victoria University, Wellington, Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade.

Nelson Botanical Society

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

Canterbury Botanical Society

Meeting: Monday 7 November at 7.30pm. **Speaker:** TBA.
Topic: Screening of the film Nga Reporepo, followed by a panel discussion.

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

Field Trip: Friday 11 to Sunday 13 November (Spring Camp) to Lake Coleridge – Snowden – Roundtop area.

Leaders: Miles and Gillian Giller, contact fieldtrips@canterburybotanicalsociety.org.nz if you intend to participate or have any questions.

Botanical Society of Otago

Meeting: Wednesday 9 October at 5.20pm. **Topic:** Drawing Competition artwork on display.

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

Field Trip: Saturday 19 November to Silver Peaks Possum Hut/ Green Ridge circuit.

Contact: Robyn Bridges, ph. 021 235 8997.
