



TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 207

May 2021

Deadline for next issue:
Friday 18 June 2021

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

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NEW ZEALAND

PLANT OF THE MONTH, p. 2



Ranunculus stylosus. Photo: Rowan Hindmarsh-Walls.

Applications open for the 2021 David Given Threatened Plant Scholarship

Alex Fergus (fergusa@landcareresearch.co.nz)

The NZPCN is very pleased to announce that we are now inviting applications for the David Given Threatened Plant Scholarship (DGTPS). Many of you will know that David was a plant systematist and a pioneering plant conservationist in New Zealand, as well as a great friend and mentor to many. David was also heavily involved with the NZPCN, as well as many other organisations. To honour David's legacy the scholarship is used to fund research that assists the protection and recovery of New Zealand's threatened plant species and their communities. The DGTPS panel have the role of awarding the scholarship only to projects which meet these objectives. The last project funded by the DGTPS is an excellent example of the sort of research that we are aiming to support. This was Debra Wotton's research into understanding recruitment failure of the Threatened – Nationally Vulnerable dryland shrub *Veronica (Hebe) armstrongii*. More about Debra's research can be found at https://www.nzpcn.org.nz/site/assets/files/0/51/307/trilepidea_february_2019_final.pdf

One scholarship is awarded every two years and will provide up to \$8000 towards the cost of a research project. The scholarship is open to New Zealand residents or citizens but could involve overseas researchers who collaborate with the New Zealand principal researcher. Threatened species and communities can be either nationally or regionally threatened and these encompass vascular and non-vascular plants as well as fungi.

There is no formal application form for this scholarship. Written applications should address the list of subject areas identified in the brochure at the end of this newsletter but also on our website at <https://www.nzpcn.org.nz/nzpcn/awards/david-given-scholarship/>. We also ask you to identify two referees in your application who can be consulted for their opinion on the merit of the proposed research and the applicant's aptitude for delivering the research. A referee form is available in the brochure, and both referees need to submit their forms before the application closing date.

The DGTPS panel may refrain from making an award if, in their opinion, there is no applicant of sufficient merit or no project which directly assists the protection and recovery of New Zealand's threatened plant species and their communities.

Applications close on Friday 30 July 2021. The DGTPS panel will notify the successful applicant by Friday 27 August 2021, permitting time to undertake relevant project logistics for the 2021/2022 field season. The name of the successful applicant will be announced on the NZPCN website shortly after they have confirmed their acceptance of the scholarship. The applicant will be asked to assist the DGTPS panel in writing a short article for the NZPCN newsletter *Trilepidea* upon receiving the scholarship. Scholarship recipients are also required to deliver a short report summarising the project's results upon completing the research. This report or extracts thereof will also be published in *Trilepidea*.

To enquire about the DGTPS, contact Alex Fergus, fergusa@landcareresearch.co.nz

PLANT OF THE MONTH – *RANUNCULUS STYLOSUS*

Rowan Hindmarsh-Walls (rowan.hindwalls@gmail.com)

The plant of the month for May is *Ranunculus stylosus*, one of at least forty-six species of *Ranunculus* native to the New Zealand region. The species is only found above the bush-line on the Tin Range and Deceit Peaks in the southern part of Rakiura/ Stewart Island.



Ranunculus stylosus Mt Allen, Tin Range, Rakiura/Stewart Island 15 March 2017. (top) Leaves are three-lobed and distinctly hairy on the upper surface, (bottom) flowers are almost sessile (lacking a stem). Photos: Rowan Hindmarsh-Walls

R. stylosus is a small alpine plant which inhabits drier exposed and windswept gravelly areas in the tundra-like alpine herbfields and short tussock grassland. Plants consist of one or few rosettes of leaves, all of which are flattened to the ground. Each leaf has three lobes and an obviously hairy upper surface, especially around the leaf margins. The five to seven petalled, yellow flowers are almost sessile (without a long stem) and the dark brown achenes (seeds) are borne on very short thick stems tucked down into the leaves.

Ranunculus stylosus can be found growing with at least two other *Ranunculus* species; *R. kirkii*, and *R. viridis*. It is easily distinguished from these species by its prostrate (ground-hugging) habit. *R. kirkii* can also have three-lobed leaves, but this species is much more erect in stature, inhabits damp ground, and is generally found at lower elevations. *R. viridis* is found in similar habitats but has a more upright stature and very shiny leaves with a greater number of lobes on each leaf.

R. stylosus is endemic to New Zealand, with a current threat status of 'At Risk - Naturally Uncommon' as it has a restricted distribution, and is only scattered within its range. It appears that the species has no obvious direct threats.

The genus name *Ranunculus* is apparently Latin for "little frog". This probably refers to many species being found near water, like frogs. The species epithet *stylosus* means 'with a prominent style', from the Greek 'stylos' or pillar, botanically referring to the style part of the flower.

You can view the NZPCN website factsheet for *Ranunculus stylosus* at: <https://www.nzpcn.org.nz/flora/species/ranunculus-stylosus/>

New Chatham Islands locations for *Caloplaca maculata* D.J.Galloway (Teloschistaceae)

Peter J. de Lange (pdelange@unitec.ac.nz), School of Environmental & Animal Sciences, Unitec Institute of Technology, Auckland, Theo J.P. de Lange (Natural Resource Assessors, 16 Jesmond Terrace, Mt Albert, Auckland 1025), Tom Hitchon (thitchon@doc.govt.nz) and Erin Patterson (epatterson@doc.govt.nz), Rekohu / Wharekauri / Chatham Islands Office, Department of Conservation, P.O. Box 114, Chatham Island 8942.

Caloplaca maculata (Teloschistaceae) (Fig. 1) is a saxicolous lichen that was described as a new species from rocks near Ellice Point, Rēkohu / Wharekauri / Chatham Islands (Galloway 2004). At the time of its description it was cautiously suggested that it might be endemic to the Chatham Islands. Then, in 2012 Allison Knight and Danish *Caloplaca* expert Ulrik Søchting discovered *Caloplaca maculata* at the mouth of the Akatore River, south of Dunedin, South Island (de Lange 2012, de Lange 2019).



Fig. 1. *Caloplaca maculata* as seen at the type locality, on Red Bluff Tuff, near Ellice Point, Rēkohu / Wharekauri / Chatham Islands. Photo: P. J. de Lange.

Although not endemic to the Chatham Islands, *Caloplaca maculata* remains a poorly known species and, on those islands, it has only ever been known from the type locality, where, as documented by de Lange (2019), the species has steadily declined to the point of near extinction. However, de Lange (2019) felt this apparent restriction to a single site on the islands was unlikely, noting that although limited surveys for the species on similar tuffaceous rock outcrops (the ‘Red Bluff Tuff’) in the general vicinity of the type locality had failed to find further populations, there was a need for further opportunistic survey. Here we report on two new populations of *C. maculata* discovered whilst undertaking a *Lepidium* (Brassicaceae) survey on the islands.

New Chatham Islands *Caloplaca maculata* locations

Mairangi coastline, west of Cape Young, Rekohu / Wharekauri / Chatham Islands

On the eastern portion of a narrow peninsula west of Cape Young (near Mairangi), Wharekauri is an impressive exposure of uplifted basalt pillow lava and associated fossiliferous glauconitic sedimentary beds (Fig. 2). At this site the basalt rock is often devoid of lichens but in places, saxicolous lichens, notably genera within the Calicaceae, Lecanoraceae, Pertusariaceae and Teloschistaceae can be locally common.



Fig. 2. Basalt cliffs and an exposure of fossiliferous glauconite, west of Cape Young, near Mairangi, Rēkohu / Wharekauri / Chatham Island. Photo: P. J. de Lange.



Fig. 3. *Caloplaca maculata* habitat on basalt cliffs near Mairangi, Rēkohu / Wharekauri / Chatham Island. Photo: P. J. de Lange.

In one such place two of us (PdL, TdL) found *Caloplaca maculata* at the top of a series of extremely exposed north facing cliff faces (-43.702744 -176.634361, Fig. 3)) where numerous rosettes (Fig. 4, 5) were found admixed with *Amandinea* / *Buellia*, what may be *Caloplaca litoralis*, *Caloplaca* s.l., *Dufourea ligulata*, *Myriolecis dispersa* s.l., *Pertusaria graphica* and *Physcia caesia*.

The *Caloplaca* population occupied an area of about 8 × 2 m, in a narrow band of exposed rock, at the top of a c.10–15 m cliff face (Fig. 3). At this location *Caloplaca maculata* was mostly found on the more sheltered south facing side of the rock face. This is the first time this species has been found on basalt rock on the islands. At the type locality for *Caloplaca maculata*, the species grows on palagonitic tuff (“Red Bluff Tuff”) (de Lange 2019) a more easily eroded, coarse substrate than the firmer, smoother more durable basalt rock colonised at this new location.



Fig. 4 (left): *Caloplaca maculata* colony on basalt outcrop near Mairangi, Rēkohu / Wharekauri / Chatham Island. Photo: P. J. de Lange.

Fig. 5. *Caloplaca maculata* (centre, dark orange apothecia) on basalt outcrop growing admixed with Buelloid, *Myriolecis dispersa* s.l. and *Caloplaca* s.l. lichens. Photo: P. J. de Lange.

Wharekaikite Motu (Rabbit Island)

At the western end of Wharekaikite Motu (Rabbit Island) (-44.239948 -176.282577), an outcrop of Red Bluff Tuff (c.11 m a.s.l., (Fig. 6) supported a population of *Caloplaca maculata* (Fig. 7). Specimens at this site were less well developed than those seen on the basalt cliffs on the Mairangi coastline, with a morphology comparable to those seen at the type locality. Though a thorough survey was not possible because of the poor weather conditions experienced during our visit to this island, the impression is that the species is locally common at this site. However, a further visit, in better weather is needed to determine the extent of this population.



Fig. 6. *Caloplaca maculata* habitat on Red Bluff Tuff outcrops exposed on the western summit end of Wharekaikite Motu (Rabbit Island). Photo: P. J. de Lange.



Fig. 7. *Caloplaca maculata*, Wharekaikite Motu (Rabbit Island). Photo: P. J. de Lange.

As with the Mairangi population, specimens at this site were also confined to the more sheltered surfaces of the tuff rock, and there they grew in association with other *Caloplaca* s.l., *Myriolecis dispersa* s.l., and buelloid lichens (*Amandinea* or *Buellia*).

Notably the Wharekaikite Motu (Rabbit Island) is on the same substrate as that seen at the type locality near Ellice Point, Rekohu / Wharekauri / Chatham Island.

Discussion

Prior to these discoveries *Caloplaca maculata*, at least on the Chatham Islands, was believed to be teetering on the brink of extinction (de Lange 2019). Between 2004 and 2021, the species was only known from the type locality where the population had all but vanished by August 2019, a situation that had not improved when that site was last checked in December 2020. However, as noted by de Lange (2019) comprehensive surveys for *C. maculata* have never been done, only portions of coastline north and south of the type locality, and only the same palagonised tuff ('Red Bluff Tuff') had been opportunistically searched, without success.

The new populations, discovered during our *Lepidium* surveys, appear to be secure and thriving. In addition, the discovery of a population on a new substrate for the species; basalt, widens the scope for future surveys. These new finds also follow a pattern typical for many Chatham Island endemics and near endemics, which is that, threats aside, many species are naturally widespread across the islands, occupying a range of habitats but with a distinct preference for one as against the others.

It is also true that lichens are less likely to be surveyed for than the more conspicuous and so more easily identified in the field plants. This, though understandable, is an impediment to our understanding of lichen diversity on the Chatham Islands (de Lange 2019, Marshall & de Lange 2020). There remains a need for further targeted lichen survey and collection from a range of habitats across the islands (see de Lange 2011).

Opportunistic surveys though, by people familiar with a wide range of plants and mycobiota

can be highly effective. For example, these new discoveries of *Caloplaca maculata* only occurred because those surveying the coastline for *Lepidium* knew how to recognise this species. There is a need to continue the opportunistic survey for lichens such as *Caloplaca maculata*, as well as make collections of any lichen from the less frequently visited islands in the Chatham group. Consider the presumed endemic lichen *Lecanora kohu*, described from two specimens collected from Hokoreoro / Rangatira / South East Island in 2015 (Printzen et al. 2017). That species was not present in any lichen collections made from the Chatham Islands prior to the 2015 gatherings, but now that it has been described, opportunistic sampling has found *Lecanora kohu* to be common, and distributed widely across Rekohu / Wharekauri / Chatham Island, Rangihau / Rangiauria / Pitt Island, as well Hokoreoro / Rangatira / South East Island and Wharekaikite Motu (Rabbit Island) on a range of tree, shrub and vine phorophytes. We hope *Caloplaca maculata* will prove similar, though indications are that this species, least ways on the Chatham Islands, though potentially widespread will most likely be found there in small, sparsely and widely distributed populations. Only further surveys will tell.

Acknowledgements

We wish to thank Tony Anderson, Wharekauri Farm, for permission to access the Wharekauri – Cape Young coastline. We also thank Glen King and the crew of the Acheron II, for their exceptional skill at facilitating our landing and departure from Wharekaikite Motu (Rabbit Island) on 11 February 2021.

References

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New Zealand Plant Conservation Network biennial conference, Queenstown 2022

Alex Fergus (fergusa@landcareresearch.co.nz)

The role of the NZPCN is to facilitate and advocate for plant conservation as well as providing information and support to plant conservation practitioners, landowners, and managers. Our biennial conferences are highly regarded as the best place to meet people who are passionate about plant conservation and to network and collaborate on shared issues and challenges.

Our next conference will take place in Queenstown in March 2022 and the focus will be restoration ecology in New Zealand. We see Queenstown as an ideal location to host a restoration focused conference given the extent of the conifer to native ecosystem conversion underway and the ever-increasing number and size of local restoration projects. The essential conference details are listed below. More announcements will follow on our webpage and in later issues of this newsletter.

Conference dates: 20–23 March 2022

Conference theme: Restoration Ecology in New Zealand

Topics within theme

- Challenges to scaling up restoration projects
- Eco-sourcing
- Engagement and education
- Iwi/hapu led restoration processes and case-studies
- Monitoring restoration projects
- Restoration after conifer removal
- Restoring threatened native plant populations
- Species richness and restoration

Timetable

Sunday 20 March: Workshops and evening registration and welcome event

Monday 21 March: Talks/presentations

Tuesday 22 March: Talks/presentations and conference dinner

Wednesday 23 March: Field trips

Conference organising committee

- Alex Fergus, Manaaki Whenua – Landcare Research (primary organiser)
- Joanna Smith, Wakatipu Reforestation Trust
- Jesse Bythell, QEII National Trust

Please address any queries to fergusa@landcareresearch.co.nz or 027 261 689

Newsletter contributions

The NZPCN welcomes contributions to the newsletter at any time. These can be as brief as a paragraph about an interesting botanical observation or as long as a detailed scientific paper. Ideally, contributions should include accompanying high resolution photos.

The NZPCN may edit contributions. In addition, these may be held over to a later issue where space limitations or other circumstances require this. Every effort is made to produce a newsletter monthly but, where insufficient copy is available, this may on occasion be reduced to bi-monthly.

The newsletter is usually published in the last week of the month, so if you have something you would like to have published in any particular month please ensure it is emailed to the NZPCN by the 20th of that month. All notes, articles, papers and upcoming event dates should be emailed to info@nzpcn.org.nz. We look forward to your contribution to future issues.

May Milford Musings

John Barkla (mjbarkla@xtra.co.nz)

Earlier this month my wife Marilyn and I walked the Milford Track. The Great Walk season was over and the huts were back to first-come-first served, without gas cookers and resident hut wardens. It seemed a good time to do a track that we'd put on the back-burner for years as we explored less popular backcountry tracks and routes.

For all its hype and profile, we found the Milford Track (Fig. 1) was a stunning and enjoyable way to experience, in relative ease, the botanical treats of rugged northern Fiordland.



Fig. 1. Roaring Burn, Arthur Valley, May 2021. Photo: John Barkla).

The beech forest in the valley floor had a profusion of autumn fungi. *Cortinarius*, *Lentinellus*, *Mycena*, *Clavulina*, *Gliophorus*, *Armillaria* and *Laccaria*, with colours right across the spectrum, lighting up the mossy ground. Understorey shrubs of rohu (*Neomyrtus pedunculata*), stinkwood (*Coprosma foetidissima*), weeping matipo (*Myrsine divaricata*) and *Coprosma rhamnoides*, (Fig. 2) were dripping with orange, purple and red fruits.

Lush Prince of Wales ferns (*Leptopteris superba*) crowded shaded gullies, and trackside herbfields supported Forster's forget-me-not (*Myosotis forsteri*), *Ranunculus membranifolius* and occasional native mint (*Mentha cunninghamii*).



Fig. 2. *Coprosma rhamnoides*, May 2021. Photo: John Barkla.

Above the bushline we were greeted by an impressive array of subalpine shrubs and small trees. Tree daisies, such as leatherwood (*Olearia colensoi*), mountain holly (*Olearia ilicifolia*) and musky tree daisy (*Olearia moschata*) were common. *Coprosma serrulata*, its large red fruits clumped beneath leathery leaves, dotted the trackside.

Dracophyllum was represented too, by *D. menziesii* and *D. fiordense*, (Fig. 3) the latter striking with long reddish leaves and curled tips. The most dramatic scenes though were the vast swathes of deciduous mountain lacebark (*Hoheria glabrata*), still just retaining their yellow-green autumnal foliage.

Banks of herbfields adorned the higher slopes below Mackinnon Pass. Despite the lateness of the season there were still occasional alpine flowers of *Gentianella*, *Celmisia* and *Dolichoglottis* to be found. Tarns and bogs supported cushion plants and sundews, and surrounding tussocklands had both the bold *Astelia petriei* and diminutive *Astelia linearis*. Mounds of *Raoulia buchananii* draped rocky knolls and outcrops.

All of this came with a backdrop of the immense Fiordland landscape, craggy towering mountains, swirling clouds and the calls of kea, kākā, kākāriki, whio, weka, pīwakawaka, toutouwai, miromiro, and korimako. We wondered if their abundance, at least in part, might have been attributable to the network of predator traps that spanned the track.

If you haven't already walked the Milford Track, it's worth considering. As a plant lover you won't be disappointed.

Hokianga Revegetation Project

Paul and Lis Bowker (treeplanternz@icloud.com)

We are fortunate to have lived in the Hokianga for some 40 years. As part of attempt to develop a Hokianga macadamia industry we became owners/guardians of some land at Ohuri on the south side of the Waima River. (Fig. 1) It is beneath the Tumatupo Pah site and looks across the river towards the Takapuna Pah site. Kumara pits and remnants of terracing exist. The hill side is north facing and exposed. (Fig.2)

The Macadamia industry was fun but a failure, so the land raised cattle for the next 30 odd years. The Northland Regional Council helped fence off the edge of the harbour and the mangroves have flourished. Two hectares of radiata pines and Tasmanian Blackwoods were planted in the 1980s.

Two steep eroding gullies protected a few native trees, pūriri, and tōtara were the ones I knew. The macadamias fed the rats.



Fig. 3. *Dracophyllum fiordense*, May 2021. Photo: John Barkla.



Fig. 1. Hokianga site locality map.



Fig. 2. Hokianga site overview. Photo: Paul Bowker.

We leased the grazing as hospital work took priority. As I (Paul) neared retirement around six years ago I thought that we should do more to prevent erosion so tried to work out a better fencing plan. Then the brainstorm—kick off the cattle and plant natives everywhere!!! I had been planting some natives in one steep gully which has some very mature pūriri, kohekohe, tawāpou, kānuka, tōtara and tanekaha.

A budget seemed to indicate costs around \$3.00 a plant. Pre-spray, labour and seedling price. At three metre spacing for 900 trees

per hectare on 16 hectares the estimated cost was \$40,000.00. The pines had just been felled and sold, a vegetation grant for mānuka planting was available, so we went ahead in May 2017 on all but the old orchard and 3 hectares of small paddocks, suitable for gardening, ponies and a retirement bach.

Hares and pukekos are present and we love them. The pooks have short memories. “That looks tasty” pulls out the seedling mānuka ...“oh, I didn’t like that yesterday” and lays it down. Hares just bite them off! The pooks are probably worm hunting.

Maybe ten percent lost, but in patches. The land slopes to the north so the hot summers we’ve experienced in 2020 and 2021 haven’t helped, but not an issue the first summer (fig. 3, 4).



Fig. 3 (left). Three year old mānuka and flax, June 2020. Fig. 4 (right). One year old mānuka, 2021. Photos: Paul Bowker.

However, at a three metre spacing a lost tree is a big gap. Lesson—consider clump planting to make shaded areas. Try and plant more if you possibly can. (Future income—a few jars of honey??)

We did buy flax plants which went into wet areas and added magnificent variety. Some pōhutukawa that we grew also went in and are also going very well.

Kikuyu—it must contain some carbon. It certainly has flourished. Has anyone checked its value as a carbon sink?

Haloxyfop is a selective spray and we have used it a lot. It has been vital, especially for the pōhutukawa/flax releasing, but it’s too expensive and labour intensive for the mānuka except for sporadic efforts

Where we have big gaps, glycofosphate then a replant of mānuka has been needed, but hard to achieve. Mānuka only release seeds after catastrophic stress, usually fire. I assume that this behaviour has benefits for the parent plant. In some areas we have cut some seed bearing branches off and placed them under the sprayed /dead kikuyu. This may help over time.

The three hectare remnant block of grazing/orchard became a mixed native planting attempt in 2020, so watch this space.

Native vascular plants lacking images on the NZPCN website as at April 2021

If you have good quality high resolution images of any of the species listed below and are willing to make them available for use on the NZPCN website we would love to hear from you at info@nzpcn.org.nz. All photographers are acknowledged and each is able to determine the level of copyright they wish to make applicable to their images.

<i>Agrostis subulata</i>	<i>Luzula banksiana</i> var. <i>orina</i>
<i>Althenia bilocularis</i>	<i>Microtis arenaria</i>
<i>Archeria traversii</i> var. <i>australis</i>	<i>Myosotis amabilis</i>
<i>Brachyscome lucens</i>	<i>Myosotis elderi</i>
<i>Caladenia minor</i>	<i>Myosotis umbrosa</i>
<i>Cardamine unicaulis</i>	<i>Notogrammitis gunnii</i>
<i>Celmisia cordatifolia</i> var. <i>brockettii</i>	<i>Notothlaspi viretum</i>
<i>Celmisia cordatifolia</i> var. <i>similis</i>	<i>Pimelea aridula</i> subsp. <i>oliga</i>
<i>Celmisia glabrescens</i>	<i>Pimelea cryptica</i>
<i>Celmisia rigida</i>	<i>Pimelea dura</i>
<i>Chiloglottis formicifera</i>	<i>Pimelea hirta</i>
<i>Chionochloa flavescens</i> subsp. <i>lupeola</i>	<i>Pimelea oreophila</i> subsp. <i>ephaistica</i>
<i>Colobanthus squarrosus</i> subsp. <i>drucei</i>	<i>Pimelea oreophila</i> subsp. <i>hetera</i>
<i>Colobanthus squarrosus</i> subsp. <i>squarrosus</i>	<i>Pimelea traversii</i> subsp. <i>boreus</i>
<i>Convolvulus verecundus</i> f. <i>glaberrimus</i>	<i>Poa acicularifolia</i> subsp. <i>ophitalis</i>
<i>Craspedia robusta</i>	<i>Poa aucklandica</i> subsp. <i>aucklandica</i>
<i>Craspedia uniflora</i> var. <i>grandis</i>	<i>Poa aucklandica</i> subsp. <i>campbellensis</i>
<i>Epilobium krulleanum</i>	<i>Poa celsa</i>
<i>Eragrostis leptostachya</i>	<i>Poa dipsacea</i>
<i>Festuca contracta</i>	<i>Poa intrusa</i>
<i>Festuca deflexa</i>	<i>Poa maia</i>
<i>Festuca ultramafica</i>	<i>Poa ramosissima</i>
<i>Geum albiflorum</i>	<i>Poa xenica</i>
<i>Gingidia amphistoma</i>	<i>Pteris epaleata</i>
<i>Haastia recurva</i> var. <i>wallii</i>	<i>Puccinellia antipoda</i>
<i>Hypericum gramineum</i>	<i>Ranunculus biternatus</i>
<i>Koeleria riguorum</i>	<i>Raoulia hookeri</i> var. <i>laxa</i>
<i>Kunzea salterae</i>	<i>Rytidosperma viride</i>
<i>Lachnagrostis billardierei</i> subsp. <i>tenuiseta</i>	<i>Senecio linearifolius</i>
<i>Lachnagrostis glabra</i>	<i>Thelymitra intermedia</i>
<i>Lachnagrostis leptostachys</i>	<i>Trithuria brevistyla</i>
<i>Leptinella intermedia</i>	

UPCOMING EVENTS

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

Australasian Systematic Botany Society (ASBS) Virtual Conference 2021

12–16 July 2021: This year's conference "Biodiverse Futures — Systematics in a Changing World" provides an exciting opportunity to view our research in a global context and how it contributes to addressing the big challenges such as biodiversity loss, climate change, habitat degradation and invasive species. We will also explore how new technologies such as artificial intelligence, machine learning, genomics and digital collections offer exciting opportunities to improve the way we meet those challenges in the context of national and international collaborations and knowledge exchange between cultures and across borders.

This virtual conference provides an unprecedented opportunity to connect researchers and practitioners globally who have an interest in the flora of Australasia and neighbouring regions. We are looking forward to an exciting program of presentations, scientific discussion and networking using an innovative virtual conference platform. We have priced registrations as low as possible (e.g. \$100 member earlybird) in the hope that institutional heads will recognise an opportunity for the full range of staff and associates to take advantage of the professional development activities an ASBS conference offers, particularly those that would not normally have the chance to attend one of our conferences.

Institutions may wish to take advantage of sponsorship opportunities which include bundles of registrations. In particular you may be interested in a Gift Registration Sponsorship package, designed to support the participation of stakeholders, collaborators and colleagues (e.g. from Asia and the Pacific) who would not normally have the opportunity to engage with our membership and conferences.

The scientific programme offers keynote addresses, symposium presentations, speed talks, virtual poster/short video/animations, and pre-conference workshops. There will be 4 hours of scientific sessions per day, spread over 5 days. There will also be ample time for networking and interest-group meetings using the conference virtual platform which provides the following virtual experience for delegates:

- Real-time, face-to-face interaction that makes virtual networking feel natural and fun.
- A virtual networking space with tables to host round-table discussions in mini-videoconferences
- A range of table sizes (2–8 chairs) in the networking space so that you can mix up your conversations and meetings
- An integrated system that connects the networking space with the presentation broadcast space
- Live Q&A sessions so attendees can ask their question in real-time
- Sponsorship virtual booths and the opportunity to talk directly with Sponsors

The conference website <https://asbs2021.bablglobal.com/> is now live and registrations and abstract submissions are now open:

- Link to registration page: <https://asbs2021.bablglobal.com/tickets/>
- Link to abstract submission page <https://asbs2021.bablglobal.com/abstract-submission/>

Key conference dates (Australian Eastern Standard Time): [Please note these dates differ slightly from those previously notified in emails, which were incorrect]

- Early bird registrations open: 29 Apr 2021
- Early bird registrations close: 30 May 2021
- Abstract submissions open 29 Apr 2021
- Abstract submissions close: 30 May 2021
- Preconference Workshop series: 5-8 July 2021
- Preconference virtual mixer: 11 July 2021

We look forward to you and your colleagues joining in our virtual conference.

Organising team: Katharina Nargar (Chair), Frank Zich, Darren Crayn, John Clarkson and Ashley Field

Queries: Please contact the organising committee by email at asbs2021virtual@gmail.com

Sponsorship queries: darren.crayn@jcu.edu.au, +61 (0)418 698 307

Auckland Botanical Society

Meeting: Wednesday 2 June at 7.30pm with speaker Emma Bodley from Auckland Botanic Gardens. **Topic:** Threatened plants and the role of Botanic Gardens in plant conservation.

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

Field Trip: Saturday 19 June to Cutty Grass Track, Waitakere Regional Park. **Meet:** Carpark on Anawhata Road at 10.00am. **Leader:** Geoff Davidson, ph. 09 813 0229 or 021 764 967

Waikato Botanical Society

Field Trip: Sunday 20 June to Waharoa QEII Covenant. **Meet:** Landcare Research carpark, Gate 10, Silverdale Road, Hamilton (time TBA) or at the entrance to Hawes Bush, Walker Road, Waharoa (time TBA). **Grade:** Easy. **Leader:** Dell Hood, email dhood@xtra.co.nz, ph. 027 521 9260

Rotorua Botanical Society

Field Trip: Sunday 13 June to Whakarewarewa wetlands, including 5 Mile Gate. **Meet:** Rotorua Council carpark at 8.00am or outside 5 Mile wetland (SH5) at 8.30am. **Grade:** Easy. **Leader:** Jacqui Bond, email supajac@yahoo.com, ph.021 125 9273

Meeting: Monday 14 June at 6.00pm. AGM followed by speaker Ewan Cameron. **Topic:** Costa Rica flora and fauna—a magic place. **Venue:** DOC, 99 Sala Street, Rotorua.

Wellington Botanical Society

Field Trip: Saturday 5 June to Field Reserve, Kapiti Coast. **Meet:** Coastlands Mall carpark (near pedestrian underpass from railway station) at 9.45am. **Leaders:** Helen White, email helenamywhite@gmail.com, ph. 022 413 5194 and Chris Horne, ph. 04 475 7025 or 027 474 9300

Field Trip: Saturday 19 June to Te Marua Bush, Upper Hutt (working bee). **Meet:** Te Marua Bush at 9.30am. **Co-leaders:** Glennis Sheppard, ph. 04 526 7450 and Sue Millar, ph. 04 526 7440

Meeting: Monday 21 June at 7.30pm. **Speaker:** Illona Keenan, Biosecurity specialist – Pest Plants, Wellington City Council. **Topic:** Woefully Weedy Wellington. **Venue:** Victoria University Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade.

Field Trip: Saturday 3 July to Whareroa Farm, TeAraRamaroa. **Meet:** Whareroa Farm car park (exit SH1 at MacKay's Crossing). **Leaders:** Lara Shepherd, email lara.shepherd@tepapa.govt.nz, ph. 027 363 5854 and Leon Perrie, email leonp@tepapa.govt.nz

Nelson Botanical Society

Field Trip: Sunday 20 June to Maitai Caves. **Leader:** Andrew MacDonald, email andy@nzandy.com, ph. 021 105 5905. **Please notify** by 15 June if intending to participate.

Meeting: Monday 21 June at 7.30pm with speaker Phil Garnock-Jones. **Topic:** The Natural History of NZ Native Flowers. **Venue:** Jaycees Room, Founders Park.

Canterbury Botanical Society

Meeting: Saturday 12 June at 7.30pm. AGM and Speaker Liz Meyer (via Zoom from California). **Topic:** TBA. **Venue:** Upper Riccarton Library community meeting room, 71 Main South Road.

Botanical Society of Otago

Meeting: Wednesday 9 June at 5.20pm. **Speaker:** David Orlovich, Department of Botany. **Topic:** Fungi at Orokonui Ecosanctuary. **Venue:** Room 215, 2nd Floor, Zoology Benham Building, 346 Great King Street.



David Given Threatened Plant Scholarship

To fund research into the biosystematics and conservation management, protection and recovery of New Zealand's threatened plants, fungi and their communities.

Objective

The scholarship will be granted for research that assists the protection and recovery of New Zealand's threatened plant species and their communities.

Eligibility and conditions

Applicants must be New Zealand residents or citizens but the work could involve overseas researchers who collaborate with the principal researcher.

Threatened species and communities can be either nationally or regionally threatened.

Plant species include vascular and non-vascular plants. Fungi are also covered by this scholarship.

Application

Please address the following areas in any written application for the scholarship.

Issue: Outline the issue to be investigated and why it is important to study this.

Research methods: Outline the approach you intend to take.

Impact: How will your research contribute to the better conservation of the threatened species or community?

Uptake: How will your research be used by your or other organisations?

Researchers: Outline the skills the researchers involved in the project have to ensure it can be successfully completed? Include current CVs of applicants.

Funding: Do you have other funding that is contributing to this project?

Budget: Outline the main items in your budget including equipment, laboratory and field expenses, and personnel.

Risks: Are there any factors that you consider could limit the success of your proposal? How will you mitigate these?

Referees: List 2 referees who can be consulted for their opinion on the proposed research

Scholarship rules

1. One scholarship shall be awarded every 2 years and provide up to \$8000 towards the cost of the research project.
2. The scholarship is to be awarded by a selection committee, which shall comprise:
 - a. The President of the NZ Plant Conservation Network (NZPCN)
 - b. At least one other member of the NZPCN Council
 - c. An independent person appointed by the NZPCN Council
3. The selection committee may refrain from making an award if, in their opinion, there is no applicant of sufficient merit.
4. There are no application forms for this scholarship. Written applications addressing each of the above subject areas should be sent to the New Zealand Plant Conservation Network, Box 16 102, Wellington (info@nzpcn.co.nz) and marked "David Given Scholarship".
5. Referee forms (see below) should be sent to the two nominated referees for completion and posting or email to the Network.
6. **Applications close Friday 30 July 2021.**
7. Scholarship recipients will deliver a short report summarizing the projects results upon completing the research.

David Given Threatened Plant Scholarship

Referee form

The applicant must send this form electronically to each of two referees nominated in the scholarship application. These referees should be familiar with the applicant's recent work.

The referee is requested to complete (continue on a separate sheet if necessary), print and sign this form and send to: New Zealand Plant Conservation Network, PO Box 16-102, Wellington. E: info@nzpcn.org.nz

Applicant: Family name: First name:

Referee: Name: Position/Title:

Address:

Phone: E-mail:

1. How long have you known the applicant: Years Months

2. Describe briefly the extent of your knowledge of the applicant's work including publications/papers/other relevant research:

3. Please rate the applicant's performance in the areas named below by placing a tick in the appropriate box using your knowledge of the applicant.

	No opportunity to observe	Below average	Average	Above average	Very good	Excellent
Knowledge of own discipline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to express ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Command of research techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Critical and/or analytical ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Initiative and motivation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perseverance in pursuing aims	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teaching or tutoring ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Please rate the applicant's aptitude for research (please circle) High Moderate/High Moderate Low

Please comment on reasons for gradings in Section 3, and other matters relevant to the applicant including academic integrity:

Signature of referee: Date:

Reports relating to this scholarship application must reach the New Zealand Plant Conservation Network on or before Friday 30 July 2021.