NEW ZEALAND PLANT CONSERVATION NETWORK

TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 162

May 2017

Deadline for next issue: Tuesday 15 June 2017

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 events@nzpcn.org.nz

Postal address:
P.O. Box 16102,
Wellington 6242,
NEW ZEALAND

PLANT OF THE MONTH, p. 2

Ranunculus viridis. Photo: Rowan Hindmarsh-Walls.

Response underway following myrtle rust find

Following last month's article (*Trilepidea* 161) about myrtle rust being found on Raoul Island, on May 4 Primary Industries Minister, Nathan Guy, and Conservation Minister, Maggie Barry, announced a biosecurity response is underway after the detection of myrtle rust on mainland New Zealand for the first time. As pointed out last month, myrtle rust is a fungal disease that can seriously damage various species of native and introduced plants in the myrtle family, including pohutukawa, rata, manuka, gum, bottlebrush and feijoa.

Myrtle rust.

The Ministry for Primary Industries (MPI) was notified on Tuesday 2 May by a nursery in Kerikeri that five pohutukawa seedlings had suspected myrtle rust; laboratory testing confirmed the finding. MPI has initiated a Restricted Place notice to restrict the movement of any plants and people at the site, and is treating nursery stock with fungicide spray as a precaution. Work is also underway to trace any stock that has left the nursery and all other nurseries in Kerikeri were inspected. Myrtle rust has subsequently been confirmed at several locations in Taranaki and Waikato.

As would have been apparent from the monthly Seed Bank reports, the myrtle family has been a primary seed collecting focus and this effort is being intensified. Since the announcement at the beginning of the month, the Department of Conservation has taken the lead in various ways including increased collection of seed.

All Network members can do their bit in the efforts against this disease. You can start by inspecting any members of the myrtle family that are in your garden and the gardens of neighbours. Anyone believing they have seen myrtle rust on plants in New Zealand should call MPI on 0800 80 99 66. It is very important not to touch the plants or attempt to collect samples as this will spread the disease. In particular, anyone who has purchased any plants from the myrtle family in the last month should check for physical signs and contact MPI if any are seen. For further information, see:

- 2017-Myrtle-Rust-Fact-Sheet MPI.pdf (779.74 KB) Myrtle rust.jpg (2.01 MB)

The NZ Indigenous Flora Seed Bank is seeking a person to coordinate its contribution to the Myrtle Rust response. The position is an 18-week contract based at Massey University, Palmerston North, starting with immediate effect (within +/- 2 weeks). Candidates for this post/ secondment will need to have the right to work in Aotearoa New Zealand.

Anyone interested in this offer, please contact Craig McGill, project leader for the NZIFSB, by email: C.R.McGill@massey.ac.nz, or on direct dial +64 6 951 7803.

PLANT OF THE MONTH – *RANUNCULUS VIRIDIS*

Ranunculus viridis. Photo: Rowan Hindmarsh-Walls.

The plant of the month for May is *Ranunculus viridis* or 'Mount Allen buttercup', one of three *Ranunculus* species endemic to Stewart Island. As the common name suggests, *R. viridis* is found only on Mount Allen on the Tin Range, southern Stewart Island, where it can be found under damp, shaded clefts and ledges. The species has very strict habitat requirements and does not seem to be able to cope with competition from other vascular plants, since it is often found growing in beds of moss and liverwort.

The plant forms small clumps of rosettes, with large fleshy rhizomes. The leaves are also fleshy, almost hairless, shiny and bright, vibrant green. The flowers are apparently bright yellow, and the seed heads short, not protruding much above the leaves. It is sympatric with another Stewart Island endemic, *R. stylosus,* but this species has a much wider habitat range, and is far more common than *R. viridis.*

The species is apparently closely related to *R. pinguis* of the Subantarctic Islands and *R. sericophyllus,* a South Island alpine species. Although *R. viridis* is similar in appearance to both these two species, it is unlikely to be confused with them since neither *R. pinguis* nor *R. sericophyllus* occur on Stewart Island.

Ranunculus viridis has a current threat ranking of Threatened- Nationally Critical because it has a very restricted distributional range, with probably less than 10 hectares of suitable habitat on Stewart Island. There are only six known populations, with possibly fewer than 50 individual plants total! This is a very rare species! Very little is known about it because the area is remote and there is currently no routine monitoring. We suspect that the population is stable, but, because it is so small, we think that it may have been larger in the past; possibly deer browse pressure has removed plants from more accessible sites. It may therefore be threatened by deer browse but with such a small population, this is hard to assess.

The species epithet '*viridis*' is the Latin word for 'green', referring to the vibrant green leaves of the plant. You can view the Network factsheet for *R. viridis* at: http://www.nzpcn.org.nz/flora_details.aspx?ID=664

Shenzhen International Award in Plant Sciences

The Organizing Committee of the XIX International Botanical Congress (the IBC 2017) have recently launched the Shenzhen International Award in Plant Sciences. The award is intended to recognize scientists who have conducted breakthrough research in both basic and applied plant sciences and whose outstanding contributions have impacted our understanding of the plant world.

Nominations for the award should be submitted using the online nomination system at the IBC 2017 web site [http://ibc2017.cn/szaward/]. The closing date for nominations is 24:00 on Friday, June 30, 2017 Beijing time.

More details are available on the BGCI and IBC websites:
http://www.bgci.org/news-and-events/news/1408/ http://ibc2017.cn/szaward/

Saving an extremely rare native plant

Will Harvie, Fairfax Stuff

From Wellington, Dr Debra Wotton is propagating a critically endangered New Zealand native plant called dry plains shrub daisy. The patchwork effort to preserve New Zealand's most threatened plants is illustrated by an extremely rare daisy that grows naturally only in Canterbury and has been raised and studied in Wellington. The critically endangered "dry plains shrub daisy" (*Olearia adenocarpa*) is failing to regenerate in the wild, says primary researcher, Dr Debra Wotton. There are fewer than 700 adult plants left and it is ranked among the 50 most threatened New Zealand plants.

Debra Wotton inspects *Olearia adenocarpa seedlings.* Photo: Ross Giblin/Fairfax NZ.

The daisy is one of 150 animals and plants that will get "enhanced" protection under the Draft Threatened Species Strategy that Minister of Conservation Maggie Barry released last week. Working from Wellington's Otari Native Botanic Garden and Wilton's Bush Reserve – the only public botanic garden dedicated solely to native plants – Wotton germinated the daisy and Otari staff have raised the plants over the last 18 months. Simultaneously, Wotton was conducting field trials to determine how best to return the plant to the wild in Canterbury. The daisy occurs naturally only in the Waimakariri and Rakaia river flood plains where it occupies stony, sandy areas in former river channels, Wotton says. It likely colonised these sites after floods deposited fresh sediments. Flood protection works have reduced flooding and stopped the creation of the daisy's preferred habitat.

Meanwhile, historical burning and grazing by stock have replaced native shrub lands with exotic grasslands. The daisy cannot compete with exotic grasses. In short, almost all of the ecosystem needed by the daisy is missing. Efforts to preserve the daisy in the wild have included fencing – especially to stop browsing by hares and rabbits – and spraying herbicide on exotic grasses. But these programmes are expensive, intensive and cover relatively small areas.

Wotton's work has two aspects. First, she has germinated the dry plains shrub daisy at Otari, a successful effort that will see 70 sub-adult individuals sent to Christchurch City Council. The plan is for Department of Corrections crews to plant them out later this year. (Otari will keep about a half dozen daisies for its own collection and as insurance in case the species fails in Canterbury.)

Incidentally, germinating natives is not necessarily straightforward. Efforts at Otari to raise other rare natives have sometimes failed, says Rewi Elliot, acting manager of Wellington Gardens. In one case, the plants were dead within weeks of planting in the ground.

A second aspect of Wotton's research is getting the daisy to thrive in wild conditions in Canterbury. Simply 'plonking' the plants into suitable ground isn't worthwhile because they can't compete. An answer is habitat restoration, a much more ambitious project. Working with Environment Canterbury and the University of Canterbury, Wotton is conducting field trials to test whether shade and shelter, including from other native shrubs but also constructed wooden shelters with shade cloth, can help the daisy survive in the wild. Wotton and colleagues are also testing ''natural disturbance regimes'' by adding gravels to growing sites. These replicate, in some measure, the daisy's preferred habitat. Wotton said germinating the daisy and the habitat research were initially separate projects but, having raised the plants, it would have been a waste to not send them to Canterbury. Otari was keen and she worked her connections in the southern city to bring the various agencies, and the Department of Corrections, together. "For a lot of species, we don't know why they are declining or how to reverse that decline,'' says Wotton. ''My research helps us a get a handle on that and helps us reverse the decline.''

The draft Threatened Species Strategy released on 10 May will—if it survives public consultation intact —"manage 500 [New Zealand] species for protection by 2025 ... and 600 species for protection by 2030". In addition, it identifies 150 species for enhanced protection, "ensuring that the long-term health of 150 threatened and at-risk species will be improved". The top 50 of these are "notable to New Zealanders and currently receiving management". Think kiwi, kakapo, Maui's dolphin, tuatara and the like. Just five plants make the top 50, including Bartlett's rātā. The next 100 contains 34 plants, including the dry plains shrub daisy. It's not clear from the draft document what "enhanced protection" means for the daisy or Wotton's research.

The daisy research programme illustrates—depending on point of view—how many organisations and individuals are already working together to preserve rare plants and shows exactly where the draft strategy can help. Alternatively, it shows how patchwork current efforts are. Otari, for example, is funded entirely by Wellington City Council but assists with rare plants from around the country, including Northland, Whanganui, Canterbury and Otago. The daisy research is driven by a private consultant volunteering some of her time and working connections with, among others, the Department of Corrections. They could use some help. (*If you are able to help, please contact Debra Wotton, email: debrawotton@moasark.co.nz*)

(Editor's note: This article is published with permission of the Dominion Post. It first appeared on 15 May; the whole article may be read at: https://www.pressreader.com/new-zealand/the-dominion-post/20170515/281852938

Nothing but a couple of buttercups: Botanists have a 'Ranunculusly' good time surveying the Tin Range

(Translation—Data deficient *Ranunculus* survey on the Tin Range, Stewart Island)

Rowan Hindmarsh-Walls

The southern part of Stewart Island is notable not only for its remoteness and amazing landscape features, but also its bad weather and the 'quality' of its scrub, which is well described in Wilson's (1987) book '*The Vegetation of Stewart Island, New Zealand*'. Because of the area's remoteness and scrubbiness, few botanists are silly enough to explore this interesting part of our country. While helping review the threat status of New Zealand's vascular plants, it became apparent that many species endemic to this area had not been given enough recent attention, so Brian Rance and I decided to try to mount a mission to the area to assess the ecology and threat status of a few of the lesser known species endemic to southern Stewart Island, particularly the critically endangered buttercup, *Ranunculus viridis*. A successful application to the Department of Conservation data deficient fund and some help from our colleagues in the Stewart Island DoC office, allowed us to embark on a trip to the windswept Tin Range.

The relatively gentle, but imposing Tin Range divides the southern part of Stewart Island into east and west sectors. It runs north-south for approximately 18 km from Rakeahua Valley in the north to northern Port Pegasus in the south. Here, we include Mt Allen, Blakies Hill and Table Hill in our definition of the 'Tin Range'. An unusual feature of the range is that the bush-line, or 'scrub-line' in this case, is at

The view south from Mount Allen.

approximately 500 m elevation, far lower than anywhere else in the country. This means that although the range is relatively low, with the highest point being Mt Allen (750 m), there is almost 15 km of unbroken, true alpine vegetation along the range. This ribbon of alpine vegetation is home to most of the vascular plants endemic to the southern part of the island. This fact was rather convenient for us, since the lower scrubby slopes are home only to the rat-gnawed remains of botanists and explorers alike, silly enough to venture in without several months of supplies and a hide like a rhino.

Table Hill.

The range is geologically complex, producing subtle ecosystem changes along its length, and potentially explaining the weird distribution patterns of some plant species present. This seemed especially relevant to our main target species, *Ranunculus viridis*.

The species we were most interested in surveying on the trip were:

1. ***Ranunculus viridis*** (Mt Allen buttercup) – 'Nationally Critical'[1] with a data poor qualifier, found only on Mt Allen.
2. ***Aciphylla stannensis*** (Tin Range spaniard) – 'At Risk- Naturally Uncommon', found only on the Tin Range.
3. ***Ranunculus stylosus*** (Southern Stewart Island buttercup) – 'At Risk- Naturally Uncommon', found only on the high points of southern Stewart Island.
4. ***Aciphylla cartilaginea*** (Southern Stewart Island spaniard) – 'At Risk- Naturally Uncommon', found on the high points of southern Stewart Island.
5. ***Chionochloa lanea*** (Southern Stewart Island tussock) – 'At Risk- Naturally Uncommon', found only on the high points of southern Stewart Island.
6. ***Celmisia polyvena*** (Southern Stewart Island celmisia) – 'At Risk- Naturally Uncommon', found only on the high points of southern Stewart Island.

Ranunculus viridis.

Aciphylla stannensis.

Ranunculus stylosus.

Celmisia polyvena.

A lively crew, comprising Anna Harris, Brian Rance, Cherie Hemsley, Geoff Rogers and me, was raring to go when we climbed in the 'chopper' at the Oban hangar. We'd spent the night before poring over maps, species lists and books, figuring out the places we wanted to visit, to get the best bang for our buck, since we had a limited fine weather window and didn't want to get caught out on the tops in really bad weather. As the first day was a 'corker', we settled on splitting into two teams to survey different areas, then re-joining at the end of the day to camp in a sheltered saddle a few kilometres north of Mt Allen. Anna and I were dropped off at Lees Knob, a huge scrubby dome of exfoliating granite, and surveyed

1 The listed rankings are from de Lange et al. (2012).

our way north to Mt Allen. Brian, Geoff, and Cherie surveyed the ridge north of Mt Allen to our camp saddle. Brian's crew hit the jackpot on the first day and found six populations of *Ranunculus viridis* (plant of the month), which turned out to be all we found of that species on the whole trip. Both teams found scattered populations of *Aciphylla stannensis* and *R. stylosus.* The other local endemics, *Aciphylla cartilaginea, Celmisia polyvena* and *Chionochloa lanea* were widespread and abundant. Some of the more widespread Stewart Island endemics including *Abrotanella muscosa, Astelia* aff. *nervosa, Brachyglottis bellidioides* var. *crassa, Bulbinella gibbsii* subsp. *gibbsii, Celmisia* aff. *graminifolia, Celmisia clavata, Chionochloa crassiuscula* subsp. *crassiuscula, Euphrasia* aff. *dyerii, Gingidia flabellata* and *Raoulia goyenii,* were also found and surveyed on the first day. We were also able to confirm Hugh Wilson's observation that on Mt Allen there was indeed an outlier population of the supposed Fiordland endemic, *Epilobium matthewsii*. A few populations of what we thought may be *Epilobium cockayneanum* were also found (ID to be confirmed). One of the more weird finds of the day was an inter-generic hybrid *Leucogenes grandiceps* × *Raoulia goyenii.* The team got back to camp buzzing after our fantastic day 'at the office' and, after basking in our glory of having found so many amazing plants in one day, we went to bed with the harsh sounds of Stewart Island tokoeka (kiwi) echoing around the hills.

Celmisia clavata.

Raoulia goyenii.

Leucogenes grandiceps × *Raoulia goyenii.*

The second day dawned a 'cracker', but quickly deteriorated and, by the time we left camp, we were in thick damp cloud with visibility down to 20 m and a good 50 km/h wind blowing across the top of the range. We decided to have another crack at trying to find a few more populations of *R. viridis* around the main Mt Allen peak but, having found no new sites after half an hour, were forced back by the wind and rain and decided to bail out on our plan. We high-tailed it (for botanists this means walking slightly faster than the normal snail's pace) back to camp, where we packed up and shipped out along the range to the Department of Conservation workers bivvy near Table Hill. We counted the *Aciphylla stannensis* plants we found along the way, to get an estimate of the total population and found more good populations of *R. stylosus*, as well as the uncommon rush, *Rostkovia magellanica.*

The third day dawned fine, clear and crisp and, although we were out of the range of *R. viridis* and *A. stannensis*, we decided to explore the Table Hill tops, to see what we could find. Many good populations of *R. stylosus* were found and we encountered the Southland regional endemic *Carex filamentosa*, and the data deficient *Agrostis pallescens.* On the barer stony areas near the top of Table Hill we found a few plants of what looked like *Luzula pumila*, a species not previously recorded on the island. Unfortunately, there were too few plants to collect a specimen, so photographs were taken instead.

As well as being nearly blown away by the relentless gale, we were blown away by the amazing landscape features constituting the tops of Table Hill. Despite the relatively gentle topography, the striking hard lines between vegetation types were a notable feature of this landscape. There was a distinct, abrupt boundary between the scrub zone and the alpine cushion turf and, within the scrub, pronounced

bands of pink pine (*Halocarpus biformis*) to leatherwood (*Olearia colensoi* var. *argentea*) to manuka (*Leptospermum scoparium*) could be seen, as exposure increased and drainage decreased. Eventually, we got sick of the wind smacking us around, and headed back to the hut to have dinner.

On the fourth and final day we packed up our gear, and descended from Table Hill down into Rakeahua Valley, exploring some upland red tussock (*Chionochloa rubra* subsp. *cuprea*) basins on the way. We found some great stands of old *Olearia laxiflora* and many patches of *Ranunculus kirkii*, another Stewart Island endemic buttercup. When we reached the valley floor, we had a few hours to kill before our water taxi pick up, so we decided to botanise the valley flats on the way. Rakeahua Valley is a very important site for threatened lowland plants because it has a mostly intact lowland valley floor ecosystem and is one of the few places on the island where kahikatea is present. Brian knew a spot along a river levee that had *Ranunculus ternatifolius* (Nationally Vulnerable), *Myosotis teneracaulis* (Naturally Uncommon), *Crassula ruamahanga* (Naturally Uncommon), and *Tetrachondra hamiltonii* (Data Deficient) growing in close proximity to each other. We located the place and, to our delight, found all three species still inhabiting the site. Further downstream, we investigated a clearing with a resident herd of whitetail deer and a large grove of mature *Coprosma wallii* (At Risk-Declining), which had been found some years earlier by Geoff. Unfortunately, there did not appear to be any regeneration of the species because the deer had chewed off any seedlings that popped up above the grass. At this site, we also found a nice patch of *Ourisia modesta* (Nationally Critical), more *Myosotis teneracaulis*, scattered plants of *Carex tenuiculmis* (At Risk- Declining) and *Mentha cunninghamii* (At Risk- Declining), and one plant of *Juncus pauciflorus* (Nationally Vulnerable) growing on the edge of the track. We made it to the landing just as the water taxi arrived on high tide, and had a pleasant ride out South West Arm, into Patterson Inlet, and on to Oban, where we polished off the trip with a big pile of fish and chips followed by a nice dram of quality whiskey.

All in all, the trip was a great success; we had an awesome time on our botanical treasure hunt. All our target species were located and assessed, with additional information gathered on many non-target species. In summary, our findings for the target species are outlined below:

Ranunculus viridis

A very small population was found scattered across six sites. A total of only 153 rosettes were found, but we estimate that there are probably fewer than 50 individual plants. (The plant is rhizomatous, therefore it is difficult to determine how many separate plants exist.) It should retain its 'Nationally Critical' threat ranking. We could not find any obvious threats but plants, on occasion, may be browsed by deer. We think further investigation of the exact population size is needed and all available habitat on Mt Allen should be investigated to locate any un-discovered populations of the species.

Aciphylla stannensis

A restricted distribution between Blakies Hill and Granite Knob. The species is sparse, but extrapolation of the number of plants we encountered would suggest it most likely has a population in excess of 5000 individuals, scattered across at least 1000 hectares of available habitat. No obvious threats were observed.

Ranunculus stylosus

Limited available habitat (exposed gravelly or clay rich, semi-bare alpine cushion-fields), but was sometimes abundant where it was found and probably has a population far in excess of 5000 individuals. This species is also found in other alpine areas (Deceit Peaks), as well as the Tin Range. No obvious threats were observed.

Aciphylla cartilaginea

Common across the whole Tin Range and in other alpine areas of southern Stewart Island, such as Mt Rakeahua. The population was estimated to be in excess of 10,000 individuals (possibly 100,000) and no obvious threats were observed.

Chionochloa lanea

Common across all alpine areas of southern Stewart Island. The population is likely to be far in excess of 10,000 individuals, possibly 100,000, scattered across several thousand hectares of habitat and no obvious threats were observed.

Celmisia polyvena

Abundant from Mt Rakeahua south, upland to alpine. The population is probably in excess of one million individuals. No obvious threats were observed.

Two plants of *Ranunculus viridis*, a few plants of *R. stylosus,* and a plant of *Ourisia modesta* were taken for cultivation at Dunedin Botanical Garden's fantastic new climate controlled alpine house. A full report on the information collected on our trip, including species lists, will be available for public reading in the near future. Please contact either Brian Rance (brance@doc.govt.nz) or me (rhindmarsh-walls@doc.govt.nz) if you wish to read it. Thanks need to go to the Department of Conservation Data Deficient fund for making this trip possible. Also my thanks to Brian, Cherie, Geoff, and Anna for their enthusiasm and company.

References

Wilson, HD., 1987: *Vegetation of Stewart Island New Zealand*. Supplement to the New Zealand Journal of Botany 1987. 131 pp. Wellington: DSIR, Science Information Publishing Centre.

de Lange PJ; Rolfe, JR; Champion, SP; Heenan, PB; Barkla, JA; Cameron, EK; Norton, DA; Hitchmough, RA. 2012: Conservation status of New Zealand indigenous vascular plants 2012. 70 p. Wellington, New Zealand Department of Conservation Threat Classification Series 3.

New Zealand Indigenous Flora Seed Bank (NZIFSB)

Monica Swadel (M.Swadel@massey.ac.nz) and Craig McGill (C.R.McGill@massey.ac.nz)

New Seed Bank Coordinator

As some of you may know, Jessica Schnell is on maternity leave until early October. While Jessica is on leave, Monica Swadel will be fulfilling the role of seed bank coordinator. Monica comes from a Plant Science background and completed a Bachelor of Science at Massey University majoring in Plant Science with a minor in Horticulture. Monica has a strong passion for plants including New Zealand's indigenous flora.

Since graduating, Monica has been involved with Greenpop, a not-for-profit organization that focusses on reforestation and urban greening projects in South Africa. Monica was based in Cape Town and her primary role as a volunteer was to support and provide plant propagation and plant husbandry training to the nursery coordinator at the Greenpop nursery.

Monica is excited to be a part of the team at the seed bank and looks forward to contributing to the conservation of our native flora.

Monica Swadel.

Volunteers busy cleaning seed at the NZIFSB

Seed collected by trained seed collectors is sent to NZIFSB to undergo cleaning and separation from debris before being banked. The Myrtaceae have been one of the four target groups for collection since the target groups were selected in 2013. The others are alpine species, the Fabaceae, and podocarps and trees of the forest. With the arrival of myrtle rust in New Zealand, priority has currently been given to

indigenous plant species from the Myrtaceae. The seedbank has several collections of Myrtaceae seed and numbers are expected to increase over the coming months. We are thankful to all the dedicated volunteers who collect seed and those who give their time to help process the seed before it is banked.

Gina Homs cleaning the At Risk—Declining rawiritoa (*Kunzea amathicola*) seed. Seed is largely cleaned by hand or using sieves or seed blowers. This is to minimise damage to the seeds during cleaning; damage that may reduce the storage life of the seed.

NZPCN Biennial Conference and John Child Workshop update

The following is a brief update of the conference organisation. Full details will be on the Network website as soon as field trip and workshop costs have been finalised. Registration will be online as for previous conferences.

Updated conference/workshop agenda

***Tuesday 14 November*:**	arrive Hokitika 17300: Welcome drinks
***Wednesday 15 November*:**	08.00: Powhiri; NZPCN Biennial Conference sessions 1, 2, 3, 4; 17.30: NZPCN AGM followed by NZPCN auction.
***Thursday 16 November*:**	0800: NZPCN Biennial Conference sessions 5, 6, 7, 8; 1800: Conference dinner at the Woodstock Hotel.
***Friday 17 November*:**	Workshops 1700: evening exhibition at the Regent Theatre.
***Saturday 18 November*:**	field trips.
***Sunday 19 November*:**	JC Bryophyte and Lichen Workshop.
***Monday 20 November*:**	JC Bryophyte and Lichen Workshop.
***Tuesday 21 November*:**	depart Hokitika.

Venues

The conference will be at the Regent Theatre, Hokitika. The John Child workshop will likely be at the RSA. Both the theatre and the RSA are centrally located in Hokitika.

Field trips

The 'length' refers to the distance travelled not length of the day. We have five options at present, but anticipate some attrition.

1. North (long)—Denniston Plateau and Punakaiki enroute (coal measure vegetation).
2. North (short)—Point Elizabeth track, Pororari and Truman Track (tropical west coast).
3. East (short)—Otira Valley and Cockayne Walk (forest and alpine).
4. South (short)—Mahinapua, Mananui, and Tree Tops walkway (forest, coast, canopy).
5. South (long)—Okarito and Franz Josef (freshwater and glacial).

Auction

We have received our first donations and welcome more offers. The proceeds will be added to the capital of our special funds, e.g., the David Given Scholarship fund.

Accommodation

Hokitika is a tourist town and conference participants are encouraged to book their accommodation early. Please contact Alex Fergus (email: afergus@doc.govt.nz) if you are interested in receiving a list of accommodation providers who have agreed to support the conference with some form of discount.

Flora of the Forgotten islands: Botanical expedition to the Snares, the Auckland Islands, and Campbell Island, 3–10 January, 2018

> "*Perhaps no group of islands on the surface of the globe, of the same limited extent and so perfectly isolated, can boast of three such beautiful plants, peculiar to their flora, as the* Pleurophyllum speciosum, Celmisia [Damnamenia] vernicosa, *and the subject of the foregoing description* [Bulbinella rossii]" – Joseph Hooker, Flora Antarctica, 1844.

This is an invitation to a floristic nirvana; a gardener's delight; a botanist's dream. An invitation to join a group of like-minded folks in discovering the plants of New Zealand's southernmost isles – the flora of our forgotten islands. Led by Dr Alex Fergus on behalf of Heritage Expeditions, our voyage will take in the Snares, the Auckland Islands and Campbell Island. At the heart of our journey is the search for Hooker's megaherbs, a suite of oversized, brightly-flowering forbs that include *Anisotome, Bulbinella, Pleurophyllum* and *Stilbocarpa* (*Azorella*). Using our knowledge of the subantarctic, we will make the most of all opportunities to experience the unique flora of the roaring forties and furious fifties. Our ability to undertake landings is subject to sea and weather conditions.

A special 10% discount is available to members of the Network and botanical societies for this expedition. If you have any questions regarding what we might see or would like more details regarding the itinerary then please contact the expedition leader, Alex Fergus, email: shipsbotanist@gmail.com

Alpine Botanical Survey, University of Lausanne

Daniela Cárdenas, Department of Ecology and Evolution, University of Lausanne (daniela.cardenasaraya@unil.ch)

I am writing to invite you to take a short survey to help in my study to understand the climatic requirements of "emblematic alpine plants". This project is led by Prof. Antoine Guisan at the University of Lausanne, Switzerland.

I would be very grateful if I could obtain some information about alpine plant species that could be present or absent in your garden or arboretum (the absence of a plant is also important information for our research). We will, of course, keep all those contributing to the questionnaire informed about our research. If you have any concerns about the research project or any question please do not hesitate to contact me.

I hope that some Network members will be able to help, as I consider input about New Zealand alpine plants of great interest. I will appreciate any responses to the questions in the survey. Please click the link below to answer the questionnaire:

https://surveymonkey.com/r/VVDYNJB

Please submit if possible before the end of May 2017.

Thank you very much for your assistance.

You can find more about the project in:

- BGCI News Archive, http://www.bgci.org/news-and-events/news/1398/
- Latest News, http://www.bgci.org/news-and-events/latest/

Rare plant sighting

Nigel Chadwick (nigelrchadwick@gmail.com)

Common on sand dunes at the high tide mark throughout the Pacific, beach morning glory, *Ipomoea pes-caprae* subsp. *braziliensis*, is classed as a rare native in New Zealand, found very occasionally on Northland beaches. Its seeds have adapted to survive in salt water and the plant itself tolerates sandy conditions and salt spray, needing only sufficient warmth and moisture to thrive. It is clearly at the very edge of its southern range in northern New Zealand. The few plants that have been found—previously on the west coast of Northland—remain fairly small and the species is very unlikely to become firmly established. This specimen was, unusually, found on an east Northland beach, a small, remote cove on the Whangaruru Peninsula, accessible only on foot. It was just surviving around the high tide mark but would be vulnerable to destruction from high tides or storm damage.

Ipomoea pes-caprae.

UPCOMING EVENTS

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

New Zealand Plant Conservation Network Biennial Conference

Conference: Tuesday 14 to Saturday 18 November. **Venue:** Regent Theatre, Hokitika. The conference will be followed by the John Child Bryophyte and Lichen workshop on Sunday 19 November to Tuesday 21 November.	**Registration:** will open soon.

Auckland Botanical Society

Meeting: Wednesday 7 June at 7.30 p.m. for a talk by Peter de Lange titled 'Kapiti Island' followed by the mid-winter book auction. **Venue:** Unitec Room 115-2017.	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz.
Field trip: Saturday 17 June to Okura Bush. Leader: Geoff Reid.	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz.

Auckland Botanic Gardens

Meeting: Saturday 3 June, all day: Matariki opening ceremony - Celebrate the opening of Matariki at the Gardens with traditional music and storytelling.	
Workshops: Saturdays in June and July; Matariki workshops orkshops include rongoa Maori (Maori medicinal plants), food preserving, traditional planting and more.	**See:** Eventbrite page for details.

Kaipatiki Project

Field Day: Saturday 17 June for a tree planting day at Paa Harakeke off Merrill Road. **Start:** 10.00 a.m. **Bring:** a spade and good footwear; refreshments provided.	**Register:** by email to admin@kaipatiki.org.nz
Field day: Saturday 24 June for Matariki planting with Ngati Whatua Orakei at Bastion Point. **Start:** 10.00 a.m. **Bring:** a spade and good footwear; refreshments provided.	**Register:** by email to admin@kaipatiki.org.nz
Field day: Saturday 1 July for a weeding day beside the Chelsea Pony Club off Eskdale Rd. **Start:** 10.00 a.m. **Bring:** a spade and good footwear; refreshments provided.	**Register:** by email to admin@kaipatiki.org.nz

Waikato Botanical Society

Field trip: Sunday June 18 to Lake Mangakaware, a Waipa District peat lake.	**Leader:** Susan Emmitt, email: susan.carrodus@gmail.com.

Rotorua Botanical Society

Field trip: Sunday 11 June to Maungaongaonga Scenic Reserve, near Waiotapu. **Meet:** the car park Rotorua at 8.30 a.m. or 9.00 a.m. at Benny Bee Tearooms, Waiotapu 27 km south of Rotorua. **Grade:** medium/hard.	**Leader:** Martin Pearce, ph: 07 3491929; email: mpearce21@xtra.co.nz.
Meeting: Monday 19 June at 6.00 p.m. for the AGM (wine, juice cheese and nibbles will be provided) followed by a talk by Paul Champion on threatened aquatic plant species.	**Venue:** DOC Rotorua Office, 99 Sala St, Rotorua, go in Scion (Forest Research) north entrance and turn left before the locked gates.
Field trip: Sunday 2 July to Waiotahi Scenic Reserve, Waiotahi Valley, Opotiki. **Meet:** the car park Rotorua at 8.00 a.m. or Waiotahi Hall at 9.30 a.m. **Grade:** medium.	**Leader:** Mike Butcher, ph: 07 3157160 or 0274 555 610; email: mikebutchernz@xtra.co.nz

Whanganui Museum Botanical Group

Meeting: Tuesday 6 June at 7.30 p.m. for 'Members' Evening'. Please bring items for 'show and tell' - plant specimens, book(s), photos, etc.	**Venue:** Museum's Davis Lecture Theatre

Wellington Botanical Society

Field trip: Saturday 3 June to Silversky Track, Crofton Downs. **Meet:** 9.30 a.m. at the end of Silverstream Rd.	**Leader:** Chris Moore, ph: 027 4313 789 or 04 479 3924; **deputy leader:** Richard Grasse ph: 04 976 2690.
Field trip: Saturday 17 June to Te Mārua Bush, Upper Hutt, for a work bee. **Meet:** at Te Mārua Bush at 9.30 a.m. (250 m north of Te Mārua Store and then left, off SH2 for 50 m, on Twin Lakes Rd, Kaitoke Regional Park). **Bring:** weeding and planting gear.	**Co-leaders:** Glennis Sheppard, ph: 04 526 7450; Sue Millar, ph: 04 526 7440.

Meeting: Monday 19 June at 7.30 p.m. for a talk by Dr Philippa Crisp on Greater Wellington's terrestrial ecology monitoring	**Venue:** Victoria University Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade; enter building off Kelburn Parade about 20 m below pedestrian overbridge.
Field trip: Saturday 1 July to Manawa Karioi, Island Bay. **Meet:** at 9.30 a.m. at Manawa Karioi information board next to Tapu te Ranga Marae's car park	**Co-leaders:** Paul Blaschke 04 389 8545 or 027 2462848; email: paul@blaschkerutherford.co.nz; and Sunita Singh, 04 387 9955 or 027 4052987.

Nelson Botanical Society

Field trip: Sunday 21 May to Upper Moutere remnants. Meet: at the Church steps at 8.00 a.m. Please register with the leader.	**Leader:** Don Pittham, ph: 03 545 1985.
Meeting: Monday 22 May at 7.30 for a talk by Uta Purcell titled 'Georgia: flora, mountain landscapes and a little culture.	**Venue:** Jaycee rooms, Founders' Park.
Field trip: Sunday 18 June to Maitai Caves. **Meet:** at Cathedral steps at 9.00 a.m. or at Maitai Dam car park. Please notify leader if you intend to come so you can be contacted in case of cancellation.	**Leader:** Elaine, ph: 021 256 9073; email: elaine3jems@gmail.com
Meeting: Monday 19 June 19 at 7.30 p.m. for a talk by Jan Clayton-Greene titled 'A region redesigned: South Marlborough flora's response to the Kaikoura earthquake.	**Venue:** Jaycee room Founders Park.

Canterbury Botanical Society

Meeting: Saturday 10 June for the AGM at 10.30 a.m. at St Ninian's Presbyterian Church Hall, 9 Puriri Street, Riccarton, followed by a talk by Trevor Thompson, QEII Trust representative for Wairarapa, titled 'Insights from a 25 year mission to increase mistletoe populations in the Wairarapa'. A shared lunch will follow the talk; please bring a small plate, either savoury or sweet.	**Contact:** Alice Shanks, ph: 03 337 1256, email: alice@caverock.net.nz.
Meeting: Monday 3 July at 7.30 p.m. for a talk by Lea de Nascimento, Landcare Research, about the Flora of the Canary Islands and her research. **Venue:** Upper Riccarton Library community meeting room, 71 Main South Road.	**Contact:** Alice Shanks, ph: 03 337 1256, email: alice@caverock.net.nz.

Otago Botanical Society

Field Trip: Saturday 10 June to Lower Taieri Gorge. **Meet:** Botany Department car park at 9.00 a.m.	**Contact:** John Barkla, ph: 03 476 3686.
Meeting: Wednesday 14 June at 5.20 p.m. for a talk by Allison Knight titled 'Lichens and luscious berries of Sweden, Finland and Lapland. **Venue:** the Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel. Use the main entrance of the Benham Building to get in and go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt as we have to hold the door open.	**Contact:** Robyn Bridges, ph: (03) 472 7330.