



# TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 157

**December 2016**

**Deadline for next issue:**  
Monday 16 January 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](mailto:events@nzpcn.org.nz)

### **Postal address:**

P.O. Box 16102,  
Wellington 6242,  
NEW ZEALAND

## **PLANT OF THE MONTH, p. 2**



*Wahlenbergia congesta*.  
Photo: Jessie Prebble.

## **Message from the President**

On behalf of the Network Council, I'd like to wish all our members and their families a safe and happy holiday season, a Merry Christmas and a happy New Year.

You will find our Council bios below along with the results of the Favourite Plant and Worst Weed poll—go Bartlett's rātā! It would be great to see more media leveraging off the poll to raise awareness and action around threatened plants such as Bartlett's rātā. You will also see an article about *Sonchus kirkii*, a plant I have recently had to remind people not to weed out.

For those of you taking advantage of the good weather to do some botanising, happy trails, I hope you make the most of it.

*Rewi Elliot*  
*President*

## **Network Council members**

### **Rewi Elliot**

After playing in the mud as my dad laboured in the vegetable plot, I eventually got interested in the green part of the garden. This led to leaving school early and studying horticulture. Eventually, I found myself at the Wellington Botanic Garden for a few years but feeling the urge to put myself in more debt I left the gardens to study Environmental Studies. Near the end of my studies, the manager's position at Otari Native Botanic Garden and Wilton's Bush Reserve opened and I was lucky enough to land it. If you're visiting Wellington, come and visit Otari- if you turn up at 10 a.m. you'll even get a tea or coffee. Currently, NZPCN President, my contact details are [rewi.elliott@wcc.govt.nz](mailto:rewi.elliott@wcc.govt.nz).

### **John Barkla**

I am a botanist with the Otago Conservancy of the Department of Conservation for many years before becoming a Partnerships Ranger in Coastal Otago. I have wide experience of plant conservation and habitat restoration from projects that span the Kermadec Islands to the Subantarctic. I am a member of the New Zealand plant threat listing panel (vascular plants) that periodically reviews the threat status of New Zealand's vascular plants. Outside work, I enjoy roaming the hills, photography, and exercising the black lab (preferably all at the same time).

### **Sarah Beadel**

Sarah is a Founding Director of Wildland Consultants Ltd and is a very keen botanist and ecologist who is passionate about working and exploring in the field throughout New Zealand, and overseas whenever she gets the opportunity. Sarah has prepared many ecological restoration plans and has often led or been involved with their implementation. When not botanising, Sarah is establishing a large native garden along with a large, productive vegetable garden that feeds family and friends.

## PLANT OF THE MONTH – *WAHLENBERGIA CONGESTA*



*Wahlenbergia congesta*. Photo: Jessie Prebble.

The plant of the month for December is *Wahlenbergia congesta*, one of 10 native *Wahlenbergia* species found in New Zealand. The species is adapted to exposed coastal habitats and has a high tolerance of salt spray. It can be found on coastal bluffs, ledges, gravel or sand beaches and damp coastal turf. It has a scattered distribution in the western South Island from coastal North-West Nelson to the Foveaux Strait. The plant forms short loose patches and is easily spotted when in flower because each large white flower is at least half the size of the leafy rosette from which it originates.

The species is somewhat similar in appearance to other rosulate species such as *W. albomarginata*, but cannot be confused with any of these because of its strictly coastal habitat preference. It seems to flower from late spring onwards through summer.

The species is endemic and is currently listed as At Risk—Naturally Uncommon because it has a widespread but very scattered distribution. In some parts of its range, it is probably threatened by exotic grass invasion, especially marram grass (*Ammophila arenaria*). It is also likely threatened by coastal development for farming and housing. The species is easily cultivated from seed or plant divisions and prefers to be kept in constantly damp sandy soil. It does well in partly shaded parts of rock gardens.

The genus *Wahlenbergia* is not endemic to the New Zealand region. It is a large, widespread genus with many species scattered all over the world, with the exception of North America. The genus was apparently named after [Göran Wahlenberg](#), a Swedish botanist who taught at [Uppsala University](#).

You can view the NZPCN website factsheet for *Wahlenbergia congesta* at: [http://www.nzpcn.org.nz/flora\\_details.aspx?ID=340](http://www.nzpcn.org.nz/flora_details.aspx?ID=340).

Mountain biking provides excellent botanical exploration opportunities in out-of-the way places. Sarah is currently Immediate Past President of the Network and has served on the Council since 2004. She is passionate about indigenous plants and ecological restoration and is the author of over 500 botanical reports, papers, and articles, including author or co- author of 17 protected natural area programme survey reports.

### Catherine Beard

I am an ecologist with a botanical bent working for the Department of Conservation. Although I've been based in the Waikato for many years, I have wandered far in pursuit of my interest in plants and the natural world and have had the privilege (so far) of botanising quite a few different islands and parts of five continents (including the dry valleys and coastlines of Antarctica). I'm intrigued by how natural systems work and maintain a strong interest in the interactions that occur between plants and animals and how they function in diverse environments. Outside work, I'm usually happily occupied

restoring the native habitat of my gully section, or building stuff, or working on improving my edible wilderness garden, or exploring new places by foot or bicycle – and when it is raining too heavily I am indoors enjoying the company of my furred, feathered or finned menagerie, and indulging in my passion for drawing.

### **Jesse Bythell**

I originally trained as a linguist but found myself transferring my interest from endangered languages to endangered plants when I moved from Christchurch to the deep south in 2006. I am currently the NZPCN webmaster and have interests in alpine flora, plant photography, botanical etymology, endurance horse riding and playing the banjo. You can contact me at: [jesse@biosis.co.nz](mailto:jesse@biosis.co.nz)

### **Shannel Courtney**

I'm a Technical Advisor with the Department of Conservation and have been based in Nelson since 1986 where I provide advice on all things plant-related, ecosystem management and restoration. I have an MSc in Plant Ecology and I have a strong interest in non-forest ecosystems including alpine, coastal and eastern dryland systems and those of limestone/marble and ultramafic geologies. My expertise includes planning, prioritising and co-ordinating threatened plant recovery work, threatened plant surveys, management and monitoring; ecological restoration; ecological assessments for natural heritage management; RMA cases; land purchases applications; plant identification and biogeography. I'm currently a member of the New Zealand plant threat listing panel.

### **Peter de Lange**

I am Principal Scientist with the Department of Conservation Terrestrial Ecosystems Group. A founding member of the New Zealand Plant Conservation Network, I am based in Auckland where I can be contacted through the Auckland office of the Department of Conservation. I have broad interests in plant biosystematics, biogeography and genetics, island floras, ethnobotany, lichens, insular rarity and threat classification systems. I chair the New Zealand indigenous vascular plant, hornwort and liverwort, and lichen threat listing panels and is the New Zealand member for the IUCN Lichen Specialist Group. I am Adjunct Professor of the University of Sassari, Sardegna; Fellow of the Linnean Society (London); Research Associate of the Auckland Museum, Field Museum (Chicago), University of Auckland, University of Canterbury, and Unitec, as well as an honorary lecturer at the University of Auckland. I am also on the editorial board of the *New Zealand Journal of Botany*, *Journal of Botany* and *PhytoKeys*. For the New Zealand Plant Conservation Network I prepare the Indigenous Vascular Plant Factsheets and advise on plant nomenclature and conservation issues.

### **Alex Fergus**

I live on the West Coast and work for Department of Conservation as a biodiversity planner in Hokitika, where I try to align our regional biodiversity work with national strategy. I try to spend most of my weekends tramping, kayaking or driving towards interesting plants, and usually spend my holidays guiding or leading Sub-Antarctic expeditions.

### **Rowan Hindmarsh-Walls**

I'm a botanist/ecologist who is interested in all aspects of the natural world. Currently, I am focussed on field botany, horticulture, geology, biodiversity monitoring, birds, and weed plant eradication. I'm especially interested in plant taxonomy and the role of geology and geological processes on the radiation of New Zealand plants. I work in the Biodiversity monitoring team, Department of Conservation, throughout the Otago and Southland districts

### **Melissa Hutchison**

Kia ora koutou. I developed a love of native plants and wild places growing up in the rugged Waitakere Ranges of West Auckland. After completing a BSc and MSc in Ecology at Massey University, and contracts with the Department of Conservation and Landcare Research, I travelled around Europe

and worked as an entomologist with a conservation trust in southern England. In 2003, I moved to Christchurch to complete a PhD at the University of Canterbury, which involved three years surveying plant communities on the West Coast. Towards the end of my PhD, I began working part-time as an ecologist for New Zealand Landcare Trust and then the Banks Peninsula Conservation Trust. This opened my eyes to the highly threatened ecosystems of lowland Canterbury and the important on-the-ground conservation work being carried out by NGOs to protect and restore the small fragments that remain. I now work as an ecologist for Wildland Consultants in Christchurch. I am a keen cyclist and love tramping and exploring the mountains of the South Island. I also enjoy classical and baroque music (clarinet and recorder) and learning other languages, in particular Spanish, Japanese and Te Reo Māori, which I have been studying for the last 3 years. I am also currently the webmaster for the Canterbury Botanical Society

### **Nicky Oliver-Smith**

I am a horticulturist and an ecologist, happiest when outdoors amongst plants, animals and the landscape. I have worked in the Wellington Botanic Garden as a collection curator, managed the Wellington City Council's Berhampore Nursery and completed an MSc in Ecological Restoration. I have recently returned to the Bay of Plenty and now work with landowners and the community, volunteer with conservation and community garden groups, and love exploring our local ranges, rivers and beaches. I have been the NZPCN treasurer since 2012.

### **Sarah Richardson**

I am a plant ecologist working at Landcare Research in Lincoln. I grew up in England on a rather restricted botanical diet of bluebell woodlands but have since spent the last 15 years totally captivated by the ecology, biogeography and botany of New Zealand's vegetation. My research interests include vegetation history, understanding plant species distributions using functional traits, biodiversity monitoring including the critical role of Citizen Science, and quantifying the resilience of natural communities to natural and human disturbances. Outside work, I am easily distracted by tramping, my vegetable garden, cooking beans, and enjoying film festivals.

### **Jeremy Rolfe**

I am a co-opted member representing the Department of Conservation. I have worked at DOC since it was established in 1987, transferring into it from the National Parks & Reserves Division of the Department of Lands & Survey where I worked as a natural heritage interpreter. At DOC I am a Technical Adviser Flora based in the National Office in Wellington, where I provide advice on threatened plant conservation. I also help to administer the NZ Threat Classification System that assesses the risk of extinction faced by New Zealand's terrestrial and aquatic biota.

### **Astrid van Meeuwen-Dijkgraaf.**

I am a co-opted committee member who helps look after the NZPCN Forum and Facebook page. I work for Wildland Consultants Ltd as a senior ecologist, help local community groups with restoration projects and have recently progressed from running 5 km park runs ([www.parkrun.co.nz](http://www.parkrun.co.nz)) to full marathons.

## **History repeats in the NZPCN Favourite Plant / Worst Weed poll.**

*Matt Ward (NZPCN Council Member) ([mattwardward@gmail.com](mailto:mattwardward@gmail.com))*

### **Favourite plant**

The 2016 New Zealand Conservation Network Favourite Plant and Worst Weed election has concluded. Having written the article for the winners of the poll in 2014 it seems very much like *deja vu* with this year's poll winners. This was not always going to be the case; early on in the poll a fierce battle for favourite plant was contested with a southern herb until the last couple of days. A nasty climber led the way for a long part of the worst weed race, until succumbing to the worthy return winner.

The winner of the 2016 Favourite Plant with 33.9% of the votes, is once again:

**Bartlett's rātā, rātā moehau—*Metrosideros bartlettii***

Bartlett's rātā is a species in trouble; the Network was created to highlight species in such a plight. This rare and iconic rātā species of the far north is very sparse and likely always has been. It was formally described relatively recently, in 1985, after recognition by Auckland teacher, John Bartlett. At up to 30 metres tall, this fantastic species is a dramatic site to see in bloom with its beautiful white flowers instead of the more commonly known red flowers of pohutukawa, northern and southern rātā. This particularly susceptible species is in decline because it is a favourite diet to the pestilent possum. Many remaining specimens are found on private land without possum control, which makes them very susceptible to attack. When reporting its status after the 2014 poll win, it was said to have only 25 known individuals left in the wild down from 32 in the early 1990s. There are now only 12; this makes it rarer than the Hector's dolphin! Any species getting this low in number begins to suffer from lack of genetic variability, creating a genetic bottle



*Metrosideros bartlettii*, towering above the vegetation, Kohuronaki, Northland. Photo: Philip Smith.

neck. It was suggested that numerous plants being grown around the country were taken from a large range of hosts. Unfortunately, it has been shown that all *ex-situ* specimens are of just two genotypes. This is not enough genetic variation to save it from extinction. The Department of Conservation is currently cultivating samples from the other known individuals to attempt its conservation. The gloomy story of this species really illustrates how much it needs our help, so we are jubilant it has been recognised as the 2016 Favourite Plant. Those who voted had this to say:



*Metrosideros bartlettii*, paper bark, Kohuronaki, Northland. Photo: Philip Smith.

John wrote: “*Rātā Moehau is stately and regal, singular and unusual—that nicely sums up its forest habitat as well.*”

Lisa wrote: “*This is a beautiful tree and sadly one that could well be on the brink in the wild but it didn't have to be like this.*

*I remember the forest at Unuwahao when there were around 30 trees but there are so few now due to the ravages of our furry friends.*”

Peter wrote: “*The ‘Doomsday Clock’ is ticking. Rātā Moehau is now down to 12 wild plants, with five effective genotypes (two in cultivation), and so is already functionally extinct. It will be a long haul to bring it back from the brink. Raising its profile will help—this tree needs all the friends it can get.*”

Philip wrote: “*It may have featured before as the favourite native plant, but the plight faced by *Metrosideros bartlettii* is serious and urgent. It's also extremely beautiful, has a fascinating story, and has the potential for widespread appeal. It is particularly important at this point in time that *M. bartlettii* receives as much attention as possible.*”



*Metrosideros bartlettii* in flower, in cultivation. Photo: Philip Smith

The 2016 second place getter led for a considerable time before being overcome by the winner. From what I could see as I followed the leader board through November, a classic North versus South battle was being waged, which eventually led to victory by the North. The runner up for this year's Favourite Plant vote appeared for the first time. A resident of environments poorly valued by local and regional councils, often earmarked for 'productive development', makes it threatened by man-made land use change as well as weedy plant infestation. It is now mostly found only in remnant habitat such as tussock grasslands, talus slopes and rocky outcrops. A prostrate rosette-forming composite herb easily overlooked because of its often cryptic appearance, this South Island resident, dryland sow thistle, *Sonchus novae-zelandiae*, with the endangered status of "Threatened—Nationally Vulnerable" garnered 26.9% of the vote to take second spot. Judging by the comments posted, this species is a representation of the ignorance of ecological balance. Here's what the voters thought:



*Sonchus novae-zelandiae* in flower Ahuriri Valley, Otago. Photo: John Barkla.

Alice wrote: *"This is a plant that knows how to express its individuality yet its future is a bit flat right now. It was wrenched from its elegant endemic genus Kirkianella to the ignominy of the worldwide sow thistle genus (Sonchus) all the while its grassland habitat is quietly being destroyed. It needs 'Plant of the Year' on its CV."*

John wrote: *"I like that it's difficult to predict where this plant will be found. It manages to persist in some pretty degraded drylands too - sometimes the only native in a sea of hawkweed."*

Colin wrote: *"It is the epitome of Aotearoa's subtle, richly textured beauty - not flashy and plastic but thoughtful and deep :-)."*

Jesse wrote: *An overlooked plant, whose habitat is being turned into a 'green desert' of rye grass and clover by irrigation and intensive land use. Its fate signifies what is wrong with how our dryland systems are managed (or mismanaged).*

In third place was a personal favourite of the author; it appeared in the top 10 for the first time. This species is in a plant family with a disproportionate percentage of members that are both rare and endangered, mostly because of their small size and habitat intolerance. Garnering 5.7% of the vote for 2016, was the "At Risk—Naturally Uncommon" orchid mauve fingers, *Caladenia bartlettii*. Like many New Zealand orchids, you have to be in the right place at the right time to have any chance to enjoy its natural beauty and intricacy. This orchid, like most of those in *Caladenia* has a flower only 20 mm across on a stem no more than 300 mm high. Though sharing the name Bartlett with this year's winning species, the orchid was named after Frank Bartlett, a gumland flora enthusiast from Silverdale who had many orchid species on his farm. Frank and John Bartlett are not related.



*Caladenia bartlettii*, a dazzling floral display, Porirua. Photo: Matt Ward.

Cara-Lisa wrote: *"Orchids are such an overlooked part of the NZ flora, if just one does well in plant of the year it would raise awareness of this amazing group of plants."*

*Caladenia in particular are so tiny, yet incredibly beautiful and intricate flowers. They are one of the most difficult orchids to spot and if more people knew about them it would help them realise how much more there is to see in our native forests apart from the birds and trees.”*

*Matt wrote: “I have just recently met this ‘At Risk - Naturally Uncommon’ species and it is gorgeous. These tiny plants are more often than not over-looked by scientists and the general public due to their seasonal appearance and display, yet when you have the chance to enjoy such splendour, it is truly breath taking. Most orchids appear in the most unlikely of habitats, enjoyment is all about timing.”*

*Bill wrote: “This is a stunning little orchid when one comes across a colony in full flower. it is not often seen but when it is it leaves a lasting impression.”*

This year’s top 10 Favourite Plants featured only one of the species from last year’s top 10, great to see that the voters are creative when polling. The only survivor from last year’s leader board, the iconic puriri, *Vitex lucens*, once again finished fourth place with 4.3% of the vote (see table).

### **Worst Weed**

The worst weed competition now in its fifth year also saw a battle for the title. Finally taking the top spot again and earning 21% of the vote, as in 2014, this species is a widespread and painful, and a much deserved winner. The winner of the 2016 Worst Weed as voted by you is:

#### **Veldt grass—*Ehrharta erecta***

This highly invasive and extremely successful pest was first recorded in Wellington in 1943. Since its arrival from South Africa, it has spread throughout the country. It has been recorded flowering every month of the year making it a prolific seeder. Its ability to propagate in low fertility areas makes it difficult to contain and has led to its spread into almost all environs of our country. This damned weed is very justified as winner of the 2014 Worst Weed. This weedy species has probably caused every gardener in New Zealand some graft to remove it at some stage. Here is what some of the voters had to say:

*Sarah wrote: “We need a biocontrol for this ‘green hell’ pronto!”*

*Julia wrote: Because it is ever expanding its range, particularly into the back country with trampers and people don’t recognise it as alien. It seeds even in shade and almost all year round.”*

*David wrote: “A curse bestowed to New Zealand in ‘bird seed’ imported without thought of bio-security in the 1960s. So at least now we have ‘bird seed’ enough to save our exotic birds for the generations to come. Sigh.”*

*Phil wrote: “For 10 years I have been constantly be pulling this fast growing weed out of my garden and my paths. It sprouts everywhere all the year round.”*



*Ehrharta erecta*, distinctive seed head. Photo: Jeremy Rolfe.

The New Zealand Plant Conservation Network thanks the hundreds of you motivated to vote in our annual Favourite Plant and Worst Weed poll. This year’s poll was a little unusual with the re-election of both the 2014 winners. Nonetheless, both are extremely worthy winners and deserve more attention. We hope that this recognition will help our unique flora gain exposure, recognition, and protection to

guard its wonderful and distinctive qualities. In November 2017, when you are voting again for your Favourite New Zealand Plant and Worst Weed, get your friends, family and colleagues to vote too, the more the merrier; don't forget to vote for an orchid next year.

<b>New Zealand's Top 10 Favourite Plants 2016</b>	<b>% of vote</b>	<b>New Zealand's Top 10 Worst Weeds 2016</b>	<b>% of vote</b>
1. Rātā moehau, Bartlett's rātā, <i>Metrosideros bartlettii</i>	33.9	1. Veldt grass, <i>Ehrharta erecta</i>	21.4
2. Dryland sow thistle, <i>Sonchus novae-zelandiae</i>	26.9	2. Aristea, <i>Aristea ecklonii</i>	18.3
3. Mauve fingers, <i>Caladenia bartlettii</i>	5.7	3. Old man's beard, <i>Clematis vitalba</i>	15.3
4. Puriri, <i>Vitex lucens</i>	4.3	4. Wandering Jew, <i>Tradescantia fluminensis</i>	9.2
5. Kohuhu tangihua, Surville Cliffs kohuhu, <i>Pittosporum serpentinum</i>	3.0	5. Climbing asparagus, <i>Asparagus scandens</i>	7.6
6. Kauri, <i>Agathis australis</i>	2.6	6. Lodgepole pine, <i>Pinus contorta</i>	4.6
7. Mountain neinei, grass or pineapple tree <i>Dracophyllum traversii</i>	2.3	7. Gorse, <i>Ulex europaeus</i>	4.6
8. Raupo-taranga, Poor Knights lily, <i>Xeronema callistemon</i> f. <i>bracteosa</i>	2.2	8. Moth plant, moth vine, <i>Araujia sericifera</i>	3.8
9. Taurepo, kaikaiatua, mata, matata, waiuatua, New Zealand gloxinia, <i>Rhabdothamnus solandri</i>	2.1	9. Darwin's barberry, <i>Berberis darwinii</i>	2.3
10. False Spaniard <i>Celmisia lyallii</i>	1.7	10. Climbing dock, <i>Rumex sagittatus</i>	1.5

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## ***Sonchus kirkii*: puha**

Jamie Hancox ([jhancox@northtec.ac.nz](mailto:jhancox@northtec.ac.nz))

This plant is one I noticed earlier this year in Motatau, Northland. Motatau is about 20 minutes away from Kawakawa, the home of the famous Hundertwasser toilets. We also all know Kawakawa as a popular rongoa plant.

In 2006, *Introduction to Plant Life in New Zealand* was presented to a workshop at Kevin Prime's property Kaitoki in Motatau. Kevin is a notable Ngati Hine Kaumatua. He is best known for protecting the kukupa/kereru. *Introduction to Plant Life in New Zealand* was a joint venture between Northtec and NZPCN. I had the pleasure and privilege of meeting the late John Sawyer at this event.

When I saw this colony of mostly stunted nutrient deficient roadside weeds I noticed a seed head that looked familiar. Hmmm, looks like puha to me. The possibility that it was a native puha crossed my mind. I googled *Sonchus* NZ and concluded that it was *Sonchus kirkii*. I hope it is, because that's what I have been telling everyone. After a re-visit to collect some seeds, they were hung in a shed in a bag with some *Gahnia*. A few weeks later, I found the bag lying on the path. The *Gahnia* was germinating and what was left of the puha was wet and soggy. The contents were spread over potting mix and left in the Northtec nursery. A week later, the tray was covered with little seedlings.

I work as a sustainability development and horticulture tutor at Northtec. We have a collection of Maori garden plants: varieties of corn, pre European kumara, riwai Maori (Maori potatoes), ruruhou or nani a mustard type vegetable, hue or gourds, taro and, hopefully, now real puha. We decided to plant and grow the seedlings in our raised beds mainly for the seed.



Planted in the raised bed.



Looking lush like a lettuce.



Starting to look good to eat



Noticing puha in other locations: Karangahake Gorge



Motutere on the edge of Lake Taupo (note the pumice)



Paparoa in Tai Tokerau/Northland

We thought it would be a good idea to try it. So we did and it was tino reka, very nice. Most of the Maori students and staff have now tried it. It grew back quickly after a hard pick. It grew large and lush in the beds that had been prepared for vegetables.



Kara Komene harvesting.



Will have seeds soon.

### Network member wins restoration award

At the 2016 Ecological Society conference in Hamilton in November, Network member, Di Carter was given one of the inaugural Individual Excellence awards by the Australasian branch of the Society for Ecological Restoration. Di works as a park ranger for Christchurch City Council. Her responsibilities cover the Port Hills where she has worked since 1999. She was nominated for the award by the Canterbury Botanical Society in recognition of the successful re-vegetation work on the Port Hills that she has planned and managed for the past 16 years. The nomination says that Di works with a passion and a vision “way beyond her job description”. She has also organised volunteers, other rangers, and contractors who have planted trees and plants over 78 hectares.

Congratulations, Di.

## Report on myrtle rust workshop

Karin Van der Walt, Conservation and Science Advisor, Wellington Botanic Garden ([karin.vanderwalt@wcc.govt.nz](mailto:karin.vanderwalt@wcc.govt.nz))

The workshop, organized by the Ministry of Primary Industries, Better Border Biosecurity (B3) and Australia's Plant Biosecurity CRC was held in Wellington 6–7 December, 2016. The aim of the workshop was to bring together key stakeholders to determine how New Zealand could prepare for possible invasions by myrtle rust (*Puccinia psidii*) and *Ceratocystis fimbriata* (Rapid 'Ōhi'a Death).

Myrtle rust was first recorded in Australia in April 2010, north of Sydney, and has subsequently spread all along the east coast with latest recordings (2015) from Melville Island and Tasmania. The impact of myrtle rust on primary industry in Australia was minimal but the effect on native species ranged from mild to severe with total recruitment failure recorded in many threatened species.

Researchers, conservationists and primary industry representatives from Australia shared valuable lessons learned which include better response time and action, testing species' susceptibility, which can be used to set conservation and research priorities, ensuring large, genetically representative germplasm collections of all Myrtaceae species and effective and coordinated surveillance throughout New Zealand.

Dr Lisa Keith gave a presentation via skype on the devastation of another Myrtaceae species, *Metrosideros polymorpha* caused by *Ceratocystis fimbriata* (Rapid 'Ōhi'a Death) (see *Trilepidea* 155, pp. 12–13 for more information). *Ceratocystis fimbriata* spreads alarmingly fast with over 50,000 acres of 'ōhi'a forest affected by it in 2016 compared with 2,250 acres in 2012.

The last session of the workshop was dedicated to the establishment of a myrtle rust working group that includes scientists, researchers, conservationists, Maori representatives and other key stakeholders. The group will convene in early 2017 to coordinate surveillance, research and germplasm collection. Further information on myrtle rust can be found at: <http://www.biosecurity.govt.nz/pests/guava-rust>

## New Zealand Indigenous Flora Seed Bank (NZIFSB)

Jessica Schnell ([J.L.Schnell@massey.ac.nz](mailto:J.L.Schnell@massey.ac.nz)) and Craig McGill ([C.R.McGill@massey.ac.nz](mailto:C.R.McGill@massey.ac.nz))

### Wellington seed bank workshop 5-6 December 2016

The last seed bank workshop for 2016 took place on 5-6 December. The first day, when theoretical aspects of seed collecting were covered, was held at the Leonard Cockayne Centre, Otari Native Botanic Garden. The centre was formerly the Otari Curator's house but has been recently renovated into a large open-lit space for meetings (also ideal for the cut test especially on *Helichrysum lanceolatum* and *Celmisia semicordata* ssp. *aurigans*).

The second seed collecting day was held at Otari Native Botanic Garden and Wilton's Bush Reserve. Thirteen participants from a range of backgrounds participated in the training. The participants were: from Berhampore Nursery (Valissa Williamson, Tom Mayo and Louis Matakino) and Wellington City Council (Anita Benbrook), a Te Papa research scientist (Heidi Meudt), a Kew diploma student (Mathew Rees), a student (Ali McDonald), a friend of the Wellington Botanic Garden (Abby Sucsy), two French interns (Héloïse Colmet-Cartraud and Anaïs Lossignol), a staff member from Greater Wellington Regional Council (Carolyn Anderson), a keen tramper, and former Department of Conservation worker, David Blakiston, and a PhD student (Surya Diantina). The practical day involved exploring the red trail and the yellow trail in Otari Native



The Wellington seedbank workshop participants at Otari Native Botanic Garden and Wilton's Bush Reserve. Photo: C. McGill.

Botanic Garden and Wilton's Bush Reserve. It was a good day even with the wind battering us! A collection of *Brachyglottis repanda* was made bringing to 91 the number of species collected in 2016. Thanks to Rewi Elliot (Manager of Otari Native Botanic Garden and Wilton's Bush Reserve) for leading the expedition and for encouraging our curiosity to look at seeds and insects under the microscope afterwards!

A big thanks to all those who have contributed to the seed bank this year as collectors, volunteers and supporters in various ways. As mentioned in the November *Trilepidea*, 2016 has been a very productive year for the seed bank with over 90 species collected. With your help, we will be able to make 2017 just as successful. In the meantime, may you all have a very happy and safe Christmas and New Year break.



Rangiora (*Brachyglottis repanda*). Photo: H. Colmet-Cartraud.



Left: Anaïs Lossignol carrying out the cut test of kowhai seeds. Photo: H. Colmet-Cartraud



The Wellington workshop team out in the beautiful Otari Native Botanic Garden and Wilton's Bush reserve. Photo: H. Colmet-Cartraud.

## New Zealand tree project

The New Zealand Tree Project is a blend of adventure, history, conservation and art. From 16 December 2016 to 29 January 2017 it will be at Bottle Creek Gallery, Pātaka Art+Museum, corner Norrie and Parumoana Streets, Porirua.

A team of photographers, climbers and scientists spent many hours in the boughs of giant rimu and kahikatea trees to capture the wonder of the forest from new perspectives. In the dense temperate rainforest of Pureora, they were privileged to experience the hidden world of the forest canopy.

Their canopy exploration revealed many incredible plants, insects and birds that live their entire lives far above the ground. Beautiful native orchids festooned every branch with aromatic flowers and raucous kākā screeched at dawn and dusk. The teams are proud to share this forest magic through the first ever full portrait of a rimu tree and an exquisite collection of photographs and footage. For a sample of the exhibition go to [www.nztreeproject.com](http://www.nztreeproject.com), and be sure to check out the documentary 'On the Shoulders of Giants' on the website.

## Network biennial conference

This is a preliminary notice that the Network biennial conference will be combined with the JC Child bryophyte workshop. The combined event will be held in Hokitika starting about 14 November. The theme is 'Back to Basics; Core Botanical Themes'. Full details will be announced in a later newsletter. A call for Abstracts will come in April.

## Postgraduate scholarship in plant evolutionary biology

A postgraduate scholarship in plant evolutionary biology is available at University of Waikato to work on "Dating the appearance of the divaricate growth form in the New Zealand flora". The topic is available as either an MSc or a PhD and the scholarship covers stipend and fees. Overseas students may apply for the PhD scholarship; the MSc scholarship is open only to New Zealand students. The student will work with an interdisciplinary supervisory team including Chris Lusk, University of Waikato, and Rob Smissen, Landcare Research (Lincoln). The laboratory work will be carried out at Lincoln. This thesis topic forms an important part of a 3-year Marsden project recently funded by the Royal Society of New Zealand.

A knowledge of evolutionary biology, molecular biology, plant genetics, taxonomy and systematics, statistical modelling, and bioinformatics would all be advantageous. The successful candidate will have excellent verbal and written English skills, as well as good organizational and communication skills. You will be able to work independently, enjoy new challenges and take pride in your own work. Please contact Chris Lusk, ([chris.lusk@waikato.ac.nz](mailto:chris.lusk@waikato.ac.nz)) or Rob Smissen ([smissenr@landcareresearch.co.nz](mailto:smissenr@landcareresearch.co.nz)).

## 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](mailto:events@nzpcn.org.nz)):

### Auckland Botanical Society

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**Field trip:** Friday 27 to Monday 30 January for the Auckland Anniversary Weekend camp at Pukeiti Forest, Northland.

**Leader:** Geoff Davidson.  
**Contact:** Maureen Young, email: [youngmaureen@xtra.co.nz](mailto:youngmaureen@xtra.co.nz).

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### Waikato Botanical Society

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**Field trip:** Saturday 28 to Monday 30 January for the Auckland Anniversary Weekend trip to Whareorino Revisited (combined with the Rotorua Botanical Society).

**Leader:** Thomas Emmitt,  
ph: 07 878 1050;  
email: [temmitt@doc.govt.nz](mailto:temmitt@doc.govt.nz)

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### Rotorua Botanical Society

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**Field trip:** Saturday 28 to Monday 30 January for the Auckland Anniversary Weekend trip to Whareorino Revisited (combined with Waikato Botanical Society). **Meet:** corner of Fraser Smith Road and Manganui Road, Awakino on Saturday 11.00 a.m. Grade: medium-hard. **Accommodation:** tents and shearers quarters. Bring: camping things good boots, wet weather gear.

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**Leader:** Thomas Emmitt (WBS),  
ph: 07 878 1050 (wk), 07 280 7142 (hm), 027 5405762 (mob), email: [temmitt@doc.govt.nz](mailto:temmitt@doc.govt.nz).

## Wellington Botanical Society

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**Field trip:** Wednesday 11 to Wednesday 18 January 2017 for the Summer Camp to North-West Nelson in a DOC reserve between Kahurangi National Park and Tai Tapu Marine Reserve. Base camp: "The Outpost", Mangarakau, sleeps 28 indoors and has plenty of camping space; approximately 5 hours drive from Picton, one hour west of Collingwood. Full details and booking form at <http://theoutpost.kiwi>.

**Leader and Contact:** Chris Moore, booking essential, ph: 04 479 3924, or 027 4313 789; email: [moore.c@xtra.co.nz](mailto:moore.c@xtra.co.nz)

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## Nelson Botanical Society

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**Field trip:** Sunday 15 January 2017 to Mt Murchison. Meet: at the Church steps at 8.00 a.m.

**Register with the leader before Friday 13 Jan:** Chris Ecroyd, ph: 03 544 7038, email: [candjecroyd@gmail.com](mailto:candjecroyd@gmail.com)

**Field trip:** Friday 27 to Monday 30 January for the Anniversary Weekend camp in Arthur's Pass.

**Register:** with the organiser, David Grinsted, by 13 January, ph: 03 542 4384. **Leader:** Shannel Courtney.

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## University of Canterbury summer course

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**Practical Field Botany:** an intensive, short summer course designed to meet the need for training in the collection, preparation, and identification of botanical specimens. **Venue:** University of Canterbury Cass Mountain Research Area, Canterbury. **Dates:** 19 – 27 January 2017.

This course will be of interest to amateur botanists, members of the workforce (e.g., Crown Research Institutes, Department of Conservation, local and regional councils, botanic gardens, horticulturists and teachers) and biology students who need to acquire or upgrade taxonomic skills and are interested in field ecology, conservation, biodiversity and biosystematics. The course is targeted at participants with various entry levels: from students with a limited plant knowledge to experienced career professionals. **Enrolment:** started 4 October 2017.

**Information:** Dr Pieter Pelser, email: [pieter.pelser@canterbury.ac.nz](mailto:pieter.pelser@canterbury.ac.nz); ph: 03 364 2987, ext 45605.

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## Otago Botanical Society

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**Field trip:** Saturday 4 February to Herbert Forest. **Meet:** Botany Department car park at 8.00 a.m.

**Contact:** John Steel, ph: 021 2133 170, email: [john.steel@otago.ac.nz](mailto:john.steel@otago.ac.nz)

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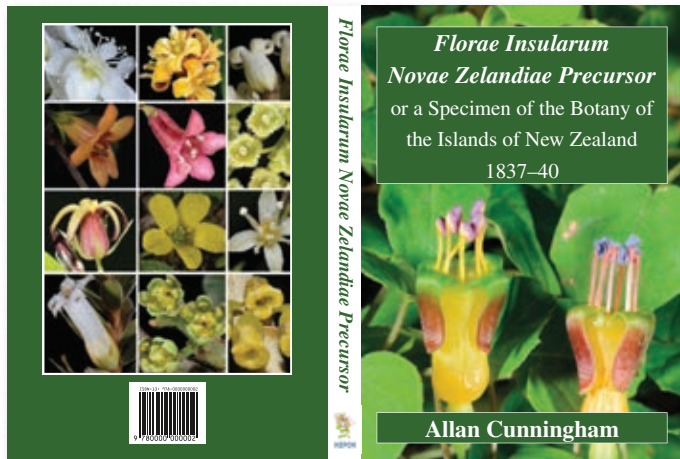
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