NEW ZEALAND PLANT CONSERVATION NETWORK

TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 131

October 2014

Deadline for next issue: Friday 14 November 2014

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**

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Wellington 6242,
NEW ZEALAND

PLANT OF THE MONTH, p. 2

Celmisia dallii.
Photo: Gillian Crowcroft.

President's Report to the NZPCN AGM 2014

Nga mihi ki a koutou katoa. Welcome to the 11th AGM of the New Zealand Plant Conservation Network. It has been another busy and fruitful year for the Network. It is great to see the good turnout tonight, especially from such a diverse range of backgrounds and interests. We would like to thank the Wellington City Council for sponsoring the venue tonight. Thank you all for coming, and I hope you enjoy the special broadcast of 'The Mysterious Secrets of Uncle Bertie's Botanarium' later this evening.

First, I'd like to give heartfelt thanks to my fellow Council members who have all helped with the various events and activities the Network has been involved with over the last year, including the management and continuing development of the website, and early planning for the 2015 Network conference, which is to be held in Dunedin the last weekend of October 2015. All Council members and the three coopted members perform valuable roles, without which the Network would not function to the standard it does. To mention a few, Jesse has really stepped up to the mark and taken over the Webmaster role. In May this year, four of us had a half-day web meeting where we worked through a number of issues and subsequently there have been several improvements to the way the website operates and its functionality. In addition, the logo has been updated. Rewi, as Secretary, and Nicky, as Treasurer, are invaluable. Jeremy Rolfe is contributing at Council meetings as a coopted member representing DOC. Jeremy has been heavily involved with the Network since its inception, and it is excellent having his contribution at the Council meetings. Peter de Lange continues work on many fronts, including keeping the species names up-dated to the latest scientific publications. Melissa has done an excellent job with the awards, and Matt and Astrid with the Forum, and it goes on—a huge amount of work is done behind the scenes.

Two long standing committee members are stepping down this year: Susan Wiser, who has been on the committee since 2009 and has been very helpful in many capacities, particularly in working together with Landcare; and Philippa Crisp, who has been on the committee since 2004 and a very active member of Council often organising the AGM, helping to organise several conferences and the Marae courses, and was President for three years. Unfortunately, Philippa can't be here tonight as she is overseas, however, the Council presented her with a *Trilepedia* print at our conference last year in recognition of her long service to the Network. We will miss both Susan's and Philippa's inputs.

The Network is in a very healthy state. Membership continues to grow, with a 4% increase over the last 11 months, a total of 32 new members. Visitation to the website is large, with approximately 170,000 sessions over the last year. The average session lasts about four minutes, with an average of between 4 and 5 pages viewed in each session. Most of our web visitors are from New Zealand (*c.*80%), with the remainder widely spread, although the US, Australia, and the United Kingdom each contribute

PLANT OF THE MONTH – *CELMISIA DALLII*

Celmisia dallii. Photo: Gillian Crowcroft.

Plant of the month for November is *Celmisia dallii*, Dall's mountain daisy. This is a very handsome *Celmisia*, with pale tomentum on the underside of the leaf and green on top, which is slightly sticky to the touch. It is relatively slow growing and is considered hard to maintain in cultivation, however, it makes a great addition to any rock garden.

It is found only in the South Island, confined to the mountains of Western Nelson and as far south as the Paparoa Ranges. Plants are most commonly found in sub-alpine grasslands and herb fields mainly on calcareous rocks and soils. It was named in honour of Mr J. Dall, an early explorer and collector in Nelson.

Though similar to *C. hieraciifolia* and *C. holosericea*, it can be distinguished from them by its much larger overall size and scapes that bear leaf-like bracts. The Network factsheet for *Celmisia dallii* can be found at: http://www.nzpcn.org.nz/flora_details.aspx?ID=2083

*c.*3%. There are 7,594 species listed on the website, 4,976 indigenous species (including 2,459 vascular taxa) and 2,618 exotic species. Of the indigenous vascular species, there are currently photos loaded for 2,329 species, and for *c.*1,659 species the fact sheets are completed; there are brief descriptions for a further 234 species. We are exploring efficient options for populating the remaining 574 fact sheets for which there is neither a detailed nor a brief description.

We have continued with our various annual activities, such as New Zealand's Favourite Native Plant, and also our prestigious Annual Awards, which will be presented at the end of this meeting. Development of the tree and shrub Smart Phone app is continuing and it will be launched within the next few months.

Earlier this year we set up a Submissions Subcommittee. The purpose of this subcommittee is so that any person on the subcommittee can front issues that the Council wishes to address on behalf of the Council and NZPCN. Following this, the Council made a submission to the Minister of Conservation on the importance of establishing a Drylands Park to protect the extremely high conservation and natural heritage values of the Mackenzie Basin.

We intend to continue to pursue effective legislation for plant protection.

The Network has a new major sponsor—Coastlands Plant Nursery Ltd. Good sponsorship is key to the ongoing development and maintenance of the website and we are very pleased to welcome Coastlands as a major sponsor.

Rewi is to represent the Network at the 10th Australasia Plant Conservation Conference in Tasmania early next month.

The New Zealand indigenous flora seed bank is progressing well. One year on from appointment of the seed bank coordinator, good progress has been made in the key areas of collector training and collecting, processing and banking seed. This year there have been four training workshops for seed collectors bringing the total number of trained collectors in NZ to 66 (this includes the 30 or so who

trained last year at the conference). There have been seven collecting expeditions this year and 31 species have been seed banked, including seven nationally threatened or at risk species.

The Network funded the publication of Peter de Lange's paper on *Kunzea* so that it would be freely available to all to download. In return for this funding, Peter undertook to update the attributions on the fact sheets.

The Network supported Brian Molloy's nomination for the Allan Mere Award, which was successful, and the Council also continues to provide representation on the Loder Cup Committee, which is a role that I undertake.

The Network has added $1,700 to the Plant Conservation Endowment Fund this year, which now stands at over $13,000. The David Given Trust has almost reached $29,000 and the Network will again award a study grant from this Trust in the next few months.

The Council met today to discuss initiatives for the next year and we are all looking forward to another stimulating and productive year.

Sarah Beadel
President
sarah@wildlands.co.nz
14 October 2014

Doodia and *Blechnum* ferns—how are they related?

Leon Perrie, Te Papa (leon.perrie@tepapa.govt.nz)

Researchers from Te Papa and the University of Melbourne have published an investigation of the Blechnaceae ferns. We used genetic analyses to examine how the family's species are related to one another. Amongst our findings was strong support for the previous transfer of species in *Doodia* to *Blechnum*. In their 'family-tree', *Doodia* is deeply nested within a group of species traditionally referred to *Blechnum*.

Blechnum parrisiae formerly *Doodia australis*. Photo: Jeremy Rolfe.

There are several options for dealing with this new awareness that the taxonomic classification does not reflect evolutionary relationships:

- Do nothing, leaving the discrepancy in place.
- Divide *Blechnum* into multiple segregates, one of which is *Doodia*.
- Move the species that were in *Doodia* into *Blechnum*.

Our preference is for the third option, because it gives a taxonomic classification that accurately depicts evolutionary relationships with the least number of name changes. More details and discussion, including the correct names in Blechnum for New Zealand's species that were in Doodia, can be found at this blog post: http://blog.tepapa.govt.nz/2014/09/17/doodia-rasp-ferns-become-blechnum-hard-ferns/

Part of this study involved considering the morphological variation in the Blechnaceae, and particularly in *Blechnum*. The *Blechnum* species we have in New Zealand give us a very limited view of the genus's global morphological diversity. For instance, dimorphic fronds (different-looking sterile and fertile fronds) make it easy to recognise a *Blechnum* in the context of New Zealand's ferns. But did you know that many overseas *Blechnum* species have monomorphic fronds?

NZPCN Award Winners 2014

As in previous years, this year's Plant Conservation Network awards span the full breadth of activity required to protect New Zealand's native plants. The 2014 award winners are:

Individual involved in plant conservation: Ted Lines (Oku Reserve Group)

School Plant Conservation project: Buller High School (Westport)

Community Plant Conservation Project: Otatara Landcare Group (Invercargill)

Plant Nursery involved in Plant Conservation: Forest and Bird Wellington Branch nursery, Highbury

Local Authority Protecting Native Plant Life: Timaru District Council

Lifetime Achievement Award: Rob McGowan (Tauranga)

Individual involved in plant conservation: Ted Lines (Oku Reserve Group

Ted Lines receives the Individual award from NZPCN President Sarah Beadel.

Over the last 12 years, Ted Lines has been a dedicated and tireless leader of the Oku Reserve Group, which has undertaken the restoration of Oku Street Reserve in Wellington. The reserve is located on a ridge overlooking Cook Strait, which forms the North Island's southern-most section of the Te Araroa walkway. The Oku Reserve Group is a community volunteer group set up in 2002, after community pressure saved the 8 ha reserve from being levelled for a housing development. The group comprises about 50 volunteers, mostly from Island Bay, with a core group of about a dozen members. Virtually from the start, Ted assumed leadership of the group, overseeing the planting, pest and weeding programmes, as well as doing a lot of the work himself, including transforming one of the gullies from blackberry, Cape Ivy and old man's beard on his own, and spending many hours carrying water up to plants in times of drought.

Ted is a retired policeman who doesn't come from a plant conservation background. Nevertheless, over the last 12 years, Ted has gained and passed on a tremendous amount of knowledge about plant conservation, cultivation, and restoration. Ted's roles include organising the regular community weeding, planting and maintenance days, and coordinating with nurseries and the Wellington City and Regional Councils to supply the plants, and the councils' pest and weed teams to clear the bigger areas of invasive weeds and oversee trapping in the reserve. Ted has also managed to engage a number of corporate sponsors, including the Honda Tree Fund, ANZ Bank and Project Crimson.

Oku Reserve occurs in an extremely harsh environment, with salt-laden southerly winds regularly reaching 100 km/h, and gale force north-westerly winds, which can dry the moisture out of the soil in a matter of days. Many areas of the reserve have had to be planted more than once, because of drought or plant stocks that weren't up to the harshness of the environment. Over 20,000 plants have now been planted in the reserve.

To keep an informal volunteer group active and engaged for over 12 years, especially when working in difficult conditions, requires some serious leadership skills. Under Ted's leadership, the Oku Reserve Group has successfully transformed a steep, rocky, weed-infested headland into a valued community asset and thriving native coastal plant community. This includes a number of species that are locally or nationally threatened such as *Aciphylla squarrosa, Euphorbia glauca, Melicytus obovatus, Melicytus crassifolius, Sophora molloyi,* and *Muehlenbeckia astonii*. Birdlife has also increased in the area, and tui, kingfishers, silvereyes, and even a resident morepork/ruru now live and breed in the reserve.

The outstanding achievements of the Oku Reserve Group in such a harsh environment are due in large part to Ted's excellent leadership skills, knowledge, drive, and commitment, and Ted is a thoroughly deserving recipient of the NZPCN's Individual Award for 2014.

School Plant Conservation project: Buller High School (Westport)

Buller High School has been involved in a native restoration project at Cape Foulwind for the last 16 years. Students and staff at the school have worked closely with the Department of Conservation committing many hours to this project.

Under the leadership of Janet Pottinger, the area has been transformed from grazed exotic pasture into an amazing native walkway. Many thousands of flaxes and other native species have been planted, which has enhanced the natural environment for the benefit of local wildlife as well as visitors to the popular walkway.

Students have also benefited greatly from this experience and have gained a better understanding of the natural environment, which will carry them well into the future. The hard work and dedication of students and staff to such a long-term project is highly deserving of recognition with this year's NZPCN School Plant Conservation Project award.

Evelyn Hewlett receives the award for the School Plant Conservation project on behalf of Buller High School.

Community Plant Conservation Project: Otatara Landcare Group (Invercargill)

Otatara Landcare Group is a community volunteer group that has been involved in the restoration of Bushy Point Reserve, Otatara, Invercargill, for the last 15 years. The Otatara-Sandy Point area contains the best remaining example of coastal totara and totara-matai sand dune forest in New Zealand. Bushy Point Reserve comprises an intact sequence of vegetation communities from the estuary edge through lowland podocarp-broadleaf forest to the nationally-rare totara dune forest and, in 2008 the reserve was included in the Ramsar registered Awarua Wetland complex.

The Otatara Landcare Group has a 30 year lease from the Department of Conservation to manage and restore the 14 ha reserve. Volunteers come from across the region for planting days, some even cross from Stewart Island. Over 280 people turned up at a recent planting day.

Since 2000, the Group has some impressive achievements:

- Approximately 25,000 eco-sourced native trees have been planted.
- Over 3 km of walking tracks have been maintained.
- A pond has been created to provide habitat for wetland species.
- Over 10,000 volunteer hours have been recorded.

Carol West receives the Community Plant Conservation Project award on behalf of the Otatara Landcare Group.

The group has been supported by the Living Legends Conservation Trust and been awarded funding for the next three years, in recognition of the gains the group is making. Sustainable Coastlands and the Southland Community Nursery (previous NZPCN Plant Conservation Award winners) also support the Otatara Landcare Group in its efforts. This is a long-term project that requires determination and good management to see it through; the Otatara Landcare Group has shown an ongoing commitment to restore the vegetation and reduce the pests and weeds in this reserve.

Otatara Landcare Group has clearly made an outstanding contribution towards restoration of Bushy Point Reserve; we are pleased to recognise their achievements with the Community Plant Conservation Award for 2014.

Plant Nursery involved in Plant Conservation: Forest and Bird Wellington Branch nursery, Highbury

The Forest and Bird Nursery at Highbury is a volunteer-run nursery producing approximately 12,000 eco-sourced native plants annually. The plants are donated to community groups and schools that are undertaking worthy native restoration projects and show an ongoing commitment to look after the plants.

Chris Streatfield of Forest & Bird Wellington Branch receives the award for a plant nursery involved in plant conservation.

The nursery began as a backyard operation about 1992 but has steadily increased in size over the years and now occupies a series of shade houses next to Zealandia Sanctuary at Highbury. Production was initially based around providing eco-sourced plants for Zealandia (about 7000 plants annually). However, over time, the focus has moved out of the immediate area and the nursery now supports numerous community groups and Forest & Bird's own restoration projects throughout the wider Wellington area. Production at the nursery has gradually increased over the years, ably run by Chris Streatfield and his group of volunteer helpers. Seeds or cuttings are collected by a dedicated group of workers, mostly lead by Gary James. Seed is collected annually from targeted areas and good records are kept of where seeds are collected, so plants leaving the nursery can be tracked back to where the seed was collected.

The focus of the nursery has been on growing rare and threatened plants of the Wellington region to help restore what has been lost. These include podocarps and other forest trees, as well as locally uncommon plants such as matagouri (*Discaria toumatou*). Though not endangered in others parts of the country, in Wellington, matagouri is reduced to a few unhealthy specimens left in the wild. Thanks to the dedication of volunteers at the nursery, we now have many more matagouri growing back in the wild. Chris is also experimenting with methods of propagating many other difficult or slow-growing species, such as milk tree (*Streblus*), which has limited seed production in the Wellington region.

The nursery provides many community functions, helping to support schools and community greening groups, and providing advice to Wellington residents on native plants. The volunteers at the Highbury nursery have shown their impressive knowledge, skills and commitment, and have made an outstanding contribution to native plant conservation in the Wellington region.

Local Authority Protecting Native Plant Life: Timaru District Council

The Timaru District Council has done a fantastic job of restoring native sand dune plants at Caroline Bay. With the help of volunteers from the community, the council has virtually eradicated marram from the site and replaced it with a variety of native plant species such as pingao, spinifex, and *Euphorbia glauca*, which are rare both locally and nationally. The council has also done an excellent job of dissuading the public from trampling the new plantings with fences, interpretation signs and warning notices. Since the restoration work was undertaken, there have been records of blue penguin nesting in the area, which is probably attributable to both the plantings themselves and the ongoing pest control measures that have been initiated since the restoration took place.

In addition to Caroline Bay, the council has undertaken a major restoration project at Otipua Beach and the associated Saltwater Creek lagoon margin, where several thousand plants of over 30 native species have been planted over the past six years. The council has also begun efforts to protect and enhance native flora and fauna at Pit Road Reserve, which is an important dry plains grassland remnant surrounding a former gravel pit. Restoration work, thus far, has included the removal of young planted pine trees, enhancement of lizard habitat (provision of stone piles), and planting with appropriate native species. Sheep-grazing is carried out on half of the reserve and, in future, the council plans to upgrade the perimeter fence to exclude rabbits and hares.

Restoration of such highly modified dryland habitats is a difficult task, and the council is to be commended for its important contribution to native plant conservation in the district.

Lifetime Achievement – NZPCN honours a lifetime's work on Rongoā Māori

Rob McGowan.

Rob McGowan presents as a kindly, unassuming person, the sort of chap who would unhesitatingly help to pick up your groceries that had spilled out on to the street; certainly not the type of person whom one would view as a staunch advocate for rongoā Māori (traditional Māori medicine). Yet rongoā Māori is Rob's passion, that and preserving the oral traditions surrounding the medicinal usage of the Aotearoa/New Zealand indigenous flora.

Rob's ethnobotanical knowledge stems from over 20 years of his teaching and researching the subject and assisting Māori to re-engage in traditional uses of Aotearoa/New Zealand indigenous plants, particularly for medicine (rongoā Māori). Rob is a regular presenter on Māori Television's "Kiwi Maara & Maara Kai" programmes sharing his vast knowledge on rongoā Māori with the New Zealand public. Indeed, Rob is now one of the foremost authorities on rongoā Māori and is nationally respected for his work in the restoration of rongoā Māori practice in New Zealand.

Though the resurgence of m*ā*tauranga Māori is one of the many encouraging signs of an improvement in New Zealand people's acceptance of iwi culture and practices, the link between rongoā Māori, plant ecology, ecosystem health and conservation has perhaps not yet been so widely appreciated. Rob McGowan has long been concerned not only with the loss of rongo*ā* traditions but also the implications of the impacts this loss of knowledge has had on the mauri of ecosystems through 'restorative' plantings using inappropriately eco-sourced material. For iwi, Rob has commented that it is not enough, or even culturally appropriate to use mahoe (*Melicytus ramiflorus*) for rongo*ā* if you live in the Bay of Plenty and your mahoe comes from the Waikato. Inappropriately eco-sourced plantings does affect the efficacy of rongoā, and here is where western science should pay attention – is it not widely argued (and in some cases has been demonstrated) that the failure to use eco-sourced material can affect local genetic variation?

Rob believes that the continued, widespread, poorly managed and unregulated planting of inappropriately (or often not at all) eco-sourced indigenous plants, under the guise of 'restoration' will, in the long term, do much harm to our ecosystems—for him it is not only the potential implications of diminishing the local rongoā resources but also the impact such plantings will have on local genetic diversity and ecosystem processes and functionality. In this respect, Rob's concerns echo those already being voiced by ecologists and biosystematists over the impacts already being caused by the widespread planting of selected clones of kahikatoa (*Leptospermum scoparium* agg.) for the manuka honey industry; the 'accidental' planting of 'eco-sourced' so-called Tasmanian ngaio (*Myoporum* aff. *insulare*—New Zealand material comes from Victoria not Tasmania) as ngaio (*M. laetum*), resulting in rife hybridism; and kowhai (*Sophora* spp.) plantings that not only include New Zealand species outside their natural ranges but also two Chilean and one Lord Howe Island species. In all cases, serious damage to our flora is now happening, and these are not isolated examples; similar stories can be told about inappropriate plantings involving harakeke (*Phormium*), cabbage trees (*Cordyline* spp.), manuka/rawiri (*Kunzea* spp.) and koromiko (*Hebe* spp.).

Although Rob has been involved in many worthy conservation initiatives, and served on and also as the Chair of the Bay of Plenty Conservation Board, it is Rob's long-term dedication to rongoā Māori, especially the way he has taken from that study a critical view of eco-sourcing, that makes him a well-deserved recipient of the New Zealand Plant Conservation's highest honour its 'Lifetime Achievement Award'.

Naming *Olearia*

Jan Michalak (jsmichalak@btinternet.com)

Olea-ria: Olea, olive: in allusion to the resemblances of the leaves of some species to those of the olive. (RHS Dictionary of Gardening, 1956)

The received view of the origin of the word is commonly claimed as that of Hooker, though in researching this article, evidence for that seems largely anecdotal. It is a fact, however, that Conrad Moench (b.1744, d.1805), who named the genus, was felt to be unreliable, particularly in his specific names and that may have led to his generic labelling being overlooked by later authorities.

Fairly recently, there has been a move away from the 'olive' allusion towards recognition of the name Olearius. There are issues here that cause confusion:

- There was an extensive family using the surname Olearius in sixteenth and seventeenth century Germany; many sharing the same names or variations of Johann and Gottfried. They all seem to have been polymaths, making names for themselves in theology, philosophy, botany, hymn composition and musicianship. The name is probably not a Latinised German name, but a Latin name chosen to make up for the lack of a family surname.
- Despite possible choices within that family, the man now often cited (Coombes 2012; NZPCN) is one Adam Ölschlager (b.1599-d.1671), who Latinised his surname as Olearius. He was a German scholar who travelled with diplomatic missions for Frederick III, and wrote about his experiences. There is no link with matters botanical in his life or work.
- Moench is described as a member of a group of botanists rebelling against the growing support for the new classification criteria of Linnaeus (Stafleu, 1967; Stearn 1966). Although he kept to the Linnaean system of naming genera (many of which have been retained as in *Bergenia, Echinacea, Olearia* and *Kniphofia*), he continued to use the traditional specifics and created multi-worded epiphets that were fairly quickly regarded as superfluous within the binomial system.
- Even when the various elements of the naming of the genus are brought together, it is not immediately clear why they are relevant in the context of rules laid down by Linnaeus in his *Critica Botanica* of 1737 (Stearn, 2005).

Moench

Conrad Moench, of Kassel, Germany, was responsible for the creation of a new botanical garden at the Philipps-Universität at Marburg in 1786 (Stearn, 1966). He had returned home after being educated, and subsequently teaching, at various universities in Germany. He represents a move away from the religion-based polymath generally associated with universities at that time, being a scientist and primarily a botanist. The Marburg gardens were a development of the old plant collection started in the 1527 augmented with the plant collection of Kassel's Landgrave.

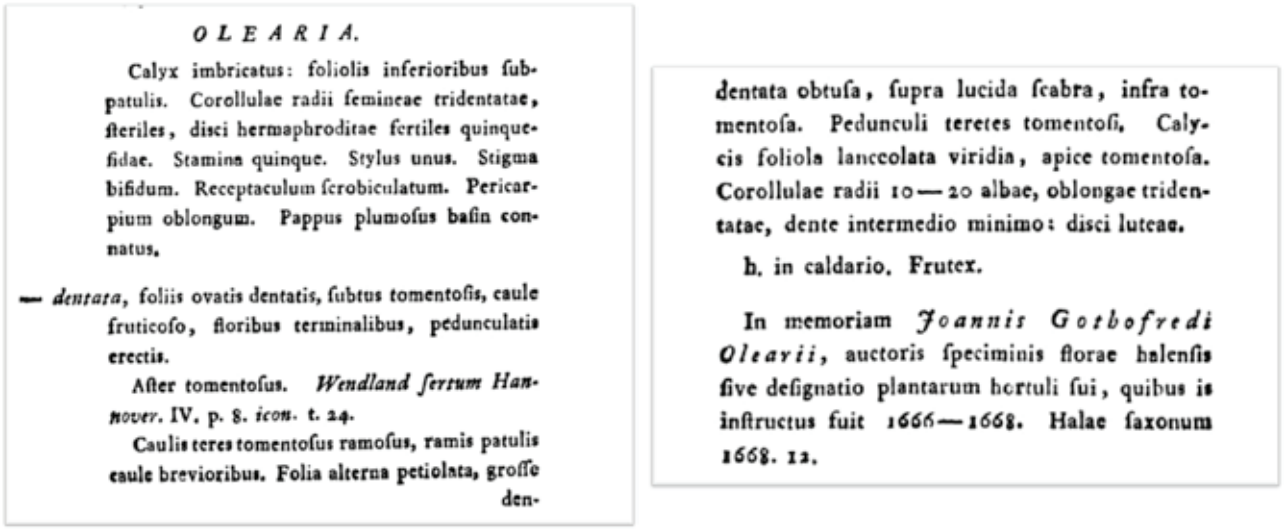
In 1794, he published his *Methodus plantas horti botanici et agri Marburgensis a staminum situ describendi* (Stern 1966), a detailed catalogue of 674 species grown in the Marburg gardens or wild in the Marburg region. His descriptions and observations are considered unusually full and exact, especially in descriptions of habitat:

> 'The coverage of the literature is remarkably complete it is for these reasons that, even though we can not count Moench among the great taxonomists, his book remains of general interest for the history of taxonomy.' (Stafleu, 1967)

In 1802, Moench published a second book, *Supplementum ad Methodum plantas* (Stern, 1966), which covered 634 more flowering plants acquired by the gardens. Here we find the first reference to *Olearia dentata*, as a replacement for the basionym *Aster tomentosa*. The name is dedicated to one, Johannes Gottlieb Olearius:

In memoriam Joannis Gothofredi Olearii, auctoris speciminis halensis sive designatio plantarum hortuli sui, quibus is infructus suit 1666–1668. Halae saxonum 1668.

('In memoriam Johann Gottfried Olearius who wrote the book called *'Specimen florae Hallensis'* about plants in 1666–1668 in his own (small) garden, in Halle, Saxony')



OLEARIA.

Calyx imbricatus: foliolis inferioribus ſubpatulis. Corollulae radii ſemineae tridentatae, ſteriles, disci hermaphroditae fertiles quinquefidae. Stamina quinque. Stylus unus. Stigma bifidum. Receptaculum ſcrobiculatum. Pericarpium oblongum. Pappus plumoſus baſin connatus.

— *dentata*, foliis ovatis dentatis, ſubtus tomentoſis, caule fruticoſo, floribus terminalibus, pedunculatis erectis.

Aſter tomentoſus. *Wendland ſertum Hannover.* IV. p. 8. *icon.* t. 24.

Caulis teres tomentoſus ramoſus, ramis patulis caule brevioribus. Folia alterna petiolata, groſſe dentata obtuſa, ſupra lucida ſcabra, infra tomentoſa. Pedunculi teretes tomentoſi. Calycis foliola lanceolata viridia, apice tomentoſa. Corollulae radii 10—20 albae, oblongae tridentatae, dente intermedio minimo: disci luteae.

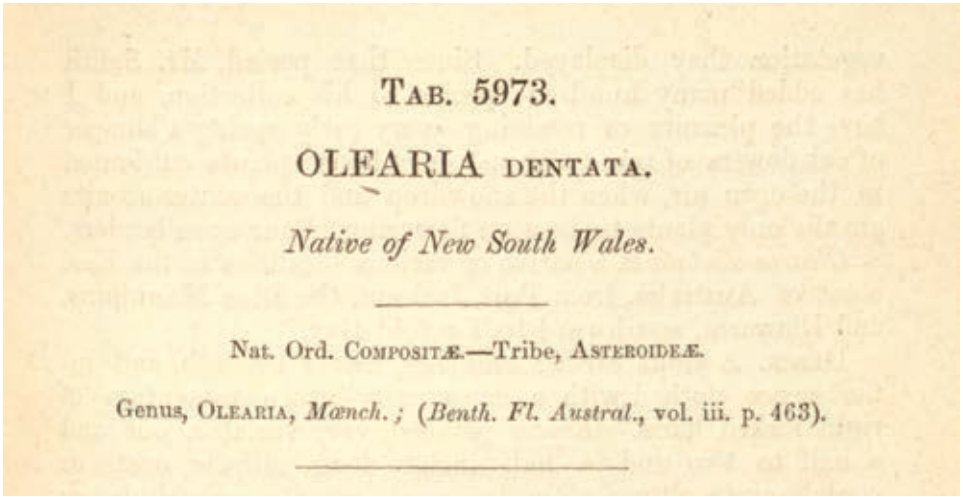
h. in caldario. Frutex.

In memoriam *Joannis Gothofredi Olearii*, auctoris ſpeciminis florae halenſis ſive deſignatio plantarum hortuli ſui, quibus is inſtructus fuit 1666—1668. Halae ſaxonum 1668. 12.

Excerpt from Moench's *Supplementum*. Courtesy of HathiTrust

Olearius (b.1635, d.1711)

Born in Halle and completing his extensive education at a number of German universities, Olearius was typical of the learned masters of his day—religiously inclined and master of many disciplines. His very considerable output of books and papers mainly comprises discussions of religious or philosophical matters, but includes two important botanical publications, *Hyacinth-Betrachtung darin die Hyacinth-Blum fürgestellt wird* and the above-mentioned *'Specimen florae Hallensis'* in which he records and discusses his observations of plants in his own garden over a three year period. Most of his life was spent in his birth town of Halle, but he also studied for a period before 1660 and retained links with the university at Marburg.



TAB. 5973.

OLEARIA DENTATA.

Native of New South Wales.

Nat. Ord. COMPOSITÆ.—Tribe, ASTEROIDEÆ.

Genus, OLEARIA, *Mœnch.*; (*Benth. Fl. Austral.*, vol. iii. p. 463).

Olearia dentata illustration and (right) title from Curtis's Botanical Magazine 1872. Courtesy of Biodiversity HeritageLlibrary.

Conclusion

In his *Supplementum*, Moench describes a plant he calls *Olearia dentata*. The name was retained for a time but, like so many of Moench's epiphets, was discarded in favour of *O. tomentosa* and, eventually, *O. rotundifolia*, with the consequence that Moench's part in the process recedes and, with that, the name of the man to whom it is dedicated. I think this research has gone some way towards reinstating them both; what may never be fully explained is Moench's choice of Olearius as dedicatee, but there is room here for some conjecture. Both men spent time at Marburg; although they could not have met, Olearius's work was clearly available to Moench. Moench's own work is valued for its unusually comprehensive coverage of his subject, especially his attention to habitat and habit over time. Olearius, too, left a very closely observed record of plants and habitat over time—perhaps a model for Moench?

Moench may have been resistant to Linnaean rules of taxonomy but, in his naming of the genus he follows the fashion that was rapidly being accepted by the botanists of his time. Here we see him obeying clause 221 of Linnaeus's *Critica botanica*: 'Generic names formed from two complete and distinct words are to be banished from the commonwealth of botany', and perhaps clause 238: 'Generic names formed to preserve the memory of a botanist who has deserved well of the science I retain as a religious duty.' (Linnaeus 1737, from Stearn, 2005 pp277-8)

Acknowledgements

My thanks first go to the Otari gardens for setting what has been a very interesting task and for wanting to get it right. Thanks, too, for the earliest input from Row Roskelly for demystifying the Latin. Valuable time was spent at the wonderful library, with wonderful librarians, at the Linnaeus Society offices in London. The Society's on-line catalogue is enormously interesting and helpful.

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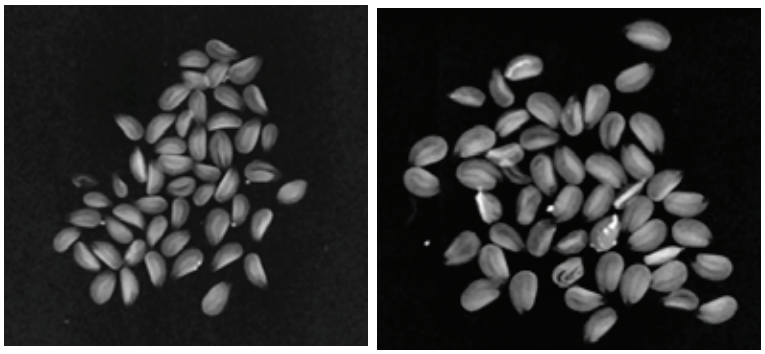
Oh Dearia!
I think my work would be wearier
And my life as a whole be much drearier
If this plant was made famous
By somebody called Seamus
And we all had to call it O'Learya

Jan Michalak, with apologies to Edward Lear (even before undertaking this project I have always advised students that there were no plant hunters called O'Leary.

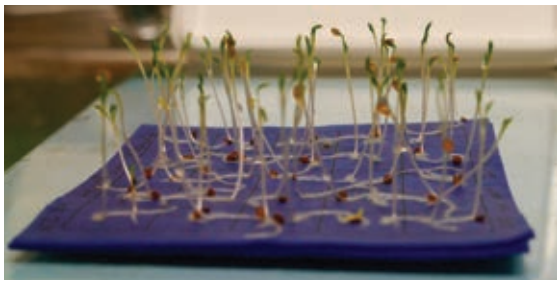
The New Zealand Indigenous Flora Seed Bank (NZIFSB) Update—Threatened species banked and seedlings to be returned to the wild

Jessica Schnell (j.l.schnell@massey.ac.nz) and Craig McGill (c.r.mcgill@massey.ac.nz) Massey University

Seed of two threatened species, *Lepidium solandri* and *Lepidium juvencum,* has been sent by Department of Conservation rangers, Daniel Kimber (Rangiora, *L. solandri*) and Graeme Loh (Dunedin, *L. juvencum*) for banking in the NZIFSB. Before banking the seed, seed quality was assessed, initially using the Faxitron Ultrafocus x-ray purchased for the NZIFSB project with funding from the New Zealand Lottery Grants Board. The X-ray images showed that apart from one or two seeds, seed from both species was fully developed and not harbouring any insects or insect larvae. Once the initial assessment by X-ray was completed, the sample of seed was set to germinate. As expected from the X-ray assessment and with only a small amount of dormancy in the *L. juvencum* seed (not always the case with seed of New Zealand's indigenous species) germination was high. *Lepidium solandri* reached 98% germination within 20 days and *L. juvencum* 80% within 21 days. The 20% of the *L. solandri* that had not germinated still look fresh suggesting this portion of the seed population is dormant. This dormancy will need to be broken for germination to proceed.



X-ray images of (left) *Lepidium solandri* and (right) *Lepidium juvencum*.



The seedlings from seeds that have germinated have now been returned to Daniel and Graeme and, once large enough, will be used to increase plant numbers either at the collection site or an alternative site if the plants are under threat at the collection site.

Left: *Lepidium solandri* seedlings on the germination blotter.

Fern and fir, will the title holders rate again? The 2014 Favourite Plant and Worst Weed vote begins…

Matt Ward, Network Council Member (mattdavidward@gmail.com)

Voting for the 2014 Favourite Plant and Worst Weed will commence on 1 November and run until 30 November. A button will appear on the NZPCN home page (www.nzpcn.org.nz) which, when pressed, will prompt the voter through the easy steps on how to vote. You may also comment on why you have made your choice, if you wish.

Last year's favourite plant was *Hymenophyllum malingii,* the first time a fern had taken out the title. It was a particularly popular winner that roused some fantastic comments. Just seeing this usually epiphytic specialist takes some effort because it usually occurs in mountainous habitats on only a few species of dying tree trunks. Some of last year's remarks included:

The 2013 winner, *Hymenophyllum malingii*—"more silver than silver fern"
Photo: Jane Gosden.

"*It's really a sight to behold when found covering a whole stump like a silvery carpet.*"

"*This fern is more silver than silver fern!... It's part of a group of wide-ranging and often over looked delicate ferns - the Hymenophyllaceae. Simply spectacular.*"

"*I love this fern—it's a bit mysterious and always a thrill to find it as you don't see it everywhere! It just looks so primitive and conjures up images of prehistoric NZ to me.*"

Other past winners have included pohutukawa, *Metrosideros excelsa* (twice); Cook's scurvy grass, *Lepidium oleraceum;* Chatham Island Christmas tree, *Brachyglottis huntii;* willowherb, *Epilobium microphyllum;* pingao, *Ficinia spiralis;* Chatham Island forget-me-not, *Myosotidium hortensia;* giant wire rush, *Sporadanthus ferrugineus;* and kauri, *Agathis australis*. Will any past contenders prevail again?

The most despised weed in the 2013 vote was a newcomer to the top 10, Douglas fir, *Pseudotsuga menziesii.* This weed tree is extremely visible as a wilding species that causes untold visual pollution and takes huge efforts to control it. Will it be loathed as much this year?

The worst weed has been voted for only since 2012. The winner that year was one of my pet hates, tradescantia, *Tradescantia fluminensis.* It also came third last year, a very unpopular species with the voters. Maybe it will again take the title.

With voting to start soon, start thinking about your favourite plant and worst weed. Five minutes of your time is as long as it will take, to have your say. I'm hoping an orchid will win for the first time, what about you?

Interest growing in all things epiphytic

Catherine Kirby, University of Waikato (c.kirby@waikato.ac.nz)

An array of epiphytes.
Photo: Jeremy Rolfe.

How on earth are those plants hanging on up there?! I must have asked myself this question many hundreds of times while out epiphyting* but, despite lots of prodding and pondering, I find that the answer is usually unclear. The incredible stick-ability of New Zealand epiphytes to their host branches is one of many interesting features of this diverse group of plants. Hypotheses from fellow epiphyters** to explain this sticky skill have ranged from networks of hidden roots to strong patupaiarehe+ spells. It might take a few PhDs to narrow the answer down but in the meantime I will continue to enjoy the wonder that these questions create amongst people from all different backgrounds.

Helping people to notice and enjoy epiphytes, vines and mistletoes has been my mission for the last few years. These ferns, nests, orchids, shrubs, trees, succulents, vines and mistletoes add another dimension to the bush experience, especially if you can spot colourful fruit, enormous roots or aromatic flowers. I'm just lucky to have the opportunity to share the plants I love with everyone from conference attendees to primary school children.

The first big opportunity to share and learn about epiphytes was the 2013 New Zealand Epiphyte Workshop++ with guest speaker Professor Gerhard Zotz (aka epiphyte-extraordinaire). This workshop brought together researchers and managers from around the country who were working with epiphytes. To connect this diverse group of people post-workshop, the New Zealand Epiphyte Network (www.nzepiphytenetwork.org) was established. Over the last 18 months its regular blog and Facebook page have built a community of 85 keen people who share and discuss everything from research findings to beautiful epiphyte-inspired artwork.

Following the workshop, I was lucky to be part of a team who evaluated the feasibility of using video cameras in the canopy to find out who, and what, lives in our epiphytes. Although watching the footage was time consuming, we found cameras to be a useful addition to the normal range of canopy survey techniques. We were also excited that the cameras recorded a gecko in a kahakaha (*Collospermum hastatum*) and that phytotelmata sampling turned up the first record of the copepod *Attheyella lewisae* in a canopy habitat. For the full story see: www.science.canterbury.ac.nz/nzns/issues/vol39-2014/henwood.pdf

Alongside these projects I have been chipping away at an epiphyte-sharing idea that was conceived in 2009, started 2012 and finally finished in 2014! This December, with the support of the Environmental Research Institute, University of Waikato, I will be launching the first *Field guide to New Zealand's epiphytes, vines and mistletoes*. I must thank all of the 42 photographers and 10 reviewers who made crucial contributions to the book and my special thanks to Professor Bruce Clarkson and the Environmental Research Institute for supporting this awesome journey.

I hope that the field guide will be the catalyst and tool for more people to learn about our amazing epiphytes, vines and mistletoes; I have certainly learnt a lot during its production. Please see the flyer attached to the back of the newsletter for a pre-release special offer if you fancy your own copy.

Glossary

*epiphyting = the exploration, observation, study, and all round enjoyment of epiphytes, vines, mistletoes and associated life forms.

**epiphyters = people who participate in epiphyting.

+patupaiarehe = in Māori tradition, patupaiarehe are fairy-like people who live in the forest or on misty mountain tops.

++2013 NZ Epiphyte Workshop = details and presentations available online: www.nzepiphytenetwork.org

NZIFSB Dunedin Seed Collector Training Workshop 10–12 November

The second South Island seed collector training workshop for the New Zealand Indigenous Flora Seed Bank (NZIFSB) will be held at the Dunedin Botanic Garden. This workshop will cover the appropriate methods and protocols for collecting seed for the New Zealand Indigenous Flora Seed Bank. Attending a workshop is a requirement for anyone wishing to be involved in this project as a collector. Numbers for the workshop will be capped at 25 people. The workshop will be led by the NZIFSB Project Leader, Mr Craig McGill. The first day of training will cover theory and the second and third days, the practical side of collecting through expeditions into the surrounding forest parks. Full details are:

- **Date and time: Monday 10 November – Wednesday 12 November (9.00 a.m. – 4.00 p.m. each day)**
- **Venue: Dunedin Botanic Garden**
- **Refreshments for morning and afternoon tea will be provided.**
- **There is no workshop registration fee but you will need to bring your own lunch,** or food can be purchased from the Croque-O-Dile Café (which is open from 9.30 a.m. to 4.30 p.m. and is located in the lower garden beside the Information Centre), or food can be purchased from the Gardens shopping centre which is a 5 minute walk from the training room.

Please register your interest early to avoid disappointment! To register or for further information, please contact the Seed Bank Coordinator, Mrs Jessica Schnell at (06)356 9099 Ext 83236 or email: J.L.Schnell@massey.ac.nz **by Wednesday 5 November 2014.**

Call for applications for 2015 for the Lucy Cranwell student grant for botanical research

Applications are invited for the Lucy Cranwell Grant of $2500 from the Auckland Botanical Society to assist a student studying for the degree of PhD, MSc, BSc (Hons) or B. Appl. Sci. in any tertiary institution in New Zealand whose thesis project deals with some aspect of New Zealand's flora and vegetation. Priority will be given to projects relevant to the northern half of the North Island. The research project to be supported will be chosen on the basis of appropriateness to the objects of the

Society, namely to encourage the study of botany, and to stimulate public interest in the plant life of New Zealand and its preservation, conservation and cultivation. The grant will be administered by the student's supervisor as a contribution to expenses associated with the project. Closing date for applications: **5.00 p.m. Friday 05 December 2014**

A copy of the Application Form and the Rules of the award may be downloaded from the Auckland Botanical Society website: https://sites.google.com/site/aucklandbotanicalsociety/

Contact for enquiries: Vijay Soma, Secretary, Auckland Botanical Society,
email: aucklandbotanicalsociety@gmail.com

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):

10th Australasian Plant Conservation Conference (APCC10)

11–14 November 2014: Hobart, Tasmania. The four sub-themes are: • Securing biodiversity; • Prioritising actions; • Anima*l*s in plant conservation; • Engagement and communication in the modern world.	**More information:** click here.

Australasian Systematic Botanical Society Conference

24–28 November 2014: Massey University campus, Palmerston North. The theme is 'Next-generation Systematics.'	**Information and registration details:** http://www.massey.ac.nz/~jtate/ASBS2014NZ.htm

Auckland Botanical Society

Meeting: Wednesday 5 November for a talk by Peter de Lange titled '*Kunzea*, and then there were 10'. **Venue:** Unitec Building 114, Room 2001.	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz
Field trip: Saturday 15 November to Motuketekete, south of Kawau, leaving Sandspit at 9.30 a.m. **Leader:** Ewen Cameron (ecameron@akmuseum.org.nz).	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz
Field trip: Saturday 6 December our Christmas picnic is at Shakespear Regional Park.	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz

Waikato Botanical Society

Field trip: Saturday 2 November to Te Matapuna Wetland**. Meet:** 10.30 a.m. at the corner of Parekarangaranga Road and Motuoapa Esplanade, Motuoapa. **Grade:** easy – medium. **To book:** please contact the leader.	**Leader:** Lucy Roberts ph: 022 649 8804 or email: lucyroary@gmail.com.

Field trip: Sunday 3 November to Rotokawa Geothermal Site, off Broadlands Road, Taupo. **Meet:** at 10.00 a.m. at lakefront Hotwater Beach car park, entrance opposite Tauhara Rd. **Grade:** easy – medium. **To book:** please contact the leader. **Note:** you may take part in one or both days; if the latter, organise your own accommodation.	**Leader:** Lucy Roberts, ph: 022 649 8804 or email: lucyroary@gmail.com**.**
Field trip: Saturday 6 and Sunday 7 December to Lake Surprise, Tongariro National Park (with Rotorua Botanical Society).	**See below for details.**

Rotorua Botanical Society

Field trip: Friday 31 October-Saturday 2 November-(Sunday 3 November optional) for East Cape revisited #8. **Meet: f**or those coming on Friday meet at Tim's bach on Friday night; for those coming on Saturday morning meet at ex Opotiki DOC office (cnr Elliot & St John Street) at 8.00 a.m. **Grade: m**edium. **Cost:** $20 donation for accommodation for those staying Saturday night. **Bring:** 4WD if you have one.	**Leader:** Tim Senior, ph: 0800 368 288 ext 6010 or 07 315 7371; email: tim.senior@envbop.govt.nz.
Field trip: Saturday 6 and Sunday 7 December to Lake Surprise, Tongariro National Park (combined Waikato Botanical Society). **Meet:** Saturday morning at Ohakune at 10.00 a.m. (contact the trip leader by the previous Wednesday. **Grade:** medium. **Accommodation:** DOC Mangaturuturu Hut, $15/$5 (adult/youth hut tickets required). **Bring:** full alpine tramping gear, warm clothing and food for an overnight stay in an alpine hut.	**Leader:** Mike Butcher, ph: 07 315 7160 (hm) or 0274 555 610; email: mikebutchernz@xtra.co.nz.

Wanganui Museum

Field trip: Sunday 2 November to a privately-owned bush on a small tributary of the Mangawhero River, beside Otamoa Road near Aberfeldy School, SH4. **Meet:** at the Police Station at 9.00 a.m. Bring: drink, lunch and good footwear.	**Leader:** Colin Ogle, email: robcol.ogle@xtra.co.nz.
Meeting: Tuesday 4 November at 7.00 p.m. for a workshop on the Plant Family Solanaceae. **Venue:** Museum Classroom but enter through the Davis Theatre as usual. **Bring:** writing material, hand lens, plant specimens, e.g., nightshades, poroporo, tomato, potato, tamarillo, capsicum, cape gooseberry, *Datura/Brugmansia, Nicotiana, Salpiglossus, Solandra, Cestrum, Iochroma, Petunia.* (Does anyone have access to a bit of flowering *Schizanthus*?).	**Guide:** Colin Ogle, but everyone teaches everyone at these workshops!

Wellington Botanical Society

Field trip: Saturday 1 November to Gibbs Covenant, Eastbourne. **Meet:** 9.45 a.m. at 291a Muritai Rd, Eastbourne.	**Leader:** George Gibbs, ph: 04 562 0992. **Wellington contact:** Sunita Singh, ph: 04 387 9955 mobile: 027 4052 987.
Field trip: Saturday 15 November to Te Marua Bush working bee. **Meet:** 9.30 a.m. at Te Marua Bush (250 m north of Te Marua Store and then left, off SH2 for 50 m, along the road to Te Marua Lakes, Kaitoke Regional Park).	**Co-leaders:** Glennis Sheppard, ph: 04 526 7450, and Sue Millar, ph: 526 7440.

Meeting: Monday 17 November at for three talks: 'Exotic bees and native trees'; 'Science Fair prize winner'; and 'VUW tree research' by Julia Stace and Ian Goodwin; Sophie Russell, year-8 pupil at Northland School; and Frances Forsyth, MSc student, School of Biological Sciences.	**Venue:** VUW Lecture Theatre M101, Murphy Building ground floor, west side of Kelburn Parade.
Field trip: Saturday 29 and Sunday 30 November to John and Annabel Porter's covenant, Riversdale, Wairarapa (www.porterspinot.co.nz). **Meet:** 10 a.m. on Te Ore Ore Rd, Masterton, opposite Henley Lake Recreation Area. **Accommodation:** the Porters' whare sleeps 6–7 people; camping available around it for up to 18. Alternative accommodation: Camp Anderson, Riversdale Beach (www.campanderson.co.nz) please arrange your own bookings.	**Co-Leaders:** John and Annabel Porter. **Wellington contact:** Sunita Singh, ph: 04 387 9955, mobile: 027 4052 987.

Nelson Botanical Society

Field trip: Sunday 16 November to Waireka Rd, Tophouse Covenant. **Meet:** at the Church Steps at 8.00 a.m.	**Leader:** Helen Lindsay ph. 03 528 4020, please register with her.

Canterbury Botanical Society

Meeting: 7 November at 7.00 pm for the presentation of the Allan Mere Award to Dr Brian Molloy followed by a talk by John Barkla, Department of Conservation Otago, titled 'The special plants and places of Otago'.	**Venue:** Upper Riccarton Library community meeting room, 71 Main South Road.
Field trip: 8 November to Eyrewell kanuka remnants. **Meet:** Belfast Tavern car park at 10.00 a.m.	**Leader:** Miles Giller, ph: 03 313 5315

University of Canterbury summer course: Practical Field Botany BIOL305

Dates: 20–28 January 2015. This is 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. **Enrolment:** starts 7 October 2014.	**Information:** Dr Pieter Pelser, ph: 03 364 2987 ext 45605, email: pieter.pelser@canterbury.ac.nz.

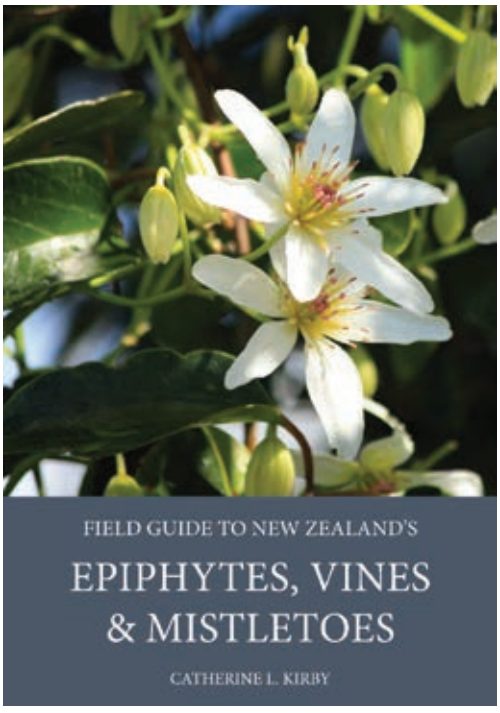
Botanical Society of Otago

Field trip: Saturday 1 November **to** Macraes Flat (rain day Sunday 2 November). **Meet:** at the Botany car park to depart at 8.30 a.m.	**Contact:** Marcia Dale, ph: 03 454 6706, email: imaginarycrayfish@gmail.com.

ANNOUNCING

a new book on NZ flora:

FIELD GUIDE TO NEW ZEALAND'S EPIPHYTES, VINES & MISTLETOES



- Available in mid-December
- First field guide to specifically profile New Zealand's native epiphytes, vines and mistletoes
- 268 pages, 103 species, over 300 superb photos
- Easy to use with clear botanical information and identification clues
- $45 RRP

PRE-RELEASE SPECIAL OFFER: only $35

Order by November 10th to secure a discounted copy. First 50 orders receive a signed copy. Delivery guaranteed before Christmas. $5 p&p.

To order, email nzepiphytenetwork@gmail.com with your name, postal address, phone number and the subject line: *Field Guide Pre-Order*

www.nzepiphytenetwork.org