NEW ZEALAND PLANT CONSERVATION NETWORK

TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 141

August 2015

Deadline for next issue: Monday 14 September 2015

SUBMIT AN ARTICLE TO THE NEWSLETTER

Contributions are welcome to the newsletter at any time. The closing date for articles for each issue is approximately the 15th of each month.

Articles may be edited and used in the newsletter and/or on the website news page.

The Network will publish almost any article about plants and plant conservation with a particular focus on the plant life of New Zealand and Oceania.

Please send news items or event information to events@nzpcn.org.nz

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

PLANT OF THE MONTH, p. 2

Cassytha paniculata.

NZPCN 2015 Annual General Meeting

When: Friday 30 October 2015, 12.40 – 1.10 p.m.

Where: The Kakapo Room, Otago Museum, 419 Great King Street Dunedin. To be held during the lunch break of Day 2 of the conference. Conference delegates already attending the conference are welcome to bring their lunch into the room where the AGM will be held.

Business: Receipt of the annual report and the financial report; appointment of officers and Council members, general business; presentation of the NZPCN awards.

Why: it is important that members attend to elect the officers and Council members and stay abreast of the business of the Network (there will also be treats to encourage you to attend!).

Council member profiles (3)

Sarah Richardson

Sarah Richardson on Banks Peninsula.

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 of work, I am easily distracted by tramping, my vegetable garden, cooking beans, and enjoying film festivals.

John Barkla

John Barkla at Tasman Glacier.

John was a botanist with the Otago Conservancy of the Department of Conservation for many years before becoming a Partnerships Ranger in Coastal Otago. He has wide experience of plant conservation and habitat restoration from projects that span the Kermadec Islands to the Subantarctic. John is a member of the New Zealand Threat Classification Expert Panel (Vascular Plants) that periodically reviews the threat status of New Zealand's vascular plants. Outside work, he enjoys roaming the hills, photography, and exercising the black lab (preferably all at the same time).

PLANT OF THE MONTH – *CASSYTHA PANICULATA*

Cassytha paniculata. Photo: Jeremy Rolfe.

Plant of the month for August is *Cassytha paniculata*, mawhai. This unusual, leafless, climbing, twining parasitic plant belongs to the family Lauraceae along with tawa, taraire and mangeao. *Cassytha paniculata* has pale green stems with its flowers borne in panicles. Its habitat is lowland shrubland from North Cape to Ahipara and Mangonui.

There are 25 *Cassytha* species, mostly found in tropical climates. Most are native to Australia, with a few species indigenous to Africa, southern Asia, various Pacific Islands and regions of the Americas. The only true native species in New Zealand is *C. paniculata*. It is a common parasite on manuka in the gumlands of the Far North where it smothers trees with its yellowish wiry stems.

A similar Australian species, *C. pubescens*, is regarded as a non-resident native-coloniser in New Zealand (for a full explanation of this term then follow the link: http://www.doc.govt.nz/nature/valuing-nature/threatened-species-categories/)

The Network factsheet for *Cassytha paniculata* can be found at: http://www.nzpcn.org.nz/flora_details.aspx?ID=1607

Prebbleton Nature Park

Michele Frey (Michele.frey@opus.co.nz)

Introduction

In September 2001, a seed was planted. Not a literal one, but an idea; an idea for a gravel pit to be transformed into a nature park; a place where people could enjoy some peace and quiet; a place where native flora and fauna could be celebrated; and a place where the community could learn about the process of ecological restoration. Fourteen years on and the seed has been planted, literally.

Today, the Prebbleton Nature Park is thriving. The park was recently awarded the Department of Conservation, Canterbury Aoraki Conservation Board Award (2014), which is a testament to its success.

Prebbleton Nature Park 2014.

The transformation of the 2.59 ha site from a 'weed infested, jumbled, derelict patch of unwanted land, grazed by a few sheep" (Spellerberg and Frey, 2008) into a highly valued nature park is due to the commitment and drive of several key community members, the strong support of the land's administrator, Selwyn District Council, and support from other key environmental agencies. The high level of community participation has heightened the community's awareness of just how important this type of restoration project is. The park has a continuing record of community planting days, working bees, school visits, student projects

and an active community relations programme bringing people together for the benefit of the park and raising awareness of biodiversity values.

Project inception

The idea behind the creation of the Prebbleton Nature Park was developed from a Concept Development Plan funded by Selwyn District Council and developed by me in 2003. I was a student at Lincoln University at that time; my work was supported by Lincoln University through Professor Ian Spellerberg, then Director of the Isaac Centre for Nature Conservation.

The vision

"Imagine stepping out of your back door and into a secluded area surrounded by the call of the tui and the scent of native regeneration, into an area where native Canterbury is all that can be seen. Step into the past for a moment, yet be aware that this has come about through passion and persistence of those who care. This is possible."

The plan was well received and I was asked to return the following summer (2004) and begin to get the plan implemented. Landscape Architect, Jo Sutherland, was engaged to develop an overall landscape approach for the site. Alongside Jo's expertise and associated input, a community group was brought together to help develop the project into reality. Margaret Hayman was appointed as the Volunteer Coordinator supported by Jim Hutton and John Hayman. Jim subsequently dedicated his retirement life to the project spending every spare minute down at the quarry tending the young plants, weeding and carrying out pest control. He is currently the Project Coordinator.

March/April 2004: Gorse and broom area before clearing.

Site development

In preparation for planting in 2004, rubbish and plant pests were removed from the site. Large exotic trees (macrocarpa and pines) were removed with the exception of a lone pine near the entrance, retained as a reminder of the people who lived and worked at the quarry. Areas to be planted were sprayed with herbicide.

2004: First planting along the southern boundary.

Locally-sourced plant species were obtained in order to recreate an authentic Canterbury Plains plant community. The Department of Conservation, Motukarara Nursery, as well as Trees for Canterbury and Wairoa Nursery were able to provide locally sourced plants (an inventory of species is presented as Appendix I). Hardy plants such as flax, toe toe, koromiko, kanuka, matipo and cabbage trees were planted initially and, as these became established and created shelter, woody species such as kowhai, totara, kahikatea and lacebark were planted. Smaller, threatened species have been included such as *Olearia adenocarpa*, *Meuhlenbeckia astonii*, *M. ephedroides*, *Teucridium parvifolium*, *Coprosma intertexta* and *Euphorbia glauca*. Plant shelters were put around small plants and on tough sites and all plants were mulched in the early years to retain moisture and to suppress weeds.

Overall maintenance has continued to be shared by the Selwyn District Council and the Prebbleton community. Ongoing weed control comprises a combination of spreading mulch, hand weeding and spraying with herbicide. Predator control has been ongoing.

Learning from this project

Fortunately, this project has been well documented, with learning carefully considered and recorded in a number of ways over the years including having the content recorded via a directly applicable masters dissertation in 2004 (Frey, 2004), a chapter in Spellerberg and Frey (2008) and a journal paper (Frey and Spellerberg, 2011). The dissertation and follow-up journal paper investigated the feasibility of applying the learning from the Prebbleton Nature Park project to other gravel pits in the district and beyond. The investigation found that the learning could be applied to other sites to recreate a useful community park. A series of stages/considerations were identified as essential for the ultimate success of any site including, but not limited to; community engagement and buy in for the concept and careful background planning and investigation. For further reading see Frey and Spellerberg (2011) (http://dx.doi.org/10.1080/14486563.2011.566159).

2007 (top) and 2010.

In 2012, I was engaged by Selwyn District Council to develop a decision making tool for the future use with gravel pits in Selwyn District. The background work that had been completed as part of the Prebbleton Nature Park project and through my subsequent masters (Frey, 2004) (and related research) provided useful background information to inform the development of the decision making tool. The decision making tool considers a range of possible future uses for gravel pits and provides a methodological approach to enable the Selwyn District Council to make decisions about the most appropriate future use of any given site.

Finally, in reflecting, it's amazing to think that a little old gravel pit can bring about so much change, inspiration and energy. But it can. What lies in store for all of those other little old spaces?

References

Frey, M. 2004: Feasibility study of a template model for assessing gravel pits as passive ecological reserves. Master of Applied Science dissertation, Lincoln University library, Canterbury, New Zealand.

Frey, M; Spellerberg, I. 2011: Restoring the amenity and nature conservation values of gravel pits: an ecological restoration and community engagement approach. *Australasian Journal of Environmental Management* 18(1): 33–46.

Spellerberg, I; Frey, M. (eds). 2008: *Living with Natives – New Zealanders talk about their love of native plants*. Canterbury University Press. Canterbury, New Zealand.

2014.

APPENDIX I: Prebbleton Nature Park: Flora List

Botanical Name	Common Name
Aciphylla subflabellata	Speargrass
Anemanthele lessoniana	Wind grass/gossamer grass
Aristotelia fruticosa	
Aristotelia serrata	Wineberry/makomako
Carex comans	Low tussock/sedge
Carex secta	Tussock/sedge
Carex testacea	Tussock/sedge
Carmichaelia australis	Native broom
Carmichaelia corrugata	Native broom
Carmichaelia monroi	Native broom
Carpodetus serratus	Marble leaf/putaputaweta
Clematis marata	Native clematis
Clematis paniculata	Puawhananga
Coprosma acerosa	Sand coprosma
Coprosma crassifolia	Small leaf coprosma
Coprosma intertexta	Small leaf coprosma
Coprosma propinqua	Small leaf coprosma/mingi mingi
Coprosma robusta	Large leaf coprosma/ karamu
Coprosma rotundifolia	Miki miki
Coprosma virescens	Small leaf coprosma/miki miki
Cordyline australis	Cabbage tree/ti kouka
Cordyline australis 'purpurea'	Purple cabbage tree
Corokia cotoneaster	Korokio
Cortaderia richardii	South Island toe toe
Dianella nigra	Turutu
Discaria toumatou	Matagouri
Dodonaea viscosa	Akeake
Euphorbia glauca	Shore spurge
Geranium traversii	Geranium
Griselinia littoralis	Broadleaf/kapuka
Hebe salicifolia	Koromiko
Hebe strictissima	Banks Peninsula koromiko
Helichrysum lanceolatum	
Hibiscus richardsonii	
Hoheria angustifolia	Narrow leaved lacebark/ houhere
Kunzea ericoides	Kanuka
Apodasmia similis	Oioi
Melicytus alpinus	Porcupine shrub
Muehlenbeckia astonii	Shrubby tororaro
Muehlenbeckia complexa	Small-leaved pohuehue
Muehlenbeckia ephedroides	
Myrsine australis	Red stem matipo
Myrsine divaricarta	Weeping mapou
Fuscospora fusca	Red beech
Fuscospora solandri	Black beech
Olearia adenocarpa	Tree daisy
Olearia hectorii	
Olearia lineata	Twiggy tree daisy
Olearia paniculata	Golden ake ake/akiraho
Ozothamnus leptophylla	Cottonwood
Parsonsia heterophylla	NZ jasmine/kaihua
Phormium tenax	Tall flax/harakeke
Pittosporum eugenioides	Lemonwood/tarata
Pittosporum tenuifolium	Kohuhu
Poa cita	Silver tussock
Podocarpus totara	Totara
Pratia angulata	Panakenaka
Pseudopanax arboreus	Five finger
Pseudopanax crassifolius	Lancewood/horoeka
Pseudopanax ferox	Fierce lancewood
Pseudopanax laetus (trident)	
Pseudowintera colorata	Pepper tree
Sophora microphylla	South Island kowhai (some may be hybrids)
Sophora prostrata	Prostrate kowhai
Teucridium parvifolium	

New Zealand Indigenous Flora Seed Bank (NZIFSB) – Visit by Jessica Schnell to the Millennium Seed Bank, Royal Botanic Gardens, Kew

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

As part of the collaboration between the New Zealand Indigenous Flora Seed Bank and the Royal Botanic Gardens, Kew, Jessica Schnell is spending some time working in the Millennium Seed Bank, Wakehurst Place, West Sussex, United Kingdom. The aim is for Jessica to expand her curation and seed processing skills as well as experiencing seed collecting in the UK. Jessica has been following the banking process from arrival of the seed through to it being placed in the seed bank at -20°C.

Seed Cleaning

The first job when the seed arrives at the seed bank is for the seed to be cleaned. The process begins with the seed being allocated a serial number. With seed being received by the Millennium Seed Bank from all around the world, the next step is to assess if the collection is infested. For seed found to be infested, the relative humidity of the seed is tested and if it is found to be dry enough not be damaged by freezing it, then the seed is placed at -20°C for 1 week. Seed not infested goes straight into the drying room to bring down the moisture content of the seed to the low levels needed to maximise the seed storage life. Treated seed can also be a potential hazard. Treated seed is handled in the dust-hood with heavy duty gloves worn. Cleaning is done by hand or with blowers rather than by machine to minimise damage during the cleaning process – damage that may reduce the seed storage life.

Seed capsules with the rubber bung and sieve used to extract the seeds.

Jessica cleaning *Medicago littoralis* seed from Italy. A rubber bung and sieve are used to remove the seed from the capsules.

X-raying

Once seed is cleaned to assess the quality of the seed, as at the New Zealand Indigenous Flora Seed Bank, a subsample of 20 or 500 seeds (depending on the number of seeds in the collection) is x-rayed. This will determine whether the collection has any empty, full, infestation-damaged or part-filled seeds.

The Faxitron x-ray system used at the MSB.

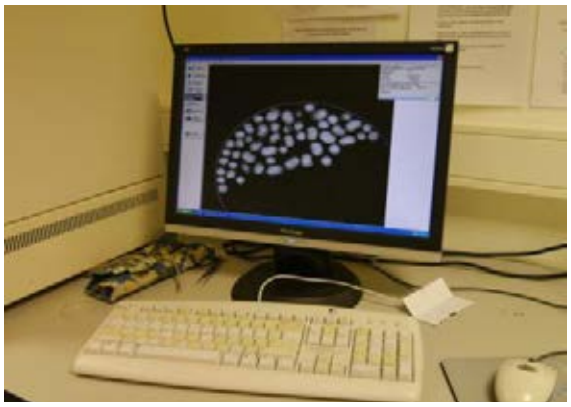


Image of seeds that have been x-rayed.

Counting

The number of seeds in the initial collection needs to be determined so seed numbers can be monitored, e.g., if seed is sent out from the collection for research. Therefore, once the seed is x-rayed, five samples of 50 seeds are counted and weighed (along with the remainder). The number of seed is adjusted for any empty or damaged seed and the information entered into the seed bank database.

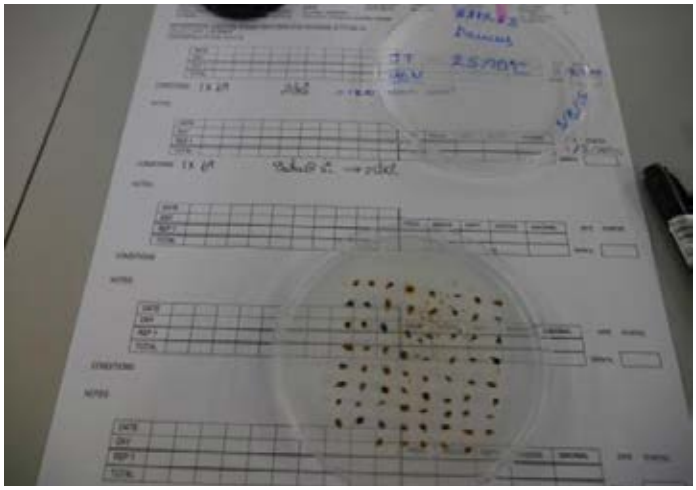
Seed Banking

Once the seed quantity has been assessed, the collection stays in the drying room from where it is packaged for banking at -20°C in the Millennium Seed Bank vault. The collection can be split into up to three parts for banking; the base collection, the active collection (of which a sample may be taken at a later date for germination testing) and a third part for cryopreservation (storage at -196°C in gaseous liquid nitrogen).

Germination testing

To ensure that the seeds are have survived the banking process and first month at -20°C, an initial germination test is done within 1 month of the seed being banked. Retests are done at 5, 10 or 20 year intervals depending on the predicted longevity of the seed.

From receipt to final banking the process ideally takes 3-6 months but, if large volumes of seed are arriving, the process can take longer. The aim is to process the seed as quickly and carefully.



Germination test sheet and the *Daucus* spp. seed set up on an agar plate for testing.

Acknowledgements

Our thanks go to Michael Way, Michiel Van Slageren, Rachael Davies, Pat Wood, Stephanie Miles and all the staff at Kew and the MSB for organising this training.

Jessica counting orchid seeds under the microscope.

Seeds counted into their 50 sub-lots with the remainder of the collection in the sixth container.

Collections ready for banking with their accession cards and labels. Collection data have already been entered into the seed bank data base.

Jessica in the -20°C freezer beside some of the 2,115,847,290 seeds in the collection representing 36,333 species (over 10% of the world's flora).

NZPCN 2015 Conference Charity Auction – donations update

Matt Ward NZPCN Council Member (mattdavidward@gmail.com)

Another quick update on how we are going with donations for the NZPCN 2015 Conference Silent Auction. The auction will run from the beginning of the conference, 28 October, until the conference dinner on 30 October. NZPCN members unable to attend the conference are also welcome to bid on items, details about how will be posted in the September *Trilepidea*. There really are some treats open for bids.

There have been some more amazing donations promised and received from kind folk since my last update. Thank you to those people who have contacted me with donations after reading the last article in the July *Trilepidea*. This has resulted in many more potential and confirmed donations. We have also received amazing donations from Real Journeys, Canterbury University Press, Lynne & Trevor Huggins – Folster Garden B&B, Marie Brown, Touchwood Books, Jessica Beever, and Alan Mark, thank you so much for your generosity. All donations will be put on the website as they are confirmed.

Here's the latest of what is available:

Experiences

- A night's accommodation for two including guided walk and breakfast at Bushy Point Fernbirds – Ecofriendly Bed & Breakfast.
- A Milford Wanderer Overnight Cruise package with Real Journeys for two adults. Unwind after the conference by taking in the beauty of Milford Sound in Fiordland National Park.
- Overnight accommodation and breakfast for two with Folster Garden Bed & Breakfast.

On board Real Journeys "Milford Wanderer", an experience that will appeal to the adventurous. RRP $850.

Art

- An oil painting of *Dracophyllum menziesii* by Dunedin artist and NZPCN member Marcia Dale. The painting is based on a photograph by Mike Thorsen.

Gear

- A *'Nort'* back pack donated by Cactus Outdoors.
- A 'One Tough Brutha' rain jacket donated by Swazi New Zealand (similar to the 'Tahr' anorak), XL.

Books

- A signed copy of "Vanishing Nature: Facing New Zealand's Biodiversity Crisis" published by the New Zealand Ecological Defence Society, donated by Marie Brown.
- A signed copy of "Fieldguide to New Zealand's Epiphytes, Vines and Mistleltoes" donated by Catherine Kirby.
- A signed copy of "Wilderness Heritage" donated by Burton and Potton Publishing.
- A signed copy of "Common Ground: A who's who of botanical names" donated by Val Smith.
- Two signed copies of "Wild Dunedin: the natural history of New Zealand's Wildlife Capital" by Neville Peat and Brian Patrick, donated by Otago University Press.

Fantastic signed books donated by Jessica Beever, Touchwood Books, Canterbury University Press, and Alan Marks.

- Two copies of "The natural history of southern New Zealand" donated by Otago University Press.
- Five copies of the soon-to-be-released memoir by Sir Alan Mark, "Standing my ground: a voice for nature conservation" donated by Otago University Press.
- A copy of "Seeds of New Zealand - Gymnosperms and Dicotyledons" by Colin Webb and Margaret Simpson, donated by Manuka Press.
- A signed copy of "Small-leaved shrubs of New Zealand" by Hugh Wilson and Tim Galloway, donated by Manuka Press.
- A signed copy of "Wild Plants of Mt Cook" by Hugh Wilson, donated by Manuka Press.
- A copy of "Akaroa cocksfoot: King of grasses" by Vaughan Wood, donated by Canterbury University Press.
- A copy of "Chatham Islands: Heritage and conservation" edited by Colin Miskelly, donated by Canterbury University Press.
- A copy of "Great Barrier Island" edited by Don Armitage, donated by Canterbury University Press.
- A copy of "Land very fertile: Banks Peninsula in poetry and prose" edited by Coral Atkinson and David Gregory, donated by Canterbury University Press.
- A copy of "Living with natives: New Zealanders talk about their love of native plants" edited by Ian Spellerberg and Michelle Frey, donated by Canterbury University Press.
- A copy of "The Natural History of Canterbury" edited by Michael Winterbourn, George Knox, Colin Burrows and Islay Marsden, donated by Canterbury University Press.
- A copy of "Threatened Plants of New Zealand" by Peter de Lange, Peter Heenan, David Norton, Jeremy Rolfe and John Sawyer, donated by Canterbury University Press.
- A copy of "West Coast walking: A naturalist's guide" by Kerry-Jayne Wilson, donated by Canterbury University Press.
- A signed copy of ""Natural History of Banks Peninsula: by Hugh Wilson, donated by Canterbury University Press
- A signed copy of 'Field Guide to New Zealand's Native Trees" by John Dawson and Rob Lucas, donated by Touchwood Books.
- A signed copy of "Above the Treeline; A nature guide to Alpine New Zealand" by Alan Mark, donated by Touchwood Books.
- A signed copy of the out-of-print "The mosses of New Zealand' (1992) by Beever, Allison and Child, donated by Jessica Beever.
- Two signed copies of "Above the treeline: A nature guide to Alpine New Zealand" donated by Alan Mark.

In addition to these goods to be auctioned for the "David Given Scholarship Fund" and the NZPCN "Conservation Endowment Fund", we have received a generous cash donation of $500 for the David Given Scholarship Fund from the Otari-Wilton's Bush Trust. The Network thanks the Trust for this donation.

Conference 2015

The 2015 conference in Dunedin is shaping up to be an exciting and though-provoking event. The speaker programme, workshops and field trips have now been finalised and can be viewed on our website at this link: http://nzpcn.org.nz/page.aspx?nzpcn_events_conference_2015.

Registration for the conference has been open now for some weeks and registrations have been coming in steadily. The spaces in botanical illustration workshop are now all taken, the photography one is filling steadily and at least one of the field trips is also filling up steadily. Registrations can be completed online by following the button on the home page (www.nzpcn.org.nz). Early-bird registration closes on 1 October 2015 after which fees increase by 10%.

NZPCN Annual Plant Conservation Awards

The prestigious New Zealand Plant Conservation Network Awards are now in their tenth year. We are now calling for nominations for the 2015 awards. The purpose of these awards is to acknowledge outstanding contributions to native plant conservation.

Award categories are:

- Individual
- School
- Council
- Community
- Plant Nursery
- Young Plant Conservationist of the Year (under 18 years at 30 June 2015)

The nomination form is available from the Network website:

- Nomination form 2015

We look forward to your nominations; you may make multiple nominations under different categories. Anyone is eligible to make nominations, not just Network members.

The awards will be presented at the 2015 conference dinner, Friday **30 October**, Otago Museum, Dunedin. Winners will be informed in advance and each will get a pair of complimentary tickets to the dinner.

Uncinia is now *Carex*

The Global *Carex* Group has recently published their findings of a worldwide review of the tribe Cariceae in Family Cyperaceae (Global *Carex* Group 2015). They argue that the genus *Carex* should be expanded to include the other genera in the tribe, including *Uncinia*, because these genera are firmly nested phylogenetically within *Carex*. Landcare Research botanist Kerry Ford contributed new combinations in *Carex* for the New Zealand species of *Uncinia* (Table 1). New specific epithets were needed for many of the species because their old names were already in use in *Carex*.

Table 1. Name changes resulting from the merger of *Uncinia* into *Carex*.

Old name in *Uncinia*	New name in *Carex*
Uncinia affinis (C.B.Clarke) Hamlin	*Carex potens* K.A.Ford
Uncinia angustifolia Hamlin	*Carex minor* (Kük.) K.A.Ford
Uncinia astonii Hamlin	*Carex hamlinii* K.A.Ford
Uncinia auceps de Lange et Heenan	*Carex auceps* (de Lange & Heenan) K.A.Ford
Uncinia aucklandica Hamlin	*Carex aucklandica* (Hamlin) K.A.Ford
Uncinia banksii Boott	*Carex banksiana* K.A.Ford
Uncinia caespitosa Boott	*Carex astricta* K.A.Ford
Uncinia clavata (Kük.) Hamlin	*Carex corynoidea* K.A.Ford
Uncinia distans Colenso ex Boott	*Carex subviridis* K.A.Ford
Uncinia divaricata Boott	*Carex edura* K.A.Ford
Uncinia drucei Hamlin	*Carex drucei* (Hamlin) K.A.Ford
Uncinia egmontiana Hamlin	*Carex egmontiana* (Hamlin) K.A.Ford
Uncinia elegans (Kük.) Hamlin	*Carex subtilis* K.A.Ford
Uncinia ferruginea Boott	*Carex megalepis* K.A.Ford

Old name in *Uncinia*	New name in *Carex*
Uncinia filiformis Boott	*Carex lectissima* K.A.Ford
Uncinia fuscovaginata Kük.	*Carex penalpina* K.A.Ford
Uncinia gracilenta Hamlin	*Carex imbecilla* K.A.Ford
Uncinia hookeri Boott	*Carex crispa* K.A.Ford
Uncinia involuta Hamlin	*Carex crispa* K.A.Ford
Uncinia laxiflora Petrie	*Carex erythrovaginata* K.A.Ford
Uncinia leptostachya Raoul	*Carex cyanea* K.A.Ford
Uncinia longifructus (Kük.) Petrie	*Carex longifructus* (Kük.) K.A.Ford
Uncinia nervosa Boott	*Carex cheesemanniana* (Boeckeler) K.A.Ford
Uncinia obtusifolia Heenan	*Carex obtusifolia* (Heenan) K.A.Ford
Uncinia perplexa Heenan et de Lange	*Carex perplexa* (Heenan & de Lange) K.A.Ford
Uncinia purpurata Petrie	*Carex purpurata* (Petrie) K.A.Ford
Uncinia rubra Boott	*Carex punicea* K.A.Ford
Uncinia rupestris Raoul	*Carex horizontalis* (Colenso) K.A.Ford
Uncinia scabra Boott	*Carex healyi* K.A.Ford
Uncinia silvestris Hamlin	*Carex silvestris* (Hamlin) K.A.Ford
Uncinia sinclairii Boott	*Carex parvispica* K.A.Ford
Uncinia strictissima (Kük) Petrie	*Carex strictissima* (Kük) K.A.Ford
Uncinia uncinata (L.f.) Kük.	*Carex uncinata* L.f.
Uncinia zotovii Hamlin	*Carex zotovii* (Hamlin) K.A.Ford

Reference

Global *Carex* Group. 2015: Making *Carex* monophyletic (Cyperaceae, tribe Cariceae): a new broader circumscription. *Botanical Journal of the Linnaean Society 179 (1)*: 1–42.

Wanted: a female *Coprosma intertexta* between Hawarden and Hanmer Springs

Daniel Kimber, Department of Conservation (dkimber@doc.govt.nz)

I need *Coprosma intertexta* seed to plant into the Culverden Scientific Reserve to ensure the future of the plant. I have only males and have not found a female in the 2 years I have been searching the local area. Can anyone help me, please? I know of the population in the Lees Valley but these are out of the ecological district that I can collect seed from for the Amuri Basin.

Please email me or phone me (03 313 0832) if you can help.

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):

Australian National Seed Science Forum

March 2016: The Forum will be held at the Australian PlantBank hosted by the Australian Botanic Garden, Mount Annan, in collaboration with the Australian Network for Plant Conservation and the Australian Grains Genebank. The Forum will commence with an evening event on Monday 14 March; the main science programme will be presented on 15–16 March 2016. The Forum will be a rare opportunity to bring together leading botanical and agricultural institutions, seed scientists and conservation and restoration experts to share ideas that showcase the importance of seed science to the future of plant conservation and food security in Australia. An exciting programme of local and international experts is planned, speaking on seed conservation, storage, preservation and germination.	More details on the National Seed Science Forum will be provided in the near future. Invited keynotes and a call for presentations will be announced soon. Visit the Forum web pages at: www.seedpartnership.org.au. Please email: info@seedpartnership.org.au to register for Forum announcements.

Auckland Botanical Society

Meeting: Tuesday 1 September at 7.30 p.m. for the Lucy Cranwell Lecture to be given by Dr Leon Perrie, Te Papa Tongarewa. **Venue:** Auckland Museum.	**Contact:** Ewen Cameron.
Field trip: 19 September to The Dome Walkway, Warkworth.	**Leader:** Maureen Young, email: youngmaureen@xtra.co.nz.

Waikato Botanical Society

Field trip: Saturday 12 September to Lake Arapuni, Waikato River, combined with Rotorua Botanical Society.	**See below for details.**

Rotorua Botanical Society

Field trip: Saturday 12 September to Lake Arapuni, Waikato River, combined with Waikato Botanical Society. **Meet:** the car park Rotorua at 8:30 am or the ramp at Jones Landing at the end of Lake Arapuni Road at 9:30am. You must tell the trip leader that you are coming by prior Thursday; the leader needs to know whether you are coming so that he can let you know, if necessary, if the weather is not suitable on the day and it is also possible that the meeting place for this trip may change. **Grade:** easy. **Cost:** donation for boat fuel.	**Leader:** Willie Shaw, ph: 07 345 5912 (hm) 021 757 522 (mobile), email: willie.shaw@wildlands.co.nz

Wellington Botanical Society

Field trip: Saturday 5 September to East Harbour Regional Park. **Meet:** 9.30 a.m. at bus terminus, Muritai Rd.	**Co-leaders:** Mick Parsons, ph: 04 473 1142 or 027 249 9663; Gavin Dench, ph: 04 387 9955 or 027 405 2987.
Meeting: Monday 21 September at 7.30 p.m. for a talk by Joe Zucarello, Associate Professor, School of Biological Sciences, VUW, titled 'What are *seaweeds? Macroalgal diversity in NZ.*'	**Venue:** Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade; enter building off Kelburn Parade about 20 m below pedestrian overbridge.

Nelson Botanical Society

Field trip: Sunday 20 September to Inches' Wairoa Valley (Threatened Plant Weeding). **Meet: c**hurch steps at 9.00 a.m., everyone must register with the leader by Friday, 18 September in case of cancellation and for our PLB.	**Leader:** Shannel Courtney, ph: 03 546 9922.
Meeting: Monday 21 September at 7.30 p.m. for a talk by Mark Moorhouse titled 'Native orchids - *Corybas* and *Caladenia*'.	**Venue:** Jaycee Rooms, Founders Park, Nelson.

Canterbury Botanical Society

Meeting: Monday 7 September, 7.30 p.m. for a talk by Professor Dave Kelly (University of Canterbury) titled 'Is the decline of bird populations threatening native plants, and can we fix it?'	**Venue:** Upper Riccarton Library, 71 Main South Road.
Field trip: Saturday 12 September to Te Pirita grassland and the recently discovered *Olearia adenocarpa* population**. Meet:** at the Yaldhurst Pub car park at 9.00 a.m. (for carpooling – 4WD essential) or at the corner of Te Pirita Rd and Rakaia Terrace Rd at 10.00 a.m. Places limited by space in 4WD vehicles. **Suitability:** moderate. B**ring:** your lunch, a thermos or water bottle, plenty of warm, windproof clothes.	**Leader:** Jason Butt, ph: 027 459 2011 to confirm attendance.

Te Aka Kakariki

Canterbury Plantout Day: Saturday 12 September in the Ararira/ LII catchment. Transport from various pick-up points, lunch morning and afternoon tea provided. **Cost:** $5.00, registration necessary by Monday 7 September.	**Register now at:** www.kakariki.org.nz.

Otago Botanical Society

Field trip: Saturday 5 September to Stevensons Bush Scenic Reserve. **Meet:** Department of Botany car park at 9.30 a.m.	**Contact:** John Steel, 021 2133 170, email: john.steel@otago.ac.nz
Meeting: Wednesday 9 September at 6.00 p.m. for the 13th Annual Geoff Baylis Lecture by Professor Steven Higgins, Department of Botany, University of Otago titled 'The Discovery of Slowness: Life in the Plant Lane'. The Geoff Baylis Lecture is held annually by the Botanical Society of Otago, in conjunction with the Botany Department. It is named in honour of Dr Geoff Baylis, the first Professor of Botany at the University of Otago.	**Venue:** Castle 1 Lecture Theatre, University of Otago (drinks and nibbles starting from 5.15 pm in the concourse).