



TRILEPIDEA

NEWSLETTER OF THE NEW ZEALAND PLANT CONSERVATION NETWORK

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

Postal address: P.O. Box 16-102, Wellington, New Zealand

E-NEWSLETTER: No 34. SEPTEMBER 2006

Deadline for next issue: Friday 13 October 2006

Message from the President

I am sure that everyone will join me in congratulating Peter de Lange on the occasion of him receiving the Allan Mere Award for 2006. This is in recognition of his outstanding contributions to botany in New Zealand. Well done Peter!

Taking about awards. Please note the call for nominations for the Network Awards for 2006. The information can be found below and needs to be sent off to arrive in Auckland by Tuesday 21 November. That is not long so do please think about these awards.

It is very good to see that more and more members are writing articles for the Newsletter. This month for example. Martin Conway writes about the 'fierce lancewood'. This is the very kind of article that I would like to see much more of. I am sure that many members have some very valuable information to pass on. That information may seem commonplace to you—but to others it could be just what they are looking for.

Not too long now to the Network AGM and the Conference (The Cheeseman Symposium) to be held in Auckland from Monday 20 to Wednesday 22 November. Have you registered? Go to the Network Website and find out more details. This is going to be a great opportunity to join in lots of discussions and to take part in some workshops. By the way—what do you know about Thomas Cheeseman?—apart from the fact that he was one of New Zealand's greatest botanists.

Finally, the 2006 annual vote for New Zealand's most favourite native plant is well on its way and already there have been some very interesting and exciting changes in position. What is your favourite native plant and why? You have up to five votes—so do take part and encourage local schools to take part. In past years many schools have taken part and have used the annual vote as an educational project about native plants. It is a great way for many young people to learn about how native plants—and indeed what are native and what are not natives.

Ian Spellerberg, Lincoln University

Plant of the Month

Plant of the month for September is the Range Restricted *Sporodanthus ferrugineus* (bamboo rush or giant wire rush). This species is currently 4th in the Network's Vote for your Favourite Plant competition. The species is confined to the North Island, where it once grew from Kaitia to the Waikato but is now extinct except in the Hauraki Plains and in the Huntly and Hamilton basins. It occurs in very acid, nutrient-starved, lowland, raised peat bogs, where along with *Empodisma minus* it is the main peat-forming, and often co-dominant species. It was threatened in the past by wetland drainage, which eliminated the species from 95% of its known range by 1970. All three remaining main populations are highly vulnerable to fire. The Network fact sheet may be found at: http://www.nzpcn.org.nz/nz_threatenedplants/detail.asp?PlantID=701



Sporodanthus ferrugineus.
Photo: Peter de Lange.

The Charleston gentian receives a helping hand



Gentianella scopulorum.
Photo: Julie Geritzlehner.

Charleston locals celebrated Conservation Week by giving one of New Zealand's rarest plants, the Charleston gentian, a helping hand. First collected by Westport chemist and botanist William Townson from Charleston's coastal cliffs around the turn of last century, the Charleston gentian, *Gentianella scopulorum* has probably always been rare. A recent taxonomic revision of New Zealand's gentians by Dr David Glenny of Landcare Research confirmed that the Charleston gentian was different to the shore gentian *Gentianella saxosa*, which is found in Otago and Southland.

Once it was realised that the Charleston gentian was a new species, a survey found that it was close to extinction with only 16 plants located. "At this point we began working to ensure that we didn't lose this species" says Julie Geritzlehner a ranger in DOC's Buller Area Office.

Seed was collected and plants grown at DOC's Motukarara Nursery. Following a hardening off period at a local nursery, new populations were established at Tauranga Bay and at new sites near the original collection sites. "In our annual flowering survey this year we'd managed to get the total population up to 94 flowering plants. The most encouraging result is that some of these plants have set seed and we have found seedlings nearby."

According to Jess Reedy, Conservation with Communities Ranger, "Conservation Week provided the perfect opportunity to involve the local community in the conservation of a species unique to this area." "Fifty more plants were added to the Charleston population and hopefully this summer their pretty white flowers will be seen dotted through the vegetation on Charleston's coastal clifftops."

Have you voted yet?

Votes are mounting in the 2006 Vote for your favourite Plant competition. Over 60 species have been voted for. Please log on and use all of your 5 votes and encourage your friends and family and colleagues to vote. Go to www.nzpcn.org.nz for more information.



Volunteers Joan Hamilton, Valda Kirkwood and Andre Gyax planting Charleston gentians on Charleston clifftops. Photo: Jess Reedy.

Network awards for 2006

Please make your nominations now for the Network plant conservation awards for 2006.

The award categories are: Individual; School; Local authority, Plant nursery and Community Group. The nomination form is available from the Conservation info/Awards area of the website and at the end of this newsletter. The awards will be made at the Network conference—the Cheeseman Symposium—in Auckland on Tuesday 21 November. For more information see the website or email info@nzpcn.org.nz

Peter de Lange receives Allan Mere award

Peter de Lange (Network Vice President) is the recipient of the Allan Mere award for 2006. The Allan Mere Award is administered by the NZ Botanical Society. The Award is made annually to a person or persons who have made outstanding contributions to botany in NZ, either in a professional or amateur capacity.

New names for New Zealand filmy ferns

Ebihara et al. (2006) have just published a worldwide revision of the Hymenophyllaceae (filmy ferns) based mainly on both molecular sequences obtained from the chloroplast gene *rbcL*, (including the following regions *rbcL-accD* and *rps4-trnS*) and morphology. From their work they conclude that subdivision of *Trichomanes* is necessary to maintain monophyly. A major departure from past treatments is the recognition that kidney fern (known here as either *Trichomanes reniforme* G.Forst or *Cardiomanes reniforme* (G.Forst.) C.Presl) is better placed within *Hymenophyllum* Sm., and, as the species epithet “reniforme” is already occupied within that genus, a new name *Hymenophyllum nephrophyllum* Ebihara et I.Iwats. is proposed.

In addition, *Trichomanes venosum* R.Br. is reinstated as the type of the revived genus *Polyphlebium* Copel., and both the endemic *T. colensoi* Hook.f., and indigenous *T. endlicherianum* C.Presl. are transferred to that genus as *P. colensoi* (Hook.f.) Ebihara et K.Iwats and *P. endlicherianum* (C.Presl.) Ebihara et K.Iwats, respectively.

The remaining two species of *Trichomanes*, *T. elongatum* A.Cunn. and *T. strictum* Menzies ex Hook. et Grev. have been moved to the genus *Abrodictyum* C.Presl. as *A. elongatum* (A.Cunn.) Ebihara et K.Iwats. and *A. strictum* (Menzies ex Hook. et Grev.) Ebihara et K. Iwats. respectively.



Trichomanes (*Polyphlebium*) *venosum*. Photo: Jeremy Rolfe.



Hymenophyllum frankliniae (formerly *H. ferrugineum*). Photo: Jeremy Rolfe.

Only one *Hymenophyllum* present in New Zealand, *H. ferrugineum* Colla is affected by their treatment.

The name *H. frankliniae* Colenso is now revived for the New Zealand plants previously known as *H. ferrugineum*. *H. frankliniae* is regarded as endemic to New Zealand.

While the research offers an improvement on past attempts to split the family, further work is needed to justify some of these changes, particularly why *Trichomanes* has been split into segregate genera when the molecular sequence data shows much the same levels of divergence in *Hymenophyllum* which are treated at subgeneric and sectional level.

Therefore, until stronger evidence is produced to support the segregation of *Trichomanes* proposed by Ebihara et al., the NZPCN continues to use the genus *Trichomanes* for *T. venosum*, *T. colensoi*, *T. endlicherianum*, *T. elongatum*, and *T. strictum*.

The fierce lancewood – *Pseudopanx ferox*

MJ Conway, Palmer Rd, RD1 Brightwater



Pseudopanx ferox juvenile.
Photo: Jeremy Rolfe.

The fierce lancewood is described as being “fairly rare” and this is certainly true for Nelson, Tasman and the Marlborough Sounds. There are a few trees at Tarakohe and Paynes Ford in Golden Bay, and at Wairoa Gorge and Delaware Bay in Nelson. Small populations survive in the outer Marlborough Sounds on Rangitoto, Chetwode, Titi and Arapawa Islands and on the mainland west of Port Ligar. On D’Urville Island there is but one known tree!

These few remaining populations are all confined to inaccessible and remote sites which suggests that the fierce lancewood was once more common, particularly along the coastline. Loss of habitat through the development of land for pastoral farming and the effect of animal pests are likely reasons for its decline.

Ironically, the fierce lancewood is better known in cultivation than in nature. Here is a tree with character that is increasingly popular in parks and gardens where it revels in poor soils and exposed situations. In 1997 a visit was made to Puangiangi Island (one of the Rangitoto group) where mature trees and young seedlings were

noted. More recently, seeds were collected, nursery raised and now there are more than 100 trees ready for planting. Interestingly the leaf shape and colour is distinctively different from those more commonly found in cultivation, reinforcing the policy of eco-sourcing seed.

There are many opportunities for restoring the fierce lancewood in the outer Marlborough Sounds and on D’Urville Island and the project is limited only by the small number of available plants. Land protected by QEII National Trust covenants will be targeted in the first instance because these sites are well managed and regularly monitored.

The fierce lancewood restoration project is the third to be adopted by the Tasman Environmental Trust as part of its programme to restore regionally rare plants.

References

- Brownsey, P.J.; Smith-Dodsworth, J.C. 2000: New Zealand ferns and allied plants. David Bateman Ltd., Auckland.
- Ebihara, A.; Dubuisson, J-Y.; Iwatsuki, K.; Hennequin, S.; Ito, M. 2006 : A taxonomic revision of Hymenophyllaceae. *Blumea* 51: 221–280.

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):

Botanical Society of Otago - Living in a high CO₂ world: Impacts of global climate change on aquatic ecosystems. Thursday, 14 September 2006

Start time: 6:00 PM. The John Smaillie Tennant Lecture 2006. A talk by Professor John Beardall, School of Biological Sciences, Monash University, Australia. This is a public lecture presented by the Division of Sciences and the Department of Botany. He has broad interests ranging from the molecular mechanisms of photosynthesis and membrane transport to the primary productivity of oceans, but his interests in carbon have led him inexorably towards trying to understand the consequences, for aquatic systems, of the current crisis of anthropogenically-induced climate change. Note special venue: At the Union Street Lecture Theatre (corner of Union and Great King Streets). All BSO members, staff, students, and interested members of the general public are welcome to attend. Light refreshments will be served in the Botany Department Staff Room at 5:30 p.m. Contact [Trish Fleming](mailto:Trish.Fleming@otago.ac.nz), phone: (03) 479 7577.

Rotorua Botanical Society Field trip: Saturday, 16 September 2006 – Okareka Mistletoe Restoration Project Host Planting / Weed Control Day

Leader: Paul Cashmore 07 348 4421 (hm), 349 7432 (wk). Meet: Ex Okareka store 8.45 a.m. Activities on this day will focus mainly on planting *Ileostylus micranthus* host trees on the existing and new planting sites.

Botanical Society of Otago Field trip: Saturday 16 September 2006 – Waipori River Valley

Start time: 8.30 a.m. An exploratory visit to a patch of beech forest on the slopes of the Maungatua Range. Find out what plants and winter fungi inhabit this silver beech forest remnant. Trip leaves 8.30 a.m. from Botany Carpark, returning c. 4:00 pm. Contact mike.esr@xtra.co.nz. Mike Thorsen, phone: (03) 453 6800.

**Wellington Botanical Society – Evening meeting – Monday, 18 September 2006:
AP Druce Memorial Lecture: Exotic plant invasions, the other half of the flora.
Speaker: Peter A. Williams, Landcare Research, Nelson**

“When I started working with Tony Druce about 40 years ago we seldom looked at the naturalised flora. But Eric Godley, then the Director of Botany Division, DSIR, was rather taken by the spread of broom in the Hanmer area. He employed me to study these new communities. This lecture presents some of the things I have learned during a working life of studying the ecology of naturalised flora; where it came from, how it spread, the new communities it has formed, how these differ from the native communities, what the native birds think of it, and what the future holds.”
7.30 p.m. at Victoria University, Wellington, Lecturer Theatre M101, ground floor Murphy Building, west side of Kelburn Parade. Enter building off Kelburn Parade about 20m below pedestrian overbridge.

**Botanical Society of Otago - Co-evolution on the Galapagos Islands.
Wednesday, 27 September 2006**

Start time: 5.20 p.m. A talk by Drs Allison and John Knight. The Galapagos Islands rose steaming from the equatorial Pacific Ocean over the last 10 million years. Their sterile volcanic slopes were gradually populated by a limited range of plants and animals, mainly those that could cross the 1000 km gap from the nearest land. As Darwin found, the fascinating thing is that on each island a different combination of plants, pollinators, herbivores and frugivores has evolved together. Humans and grazing mammals arrived late on the scene; there are other parallels with New Zealand. At the Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel. Use the main entrance of the Benham Building to get in and go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt as we have to hold the door open. Contact [Allison Knight](mailto:Allison.Knight), phone: (03) 479 7577.

Waikato Botanical Society Field trip - Peter Morris gully restoration & Botanical Society Native Threatened Plant Collection working bee #4. Sunday, 1 October

A visit to the 20 year old gully restoration project of Peter Morris in Mangaharakeke gully, on the edge of Hamilton at Newstead/Matangi. The six acres of restoration contains a wide variety of site types—from dry bank top areas to very wet backswamp so there is a large range of species to see. After lunch we return to another working bee to weed the collection, plant out and propagate. Bring your old gardening clothes. Contact: Liz Grove ph. 07 846 0965 (hm) or eg3@waikato.ac.nz Meet: 9.30am University of Waikato Gate 9, from here we will proceed to Peter Morris, returning to the threatened plant garden site in the glasshouse compound at the University at 1pm.

**Botanical Society of Otago - Banks Peninsula's Botany; the past, the present and the future.
Wednesday, 11 October 2006**

Start time: 5.20 p.m. A talk by Hugh Wilson, 5th Geoff Baylis Lecturer. Banks Peninsula is a unique part of NZ. It has suffered massive changes to its flora and fauna because of two waves of human settlement, Polynesian and European. Hugh will look at Banks Peninsula in pre-human times, at what happened as humans impacted on it, what it is like now and what it might be like in 100 years time. Hugh is guardian of more than 1000 hectares, 1%, of Banks Peninsula. He manages Hinewai Reserve under a policy of minimum interference and is documenting the reappearance of native vegetation. NOTE SPECIAL VENUE, Castle 1 Lecture Theatre, Otago University. Contact [Allison Knight](#), phone: (03) 479 7577.

Rotorua Botanical Society Field trip: Saturday, 14 October – Lake Rotokawa/Rainbow Mountain

Leader: Chris Bycroft 07 346-3647 chris@wildlands.co.nz. Meet: The carpark at 8.30 a.m. or Rainbow Mountain carpark 9am. A visit to one of two geothermal sites between Rotorua and Taupo. Lake Rotokawa Conservation Area has a large area of prostrate kanuka and interesting geothermal features. It has been mined for sulphur in the past. *Dicranopteris linearis* and *Nephrolepis flexuosa* (previously sp. 'thermal') have recently been found nearby to the north of the DoC administered area and may also be present. Rainbow Mountain is an iconic mountain near the Murupara turnoff with extensive areas of geothermal vegetation on steaming slopes. A good time of the year for looking for a range of orchid species which are well known from this reserve including *Caladenia atradenia*, *Calochilus* and *Thelymitra* spp.