



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

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Deadline for next issue: Monday 14 November 2005

Message from the President

I have recently returned from a few weeks in the U.K. The main purpose was to take part in some collaborative research programmes and look for new links between New Zealand and the U.K. While there, I travelled extensively throughout England by train and I could not help but be reminded of the extensive tree cover in the landscape. In both urban landscapes and agricultural landscapes, trees and hedges were very common. The U.K. is about the same area as New Zealand but has about 50 million more people. Later, on return to New Zealand, as I flew over the south Island towards Christchurch, I could not help but think how barren the landscape looked—and dotted with patches of introduced trees. On the brighter side, I came back to find many native plants in flower. Who ever said that native plants lack colour.

No doubt many people will be voting for their favourite native plant in the 2005 annual vote. The number of votes cast so far is very impressive. The top ten is interesting reading. I urge everyone to vote and please help to bring this annual vote to people's attention and do please encourage schools to take part. The annual vote is an enjoyable exercise but it also has considerable educational value.

Professor Ian Spellerberg, Lincoln University

Help urgently needed – Opportunity to bid for a dinosaur!!

Please help raise money for the New Zealand Plant Conservation Network by encouraging individuals and companies to join a joint bid for “*The Given Collection*” of Wollemi pines to be auctioned later this month. The Wollemi pine is considered one of the world's rarest tree species and was discovered by David Noble in a narrow canyon system, northwest of Sydney, Australia in 1994.



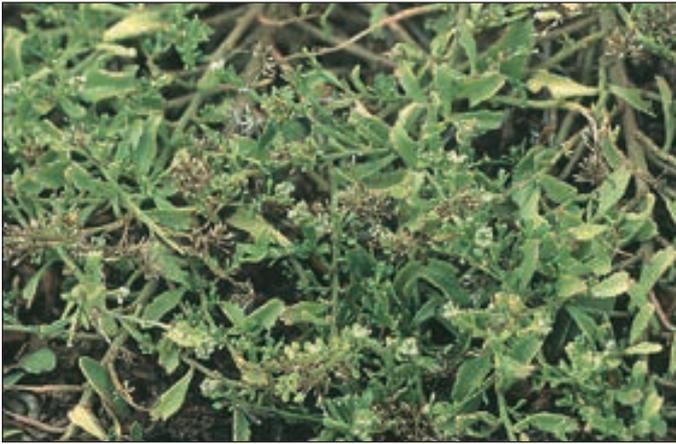
“*The Collectors Edition*” and first generation of 292 Wollemi pines (*Wollemia nobilis*) will be auctioned by Sotherby's on 23 October 2005 in

Sydney. One grove of five trees is named “*The Given Collection*” after David Given, Network Council member and global plant conservation expert. Proceeds from sale of this grove will go to the Network. We plan to arrange for a joint bid to bring this grove to New Zealand and split them up for planting and public display at each of New Zealand's main botanic gardens (Auckland, Hamilton, Wellington, Christchurch and Dunedin). If you, your friends or your company wants to pledge money to the joint New Zealand bid and have your name or company logo included in the plaque beside each tree please register with us at:

wollemi@nzpcn.org.nz. For further information about the auction visit www.wollemipine.com/



Plant of the Month



Lepidium oleraceum. Photo: Gillian Crowcroft.

Plant of the month for October is the nationally endangered *Lepidium oleraceum* (nau or Cook's scurvy grass). This bushy, leafy, aromatic herb up to 1 m tall is a plant of fertile soils on coastal slopes, often associated with seabird roosts and nesting sites, rocky shorelines and gravel beaches. It was once locally common on the coast and islands throughout New Zealand, but now largely restricted to offshore islands. It is dependent on high-fertility soils and regular cycles of animal induced disturbance, the decline in onshore and nearshore seabird

colonies, as a consequence of rat predation, has seriously reduced the range of suitable habitats for this species. In the vote for your favourite plant competition this species is currently in sixth place although amongst overseas voters it is ranked number 1. The Network fact sheet may be found at the following link: http://www.nzpcn.org.nz/vascular_plants/detail.asp?PlantID=74

Have you seen this plant?

First Didymo survey results negative but caution still needed.

Biosecurity New Zealand announced last week that surveys of the Northern third of the South Island have not found any more rivers affected by the invasive Didymo alga. Several samples from rivers in central South Island, the Waitaki, Tekapo, and Ohau Rivers, and the Travers River in the Buller catchment, which previously had been reported as possibly having Didymo, have not proved to have it. Formal surveying of these areas will take place over the next few weeks. The only place in the Buller where Didymo has been confirmed was the original find just downstream from Lake Rotoiti (Nelson). Survey results from elsewhere in the Buller catchment were negative. Biosecurity New Zealand chief technical officer Peter Thomson said that while the negative results from the 110 tested sites were great news, cleaning precautions were still necessary for people using equipment in more than one river, and would remain that way for the foreseeable future.



Didymo. Photos: Biosecurity New Zealand.

Surveys have also been undertaken in the North Island in the Turangi, Taupo and Tongariro area and more surveys in the North Island and the southern third of the South Island are planned. **To date the only rivers to have tested positive for Didymo are the Mararoa, upper and lower Waiau, Oreti, upper Clutha, Hawea and the Buller.**



Sophora chathamica.
Photo: Geoff Walls.

Kowhai in the lead—remember to vote for your favourite plant

The third national Vote for your Favourite Plant competition is well underway. This project is being done in conjunction with the Isaac Centre for Nature Conservation. You can vote via the Network website (see www.nzpcn.org.nz). Current voting has kowhai (*Sophora chathamica*) well in the lead. Over 800 votes have been cast and over 135 species have received votes. Please encourage your friends and colleagues to vote also **and remember to use all of your 5 votes**. Voting closes 30 November 2005. Results of this voting will be published in the Network newsletter shortly after.

Have you found an extinct plant?

Fact sheets for all New Zealand's extinct vascular plants are now complete on the Network website thanks to the work of Peter de Lange and Leon Perrie, and the assistance of Auckland Museum and Te Papa Tongarewa. To view the fact sheets go to "Search for a plant" and select "Extinct" from the 'Plant Status' drop down menu. The extinct plants are: *Lepidium obtusatum*, *Logania depressa*, *Myosotis traversii* var. *cinerascens*, *Stellaria elatinoides* and *Trilepidea adamsii* (the species used as the Network logo).

Type specimen of *Logania depressa*, held at Kew.



Moving plants around – plant translocation workshop results

Bec Stanley, Department of Conservation

Two (identical) workshops were run in August 2005, attended by 56 people, canvassing community opinion about moving plants around/plant translocation. Discussion covered eco-sourcing, plant biogeography, genetics (inbreeding, outbreeding, hybridisation, taxonomy) as well as biosecurity, ecological interactions, technical aspects of what plants need to become self-sustaining, planning and experimental design. A diverse group of people attended, including amateur and professional botanists, ecologists, students, nurserymen/women and plant enthusiasts from local and regional councils, botanic gardens, Auckland University, UNITEC, DOC, island and mainland restoration groups, Auckland Botanical Society, Forest and Bird and ecological consultants.

Groups were given case studies relating to moving plants around in Auckland. Which species to move where and why came down to a balancing act: the need for projects to include well known plants that attract funding and generate public interest with concerns about eco-sourcing/scientific integrity and site selection e.g. should we use offshore islands as plant refugia? Balancing technical and ethical issues with pragmatism was a clear theme that came out of the workshop – i.e. the need for threatened plant recovery, as many of our species have few places they can go, and most are now outside their natural dispersal ability because they are now extinct over much of their range. The willingness of people to participate in recovering our flora was apparent. There were clear feelings that "if we don't act now it might be too late". There was a desire to harness the energy of community groups as they can do "habitat gardening" to ensure plants stay at sites we have let them disappear from in our ignorance. This involvement and education was seen as a way of fostering environmental and plant conservation.

Threatened aquatic moss found in an eel tank!



Fissidens berteroi. Photo: Andrew Townsend.

Fissidens berteroi (Mont.) C.Muell., a distinctive, large aquatic moss is currently known in New Zealand from only two geographic areas, Auckland City and on the western side of Lake Wairarapa. In Auckland only one population is now known, that resides at the mouth of a large outlet pipe draining a spring in the middle of suburbia near downtown Onehunga. Here amidst the rubbish and pampas grass this tiny population just manages to hang on during times of chronic water shortages. Its habitat is presumed to be a relict of the once important Onehunga Springs which helped (and still do at times) supply the growing Auckland City's water needs. Another population, located in dank water draining the Auckland Zoo in 1994, disappeared almost as mysteriously as it was discovered. As far as is known it is now extinct there. The Wairarapa locations occupy equally precarious habitats, just two small roadside populations where plants grow in shaded pools and slow flowing water underneath road bridges. Discovered there in the 1970s by the

aptly named Tom Moss, who was then in the process of checking out nesting Welcome Swallows, they remain in a serious situation - should the streams flood too much these populations will be lost, should the streams dry up, as they are prone to do, then again the species will be lost.

Just why *Fissidens berteroi* should be so scarce defies current understanding. Herbarium records show that it was once more widespread here with at least four other locations (all collected prior to 1940) spanning from Northland to Nelson and Marlborough. Though it may still occur in these areas, recent surveys have failed to find plants. Of its status in the South American and Australian part of its range we know very little.

Thus it came as somewhat of a surprise to find a large thriving population of *F. berteroi* gracing the stone walls of the Eel Tank in Kelly Tarlton's Underwater World, Okahu Bay, Auckland City. Here upwards of 50 distinct patches grow submerged in the semi-shade of a tank supporting two huge short-finned eels and a koi carp. Although rarely fertile the moss is thriving, so much so that it is occasionally trimmed back by the Kelly Tarlton Staff. Inquiries as to the origins of the plants have so far been unsuccessful. Those responsible for the Eel Tank maintenance are as mystified as the person who spotted the occurrence in the first place NZPCN Vice President Peter de Lange. Mr. Andrew Christie of Kelly Tarlton's states that the only item introduced into the tank, some ten years ago, was a large log removed from a local stream. Unfortunately records were not kept of where exactly the log came from, and the staff member responsible has moved on. Even more notable is that the log does not support the moss, only the artificial rock wall does. So whether the log initially had small plants on it or spores when it was obtained is unclear. What is good news, is that this highly threatened moss is being successfully cultivated, and says Mr Christie, koi carp don't eat it.

Kelly Tarlton staff pride themselves on their conservation ethic and world leading aquatic animal management but they now can add to their expertise that they are apparently the first people to successfully—albeit it unwittingly—cultivate a thriving, sexual and recruiting population of *Fissidens berteroi* in New Zealand.

Call for articles for Australasian Plant Conservation

The Australian Network for Plant Conservation is now inviting articles (fewer than 1200 words) for the next issue (Dec-Feb). The theme is Threatened Ecological Communities: their conservation, management and restoration. Deadline for the Dec–Feb issue is **Mon 28 November**. They also welcome book reviews, titles of interesting recent publications or resources and where they can be found, conference, workshop, courses and fieldwork announcements, details of relevant publications, information resources and websites. Please send submissions to the ANPC National Office by fax, mail, email or on a diskette (The Australian Network for Plant Conservation Inc (ANPC), GPO Box 1777, Canberra ACT 2601, email: anpc@deh.gov.au). If sending articles electronically, please send as a Microsoft Word or rich text format. Electronic images need to be at least 300 dpi resolution, submitted in at least the size that they are to be published, in tif, jpg or gif format.

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):

Wellington Botanical Society evening meeting – The DNA revolution in botany Monday 17 October

Speaker: Joe Zuccarello, new Senior Lecturer in Biological Sciences, Victoria University, has worked on seaweeds for a long time. The talk will cover the nature of molecular data (what is DNA, and how do we get information from it), methods of using this DNA data to answer taxonomic questions, and examples of its utility in revealing plant diversity and evolution.

International conference on the implementation of the CBD Global Strategy for Plant Conservation: October 22–25 2005.

To be held at the National Botanical Gardens of Ireland at Glasnevin (near Dublin, Ireland). To find out more please click the on the link: <http://www.plants2010.org>. (and follow ‘registration’). Formal registration through the web should be available on Thursday June 16.

Botanical Society of Otago. Ghosts of Indian Princes—4th Annual Geoff Baylis Lecture. Wednesday 26 October 2005.

Start: 5:10 p.m.. [Assoc. Prof. Kevin S. Gould](#) will present the 4th Annual Geoff Baylis Lecture with a talk entitled Ghosts of Indian Princes - The Remarkable Properties of Red Pigmented Plants. The eastern states of North America play host each year to one of nature’s most spectacular phenomena. From Maine to North Carolina a rich mural of reds, carmines, crimsons, scarlets, and purples accompanies the leaves of deciduous trees as they embark on the processes leading to winter dormancy. New Zealand, too, has its share of vermilion spread across all orders of plants from the liverworts to the angiosperms. Such displays have long been considered an “extravagancy without a vital function” but recent research suggests that the red pigments – anthocyanins – can in some instances be critical for plant survival. Plus: Audrey Eagle Botanical Drawing Competition – Display and Prize Giving. NOTE SPECIAL VENUE: Castle 1 lecture theatre, Otago University. Keep this date free. Contact [Robyn Bridges](#), phone: (03) 479 8244.

Wanganui Museum Botanical Group – Evening meeting. How to look at Grasses: a practical evening on Family Poaceae. 1 November.

Start at 7p.m. in Museum Classroom. Our practical evenings based around a plant family have proved popular in the past. As a family, grasses are familiar to all of us as useful plants (pasture, lawns, ornamental plants, and sources of materials like bamboo, sugar, cereals). Identifying them can be a problem, even with the Flora of NZ Vol. 5, devoted to grasses. The workshop will show you what features to look for, in order to identify grasses for yourselves. Please bring pen/pencil, hand lens if you have one, and any grasses in flower or fruit. Guide: Colin Ogle.

Botanical Society of Otago— Weekend field trip to the Catlins. Saturday 5 November, 2005

Start time: 8:30 AM. Saturday will be spent at Purakaunui Bay and its sandy beach flanked by enormous sandstone cliffs, followed by a look at the rare alluvial forest of Purakauiti Stream with its giant specimens of *Pittosporum obcordatum*, *Melicytus flexuosus* and *Olearia lineata*. Sunday will be based around Nugget Point to check out forest restoration and *Olearia hectorii* recovery at Otanomomo Scientific Reserve on the way home. Accommodation on Saturday night will be at Nugget Point Lighthouse Keepers house (numbers limited). Day trippers are welcome either day. To reserve accommodation or find out more contact John Barkla ph. 476 3686 (evenings) by Wednesday 2 November. Leave from Botany carpark at 8.30 am Saturday.

Wellington Botanical Society Field trip – Hutt Gorge, Pakuratahi Valley. Sat 5 November

Botanise the Swingbridge Track, Terrace Walk and Pakuratahi River Walk. Compare mixed podocarp-broad leaf and beech forest communities. Map S26 Carterton and GWRC Kaitoke Regional Park brochure. Meet: 9 a.m. Pakuratahi Forks carpark. Leader: Pat Enright 495 0781 (w), 06 308 8278 (h). Deputy leader: Olaf John 479 7605.

Waikato Botanical Society field trip – Whangamarino. Sunday 20 November

A re-run due to cancellation last year. Visit the peatbogs of Whangamarino wetland and learn about conservation issues at the site including water level regulation, pest fish, native fish, invasive weeds, and threatened plant management. Numbers are limited on this trip to minimise damage at the site, please register your intention to attend with Andrea Brandon abrandon@doc.govt.nz or ph 858 1018. Bring gumboots! Contact: Shannon Fergie sfergie@doc.govt.nz or ph 07 850 8348 (wk) and Andrea Brandon abrandon@doc.govt.nz or ph 858 1018. Meet: Landcare carpark at 9 am

**Wellington Botanical Society evening meeting – BotSoc Student Travel Grant recipients
Monday 21 November**

Speakers: Prof. Phil Garnock-Jones, Biological Sciences, VUW, will introduce the 6 winners of BotSoc's recent Student Travel Grants. Steven Cox, MSc student VUW: The plant's dilemma. Sarah Newman, MSc student VUW: Is manuka locally adapted to moisture regime? Veronica Howell, MSc student, VUW: Harakeke pollination – the birds or the bees? Vincent Woo, PhD student, VUW: *Rhabdothamnus* ramblings: adventures in discovering new things about New Zealand's only gesneriad. Rowan Brookes, MSc graduate, VUW: Reproduction of *Aciphylla* (talk delivered by Dr Linley Jesson, as Rowan is now in Melbourne doing her PhD).