



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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Message from the President

I was reminded about Arbor Day (or Arbour Day) by the report below about the reforestation milestone for black robins. As you will read below, the 100,000th tree has been planted on the remote Mangere Island in the Chatham Islands. That is a lot of trees and that reflects a huge conservation effort over many years. Arbor Day is celebrated on June 5 in many locations throughout the World. Launched in 1872 in the USA, it marks the start of tree planting events that take place at intervals throughout June, and not just on June 5. I have no doubt that many readers of this newsletter will have taken part or are planning to take part in some of the many Arbor Day events around New Zealand. As it happens, June 5 is also World Environment Day.

What does Arbor Day mean to you? Do you have childhood memories of your school going on a tree planting exercise? If you do, have you ever been back to see what the trees look like? I suggest that there should be more discussion about what Arbor Day is all about and what it is that we are trying to achieve. It seems that Arbor Day has become a topic of interest to some politicians. There has been some concern about the apparent net loss of forest trees in New Zealand. Seems that more trees are being harvested than are being planted. What are the implications of that net loss? Should Arbor Day be more about native trees and restoring our native heritage. Perhaps we could consider renaming Arbor Day. If you agree, what would you suggest?

cont. next page

PLANT OF THE MONTH – *Austrofestuca littoralis*



Austrofestuca littoralis. Photo: Jeremy Rolfe.

Plant of the month for May is *Austrofestuca littoralis* (sand tussock, hinarepe). This coastal dwelling grass is found in both North and South Islands, and across the Tasman in temperate Australia. It has fine, rolled yellow-green leaves that fade at the tips to silver; older leaves dry to a golden-straw colour. Barley-like seed heads that grow no longer than the leaves are produced in summer. The seed is best sown fresh in a free draining mix, and you can also divide mature plants in autumn.

Hinarepe grows in dunes and rocky soils close to the shore where it can be confused with the introduced *Ammophila arenaria* (marram grass), which grows in the same habitat. Competition and browsing along with coastal development and vehicle damage mean that hinarepe is in decline. Browsing and competition with marram grass is believed to have caused the loss of the species from the Chatham Islands where it was formally abundant.

The Network fact sheet for *Austrofestuca littoralis* can be found at:

www.nzpcn.org.nz/vascular_plants/detail.asp?PlantID=152

cont. from p. 1.

In my opinion, Arbor Day should be all about planting native trees and restoring our natural heritage. Not that we should limit the planting of native trees to June and, indeed, in a recent submission to Selwyn District Council, I suggested that the Council adopt a policy of planting only native trees on public land. The main reason for suggesting this is to help offset the historical loss of native trees.

Arbor Day is all about trees. What about other plant life and are there other 'plant days'? There are indeed. Did you know, for example, that May 18 was 'Plant Conservation Day'. This 'Day' is all about celebrating the world's plants and taking action to conserve, protect plants for people and the planet. The main organisation behind 'Plant Conservation Day' is Botanic Gardens International (BGCI) along with the Association of Zoological Horticulture. I am not sure to what extent botanic gardens in New Zealand promote 'Plant Conservation Day'. I did not see anything in the newspapers. If you have any news about botanic gardens and 'Plant Conservation Day', please let us know.

In this month's newsletter there are some very useful reports by Eric Scott about recent articles in the ecological literature. If I might suggest, there is an opportunity for many readers of this newsletter to contribute reports about articles in the ecological and plant science literature. Indeed this newsletter could play a very valuable role in helping to promote reports from recent plant conservation research. "Don't have time" is no excuse. Communicating results of research to a wide readership is mandatory for all people engaged in research.

The Rotorua Botanical Society had its 25th Anniversary field trip in February. I wish that Society continued success and support. I wonder how many other local 'bot. socs' will soon be celebrating a milestone. We would love to hear from you.

Finally, if I may indulge myself before hopping on a plane to Sydney for an environment meeting, I am delighted to report that Canterbury University Press has agreed to proceed with a reprint of *Going Native: making use of New Zealand plants*. Published in 2004, this book quickly sold out and there has been a demand for a reprint for some time. I am sure that my co-editor, the late, dear David Given would have been very pleased!

*Ian Spellerberg
Lincoln University*

Spotted an error on our website?

Though NZPCN strives to ensure there are no errors in the plant fact sheets before they are loaded, mistakes do occur. In order to correct them, we need to know about them. Bec Stanley edits the fact sheets systematically but, because she does this as a volunteer, they are not all going to be edited overnight. If you spot an error before Bec does, please email her and she will fix it immediately. Contact Bec on email: Rebecca.stanley@arc.govt.nz.

Native ecosystem restoration trial report

Eric Scott, NZPCN (mescott@clear.net.nz)

In the latest issue of the *New Zealand Journal of Ecology*, Sullivan et al. (2009) report on a trial conducted in Waitakere City to investigate ways to restore native ecosystems. In the paper, the authors noted that restoring native vegetation and its associated species is desirable both for cultural and ecological reasons. The study involved four sites selected to provide a gradient of increasing distance from substantive remnants of native vegetation. This treatment was to ascertain the degree to which propagules from nearby established forest contributed to the restoration. Two groups of plants were used: those with bird-dispersed fruit (cabbage tree, karamu, mahoe, mapau, kohekohe and lemonwood) and wind dispersed species (manuka, koromiko and houhere), to establish the importance of the species mix in the colonisation of wild native (and non-native) species into the plots. Finally, two planting treatments were used: high density into ripped ground or low density in

a 10 cm mulch. The trial was set up in 1999 and results recorded annually. The report covers the first four years of the trial.

After three years, woody weeds were a major problem, with those > 50 cm tall reaching densities over 17 times that of the established wild woody native species of any height. At this time, the sparse planting method with mulch at this time resulted in higher native plant survival and faster plant growth. However, after four years the more intensive method resulted in a denser canopy and 2.8 times reduction in woody weed establishment. Many bird-dispersed species colonised the plots but there was no significant difference between the plots with bird-dispersed fruits and the others. The authors suggest that this may have been a result of their small plots. Colonisation by native species was particularly high at the sites 100 m or less from existing patches of native vegetation, which the authors claim suggests that even small patches of native vegetation in urban landscapes will be valuable as seed sources for accelerating native plant establishment at nearby receptive sites.

Anyone currently involved in a restoration project or perhaps planning to become involved would do well to read the whole paper, which may be found at:

www.nzes.org.nz/nzje/new_issues/NZJEcol33_1_60.pdf

Reference

Sullivan, J.J.; Meurk, C.; Whaley, K.J.; Simcock, R. 2009: Restoring native ecosystems in urban Auckland: urban soils, isolation, and weeds as impediments to forest establishment. *New Zealand Journal of Ecology* 33(1): 60-71.

Wetland conservation

Eric Scott, NZPCN (mescott@clear.net.nz)

After the emphasis in the last issue of *Trilepidea* on wetlands it is perhaps fitting that the major review article in the latest issue of the *New Zealand Journal Ecology* concerns the conservation of wetlands (McGlone, 2009). In his article, McGlone reviews the postglacial history of New Zealand wetlands and considers the implications for their conservation. In his concluding remarks, McGlone notes that wetlands have the best documented and best understood history of any New Zealand ecosystem. Yet, he claims, this is an underutilised resource and cites two recent publications (Johnson and Gerbeaux 2004; Hunt 2007) to support that claim. McGlone emphasises in his article the use of historical data to inform goals for wetland conservation. He says that even if historical states are not suitable endpoints, the choice of endpoints ought to be made with the history in mind.

McGlone claims that, now that environmental change is accelerating due to pervasive human influences, the role of wetlands as archives of local and regional environmental changes has never been more important. He ends with "Wetlands need preservation as archives, which will, as the science of palaeoenvironmental studies advances, become ever more valuable."

All those responsible for our wetlands or even just interested in them and their conservation would do well to read this article and act on its messages. It may be found at: www.nzes.org.nz/nzje/new_issues/NZJEcol33_1_1.pdf



Carex secta and *Azolla filiculoides* in a southern Wairarapa wetland. Photo: Jeremy Rolfe.

References

Hunt, J. 2007: *Wetlands of New Zealand: a bitter-sweet story*. Auckland, Random House.

Johnson, P., Gerbeaux, P. 2004: *Wetland types in New Zealand*. Wellington, Department of Conservation.

McGlone, M.S. 2009: Postglacial history of New Zealand wetlands and implications for their conservation. *New Zealand Journal of Ecology* 33(1): 1-23.

Reforestation milestone for black robin/biodiversity hotspot

A milestone has been achieved in a 30-year effort to restore the habitat for the Chatham Islands black robin, one of the world's most famous and endangered birds. Last weekend the 100,000th tree since 1991 was planted on the remote Mangere Island in the Chatham Islands archipelago. Black robins were moved there from a nearby smaller island by the former Wildlife Service in the 1970s, in a last ditch attempt to save the species from extinction. Population numbers had plummeted to just five birds as a result of predation by cats.



Looking across Mangere Island to Little Mangere Island.
Photo: John Sawyer.

Work to restore the island has been going on for more than 30 years. Recently, it has been the focus for intensive restoration and revegetation to recover forest and provide habitat for the robins. Chatham Island akeake trees (*Olearia traversiorum*) have been raised from seed and cuttings collected from nearby islands and then transferred to Mangere. The work was coordinated by the Department of Conservation but much of the planting has been done by the local community especially Liz and Bruce Tuanui. Bruce was among the six people present for the planting of the

100,000th tree last weekend. "Being part of the enhancement of the conservation values and seeing the change over the 16 years has been extremely rewarding," says Bruce Tuanui.

The island is also home to many of New Zealand's other threatened animals and plants, including Forbes' parakeet, the Chatham Island forget-me-not, Cook's scurvy grass and Chatham Island tui, all of which are on the brink of extinction. "This island programme has demonstrated the difference people can make to their environment by planting locally sourced trees," says DOC's Chathams Area manager Ken Hunt. "The work going on here is outstanding and will benefit New Zealanders and New Zealand wildlife for years to come."

Rotorua Botanical Society 25th anniversary field trip and celebration

Sarah Beadel, Rotorua Botanical Society (Sarah@wildlands.co.nz)

The Rotorua Botanical Society celebrated its 25th Anniversary on 14 February 2009. The day started with a very well-attended field trip to Waimangu Scenic Reserve. The weather was very kind - not too hot and not too cold. In true Rotorua Botanical Society tradition, trip participants included the very young (Simon Gillies, 10 months old).

Waimangu Scenic Reserve is one of the geothermal jewels in the Bay of Plenty, containing luxuriant populations of several ferns that are known only from geothermal areas in New Zealand: *Dicranopteris linearis*, *Christella* aff. *dentata* ("thermal"), and *Nephrolepis flexuosa*. Other species of interest seen included *Psilotum nudum*, prostrate kanuka (*Kunzea ericoides* var. *microflora*), and *Hypolepis dicksonioides*.

As well as the botanical aspects, the geothermal features at Waimangu are spectacular, including steaming cliffs, hot lakes, and sinter terraces. It is a dynamic and varied site, and well worth return visits. To cap the trip off, when we arrived at the bottom of the hill at Lake Rotomahana, the concessionaire offered us a complimentary boat trip out on Lake Rotomahana. Here we cruised beneath the steaming cliffs and past the approximate location above where the Pink and White Terraces used to be. The views of Mt Tarawera above the lake also sparked much discussion of the pine invasion occurring on the open upper slopes of the mountain.

The occasion was further marked by a celebratory barbeque dinner at our home near Tikitere. The evening was very relaxed, with everyone chipping in to help, in the traditional style of early Rotorua Botanical Society annual celebrations. A continuous Powerpoint show, with many photos from early field trips, stimulated wonderful memories. Some of the “older” members present enjoyed the evening so much that it was resolved not to wait for a 50-year celebration, but to have a 40-year celebration instead, because otherwise they might miss out on the next one!

Here’s to the next 25 years of the Society.

Progress on the targets of the Global Strategy for Plant Conservation

Bec Stanley, Auckland Regional Council (Rebecca.Stanley@arc.govt.nz)

A new report on the progress in achieving the targets of the Global Strategy for Plant Conservation (GSPC) has been published by the Convention on Biological Diversity. The review states that the GSPC has provided a useful framework to bring together various initiatives and programmes in plant conservation including stimulating the establishment of plant networks including the Global Partnership for Plant Conservation (www.plants2010.org). This voluntary initiative brings together international, regional and national organisations to contribute to the implementation of the GSPC. The partnership aims to link existing initiatives for plant conservation, identify gaps and the campaign for resources. The review also identifies limited progress in some targets and highlights the emerging trend of climate change that it estimates poses an even more serious threat to the conservation and sustainable use of plant diversity and an increase in the extinction rate of plant species. You can read the report on-line at <http://www.cbd.int/gspc/>

On-line course on field techniques for surveying vegetation

Dr Jocelyne M.R. Hughes, the Academic Director of the Environmental Sciences Portfolio, CPD Centre, Oxford University Continuing Professional Development Centre contacted the President and Secretary recently about a course developed by her university that she thought might interest Network members. Brief details of the course are given below. Further details can be seen via the link that is given.

Course outline

This is a five-week, tutor-led training course taught entirely on-line. It may be taken from anywhere in the world and is international in its use of case studies. It will appeal to a variety of students and practitioners in conservation and management who want to improve their ability to conduct vegetation surveys. The topics covered in the course are:

Rationale for surveying vegetation; choosing a vegetation survey technique; structural methods of vegetation description; floristic methods of vegetation sampling; overview of quadrats and plotless sampling; quantitative measures; vegetation monitoring, permanent quadrats and vegetation mapping; sampling strategy or protocol; recording and storing data.

This is the first in a new series of postgraduate level on-line courses in Ecological Survey Techniques.

Course starts: June 1, takes 30 hours over 5 weeks, costs £250 (approx \$NZ650).

Offered by the Oxford University Continuing Professional Development Centre.

Details and application form on www.conted.ox.ac.uk/env

Newsletter copy

This newsletter is a bit thinner than recent issues. The answer lies in members’ hands. Surely there are many stories, good and bad, arising from all the field camps, in particular, that were held over the summer. Increasing or decreasing populations of rare plants, new discoveries for your region, tell us about them. There is plenty of assistance available to help those who are less experienced in writing articles. Copy for the next issue is required on or, preferably, before 15 June.

UPCOMING EVENTS

If you have important events or news that you would like publicised via this newsletter please e-mail the Network (events@nzpcn.org.nz):

Auckland Botanical Society

Meeting: Wednesday 3 June at 7.30 p.m. a talk by Chrissen Gemmill titled "Pittosporum in the South Pacific". **Venue:** Unitec School of Natural Sciences Gate 3, Building 023, Room 1018.

Contact: Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Field trip: Saturday 20 June to the Upper Huia Dam walkway.

Contact: Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Waikato Botanical Society

Meeting: Tuesday 26 May at 7.00 p.m. a talk by Bruce and Bev Clarkson titled "Vegetation in the western U.S.A." **Venue:** University of Waikato, Room S 1.01, S Block, Gate 8 Hillcrest Rd.

Contact: Liz Overdyck
ph 07 846 0965
e-mail: eg3@waikato.ac.nz

Field trip: Saturday 13 June to Lake Mangahia fieldtrip followed by a Waikato Wetland Plants Field Guide workshop (attend one or other or both but please RSVP your intentions). **Meet:** Depart 9.00 a.m. Landcare Research car park, Gate 10 Silverdale Rd, Hillcrest, returning to the University (via Landcare) for field guide workshop by 1.00 p.m. For the workshop come to Waikato University Gate 9, Hillcrest Rd (we will be in D1.16, swipe card access required at the C-D link stairwell at Gate 9 entrance, please call 07 838 4466 x 7824 or our mobiles if you arrive late! or lurk at the gate and we will keep an eye out).

Contact: For RSVP and carpooling:
Monica Peters e-mail: monica.peters@landcare.org.nz or
ph: 07 8593725 (wk);
mob: 021 049 2036 or
Liz Overdyck,
e-mail: eg3@waikato.ac.nz,
ph: 07 846 0965;
mob: 021 155 3622.

Rotorua Botanical Society

Field trip: Saturday 6 June to Matakana Island. **Meet:** The car park at 8.00 a.m. or at the ferry terminal Tauranga/Omokoroa (time/place to be confirmed). **Grade:** easy, 4WD required; \$40 per vehicle ferry charge.

Leader: Sarah Beadel,
ph: 07 345 5912,
e-mail: Sarah@wildlands.co.nz.

Meeting: Monday 22 June in the evening (time to be confirmed), the Annual General Meeting. Following the AGM and a meal there will be a slide show. Everybody is asked to bring along some slides of their botanical expeditions to share with the group.

Venue: 99 Sala Street DOC office (to be confirmed).

Wellington Botanical Society

Field trip: Saturday 6 June. Owhiro catchment and Tawatawa Reserve. Find some botanical gems on your doorstep. Botanise two or three areas (streamside, wetland and valley slopes) in the lower Owhiro Stream catchment and the new Tawatawa Reserve, two adjacent areas in Wellington's southern suburbs. Likely to include an area in which no botanical survey has ever been undertaken. Meet 9.30 a.m. cnr Happy Valley Rd/ Murchison St, Upper Owhiro Bay. Transport: no.7 bus to Brooklyn shops then 20-30 min walk down Ohiro Rd and Happy Valley Rd, OR no.1 bus to cnr Humber St/The Parade, Island Bay, then 30 min walk via Humber/Derwent/Moselle/Severn/Robertson streets and up Happy Valley Rd. Map R27 Wellington, and street map.

Leader: Paul Blaschke 398-9545 or 027 246 2848.

This trip will also suit people who are free for only half a day. Contact Paul to arrange afternoon meeting place.

Meeting: Monday 15 June. "Vegetation and ecosystems on your doorstep" Speaker: Dr Paul Blaschke, environmental and ecological consultant, Blaschke & Rutherford. Paul will talk about vegetation and ecosystems in some of the areas right near your place in Wellington's southern suburbs, concentrating on Owhiro Stream and catchment, his environmental and restoration work in these areas, and how it links up in a catchment framework.

Venue: Victoria University, Wellington – Lecture Theatre 101, ground floor, Murphy Building, west side of Kelburn Parade. Enter building about 20 m down Kelburn Pde from pedestrian overbridge.

Nelson Botanical Society

Field trip: Sunday 21 June to two Orinoco covenants.

Leader: Philip Lissaman, QEII, ph: 03 5266114.

Meeting: Tuesday 23 June at 7.30 p.m. will be the Cockayne Lecture, a talk by Professor Peter Lockhart, Massey University, on "Recent discoveries and new sequencing technologies being used to understand the nature and future of New Zealand plant species". Note the date.

Venue: Lecture theatre A211, Nelson Marlborough Institute of Technology, 322 Hardy St, Nelson. Gold coin entry.

Canterbury Botanical Society

Annual General Meeting: Canterbury Botanical Society annual meeting will be held on Saturday 6 June at 10.30 a.m. Election of officers and committee and presentation of the Bledisloe Awards will be followed by a talk by Trevor Partridge, Christchurch City Council. Afterwards there will be a social time and a potluck lunch. A plate of finger food from those staying on to socialise.

Venue: St Ninian's Church Hall, 9 Puriri St, Riccarton

Botanical Society of Otago

Meeting: Wednesday 3 June at 12 noon, a talk by Dr Hannah Buckley, Lincoln University, titled "The community structure of epiphytic lichen communities of mountain beech". This is a Department of Botany Seminar. **Note special venue:** Union Street Lecture Theatre (upstairs, corner of Union St (West) and Great King Streets).

Contact: [Trish Fleming](#), ph: (03) 479 7577.

Meeting: Wednesday 10 June at 5.20 p.m. a talk by Emeritus Prof. Alan Mark titled "Ecological excuses for a visit to China"

Venue: 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](#),
ph: (03) 479 7577.

Field trip: Saturday 20 June, a Ross Creek ferns trip. **Meet:** 8.30 a.m. Botany car park.

Contact: [John Steel](#),
ph: (03) 479 4572.
