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 74. JANUARY 2010 Deadline for next issue: Monday 15 February 2010

Message from the President

Welcome to the first edition of the NZPCN newsletter for 2010. Note that the NZPCN conference is being held this year in October. The theme is an important one, because there is much to be done to improve the protection of threatened plants on private land. Your participation by way of contributions or attendance can help to progress our thinking on these issues.

It is great to read about the achievements of DOC and iwi in the Far North in aiding the recovery of the threatened *Metrosideros bartlettii*. This beautiful tree was one of the favourites in our recent "Vote for Your Favourite Plant" competition. As noted in a paper in the latest *New Zealand Journal of Ecology* (Kelly and Sullivan, 2010), a key issue for the future of New Zealand's ecology is "improved understanding and more management tools for invasive and threatened species." The more knowledge we can gain about our threatened species and how we can improve their lot, the better. On this note, the new book *Threatened Plants of New Zealand* by Peter de Lange, Peter Heenan, David Norton, Jeremy Rolfe and John Sawyer would be useful for us all. Good also to read about the work being completed in Hamilton—"restoration and reconciliation of urban and rural New Zealand with native species" is another priority.

Included in the newsletter this month are photos of some the winners of the 2009 NZPCN awards for outstanding contributions to plant conservation. Congratulations again to Graeme Atkins (Individual Award) and the Friends of Mapua Wetland (Community Award).

Reference

Kelly, D.; Sullivan, J.J. 2010: Life histories, dispersal, invasions and global change: progress and prospects in New Zealand ecology. *New Zealand Journal of Ecology* 34: 207-217.

Philippa Crisp
Greater Wellington Council

Network conference 2010

The 2010 conference is to be held in Christchurch with the theme "Plants in a human landscape – conservation outside nature reserves" is scheduled for 8–10 October. Please mark it in your diary now and make a resolution to attend.

A new rank for a threatened limestone endemic

In the December issue of the *New Zealand Journal of Botany*, Norton and Molloy (2009) raise the taxonomic rank of the limestone endemic *Heliohebe raoulii* subsp. *maccaskillii* to species level. The decision is based on its distinctive morphology and ecological habitat, and its sympatry with *H. raoulii* subsp. *raoulii*. The authors note that, unlike *H. raoulii*, which is widely distributed from Mid Canterbury to Marlborough, and is not threatened, *H. maccaskillii* is restricted to North Canterbury and its conservation ranking as Nationally Endangered is considered appropriate.

Reference

Norton, D.A.; Molloy, B.P.J. 2009: *Heliohebe maccaskillii* (Plantaginaceae)—a new rank for a threatened limestone endemic, North Canterbury, New Zealand. *New Zealand Journal of Botany* 47: 405–409.

PLANT OF THE MONTH – *Simplicia laxa*

Simplicia laxa. Photo: Peter de Lange.

Plant of the month for January is *Simplicia laxa*. *Simplicia laxa* is a rare, endemic grass with trailing leaves forming prostrate mats up to around 500 mm diameter. Although found in Wairarapa in 1880, it has not been seen in the North Island since then and is currently known only to be in several small populations in Otago.

It often grows in base-rich soils (with higher pH) associated with limestone or schist, usually on rock ledges, crevices, or within overhangs and small cave entrances. Flowers appear in summer and can be used to distinguish *S. laxa* from the only other species in the genus, *S. buchanii*, because only then can the much larger, pyramidal inflorescence and finely pubescent lemma of *S. laxa* be seen.

Simplicia laxa roots easily from nodes so may be grown without difficulty from the division of clumps or stem cuttings. It can also be grown from seed. The main threat to this rare grass is competition with taller, faster growing grasses. The network factsheet for *S. laxa* can be seen at: www.nzpcn.org.nz/vascular_plants/detail.asp?PlantID=94

Conservation awards presented

The NZPCN plant conservation individual award was presented to Graeme Atkins in Gisborne by the Network secretary, John, Sawyer. Council member, Shannel Courtney, presented the NZPCN plant conservation community award to Friends of Mapua Wetland. This was presented after a planting of kahikatea and totara in a corner of Tasman District Council land (Aranui Park) that has been designated for wetland restoration upon the dogged persistence of the Friends of Mapua Wetland

Graeme Atkins with his award and some flowering kakabeak.

Friends of Mapua representatives with the community award; from left to right: David Mitchell, Carol, Judy Mitchell, and Shannel Courtney.

Rata Moehau—the big rata asleep on the hill (aka Bartlett's) gets going

Janeen Collings, DOC Threatened Plants Ranger, Kaitaia (jcollings@DOC.govt.nz)

The big rata (*Metrosideros bartlettii*) might be asleep on the hill but the local community is wide awake in its efforts to protect this taonga. Thanks to the efforts of many, Rata Moehau, the unique white flowering forest giant is well on the way to recovery. It was under serious threat of extinction with only 31 adult trees in the wild. The trees were clinging to existence in three discrete sites all within a short distance of each other in the Far North.

Iwi Ngati Kuri supported the Department of Conservation (DOC) in the initial efforts to boost the population. A total of 360 trees were planted into Radar Bush and Kohuroa in winter 2007. These sites are intensively managed for possum control on an annual basis. Many of those planted trees are now reaching into the light at over 2 metres tall and are looking very healthy. I would like to say a big thank you to all the volunteers at the Kerikeri Nursery for doing such a wonderful job of growing this first lot of trees. Also a big thank you goes out to all the local people who came out and played in the mud with us for the planting. The wider conservation programme for Rata Moehau will see a range of protected sites throughout the Far North established with trees sourced from all three sites.

Troy Kaaka and Pereniki Conrad. Photo: DOC.

Waiwhakareke Natural Heritage Park

Waiwhakareke Natural Heritage Park is a 60-ha park located on the north west outskirts of Hamilton, bounded by Baverstock, Rotokauri and Brymer Roads. The vision for the park is to create a self-sustaining habitat sanctuary that represents the original ecosystem diversity of the Hamilton Basin. This involves reconstruction from farmland of traditional native lowland and wetland ecosystems once widespread, but now rare, in the Waikato. The Park includes a peat lake (Waiwhakareke) that, before recent control work, was surrounded by introduced willow trees. Restoration plantings on the former pasture focussed initially on the lake margin and have progressively expanded on to the adjacent hill slopes and more distant ridge crests.

The Waikato in general and Hamilton in particular have very little left of the vegetation that existed before human settlement. This park will bring back examples of all the main ecosystem types and make them accessible to the people of Hamilton for recreation, education and relaxation. It will also be a notable tourist attraction.

Recently, tui have been sighted in significant numbers in Hamilton, having been absent for many years. The growth of Waiwhakareke Natural Heritage Park will make the city in the future even more attractive for tui.

The concept of Waiwhakareke Natural Heritage Park began as an idea of a 'living museum' that would represent the ecosystem diversity of the Hamilton Basin. In 2003, the Council notified

its intention to devote 50 ha of land to the development of Waiwhakareke Natural Heritage Park. In 2004, the first plantings took place and the project was officially launched by the Hon. Chris Carter, then Minister of Conservation. Since then, community and corporate volunteers and council workers have each year carried out planting in the park.

In 2005, a draft management plan for the park was produced and a variety of research began into different establishment methods and different initial plant compositions. The park will comprise five main ecosystem types:

Kauri, tanekaha, rewarewa conifer-broadleaved forest

These are canopy species once prominent on the ridge crests around Hamilton. This ecosystem will be replanted on the higher points in the west of the park. See the Kauri-podocarp-broadleaved section of the NZPCN website for more information.

Tawa, rimu broadleaved-podocarp forest

This type of ecosystem was once the most prevalent forest type in the Waikato and will be replanted on the hill slopes of the park. See the podocarp-broadleaved forest section of the NZPCN website.

Kahikatea, pukatea semi-swamp forest

Once a dominant vegetation type of the Hamilton Basin, the semi-swamp ecosystem will be created on the park's lower, flatter areas. See the podocarp-broadleaved forest section of the NZPCN website.

Peat lake margin and swamp wetland

Pre-European settlement wetlands covered 50,000 ha of the Hamilton Basin of which only 1% now remains. An example of the Waikato's most prevalent wetland type, Sporodanthus bog, is being recreated at the park. This bog is being created through the formation of a peat dome at the lake's edge. A peat dome is a type of wetland that rises higher than the general water level. It develops from layers of vegetation that grow year-by-year without decomposing. The two native plants that contribute to the peat dome—*Sporadanthus ferrugineus* (cane rush) and *Empodisma minus* (wire rush)—are threatened because so much of New Zealand's peaty wetland has been drained and destroyed, *S. ferrugineus* and *E. minus* are threatened plants. To create the peat dome for Waiwhakareke, peat was brought by truck from Torehape on the Hauraki Plains and deposited by the eastern border of the lake. This area will need weed control until the *S. ferrugineus* and *E. minus* grow to cover the ground and spread their seed.

Peat lake/aquatic ecosystem

Lake Waiwhakareke will be managed to re-create and maintain the original aquatic ecosystem of a Waikato peat lake, peat stained and with a low nutrient status. As with all restoration projects, it will be many years before a self sustaining habitat will be developed. Professor Bruce Clarkson of the Centre for Biology and Ecology Research at the University of Waikato believes that the project's long time horizon will require an intergenerational approach, acknowledging that the work will need to be continued by those who follow.

Establishment into pasture also presents some unique problems and research opportunities. With such a large project it is desirable to minimise the number of repeat visits for maintenance and for establishment of the second generation of species. Accordingly, a number of different approaches to initial plant mix and establishment are being tested. How practical is it to plant shade tolerant canopy species into bare pasture? Will they survive initial exposure and flourish once the initial colonisers are established? The performance of different approaches will be monitored over time and will yield valuable information for this project and others that will follow.

The park is over the road from Hamilton Zoo, which will play an increasing role as the park develops through the re-introduction of suitable bird species and invertebrates, thus helping to re-build the complexity of a natural eco-system. The Park will eventually meet the various needs of students, residents and visitors and will have four main roles: conservation, education, passive recreation and scientific research. Proposed future developments on site include a visitor centre/café link and conservation education centre with the Hamilton Zoo, construction of a pest proof fence as well as a walkways within the park and a cycleway around the perimeter with both linking to networks in the surrounding residential areas.

Waiwhakareke Natural Heritage Park is a joint partnership between Hamilton City Council, the University of Waikato (particularly the Centre for Biodiversity and Ecology Research), Waikato Institute of Technology (Wintec), Tui2000 and Nga Mana Toopu O Kirikiriroa. Through various groups and forums these partners work together to decide the management and development of the park. Operational funding comes from Hamilton City Council and in kind from the partners and volunteers. Capital development is funded in part by Hamilton City Council and in part by grants from various sources.

Volunteers are relied upon heavily for the continued growth of the park, with community planting days held regularly. The partners urge the public to keep an eye out for advertisements promoting these planting days and any other ways they can help to support what will eventually be a community park of great significance.

In May 2009, the Waikato Biodiversity Forum held a meeting regarding the Waiwhakareke Natural Heritage Park. This pulled together biodiversity and restoration specialists, interest groups and members of the public for an interactive, informative and collaborative sharing of ideas based around the core theme of Waiwhakareke Natural Heritage Park. This event promoted Waiwhakareke on a regional scale and helped to generate support and acknowledgement from the wider Waikato community.

There is also a recently formed group 'Friends of Waiwhakareke' made up of volunteers of all ages who gather at the park on the last Saturday of every month (excluding December) to contribute to maintenance activities such as weeding and planting. To be a part of this group people can check the website of Waiwhakareke Natural Heritage Park or contact Catherine Smith at 2smiths@wave.co.nz.

Note: *Please send us more restoration case studies to add to the website.*

On-line Plant Forum

Please use the on-line forum to post plant conservation queries or to help answer other people's queries. The forum can be found under the 'Conservation' navigation bar on the Network website (www.nzpcn.org.nz) and is intended to provide an area where people can help each other. Some members have already started posting questions. Please note: if you wish to advise the web team of a correction that is needed on the website then please just e-mail us at info@nzpcn.org.nz rather than posting a forum topic.

Marae-based plant training course—Wellington 13–14 March 2010

An Introduction to plant life in New Zealand—a 2-day marae-based plant training course—will be run from Saturday 13 to Sunday 14 March at Tapu Te Ranga marae, Island Bay, Wellington. This module introduces plant life in New Zealand including both native and exotic species. The course covers plant names, where plants grow and why, plant communities, the life cycle and growth form of plants, the identification of plants using flowers, spores, seed and fruit, leaves, stem and bark and the collection of plant specimens for identification. There are 25 places so if you would like to enrol please e-mail the Network at info@nzpcn.org.nz. There is no charge for attending, although a koha donation towards food for the two days and the cost of the course book would be appreciated. For those registering from out of town, you will have to arrange your own accommodation. For more information about the Network's marae-based plant courses see the Network website (under Conservation > Training).

Annual NZPCN subscriptions

Invoices have been sent to all corporate and NGO members and reminder notices to Individual, Unwaged and Student members. If Individual, Unwaged or Student members have not received a reminder, please take this notice as your reminder (and you can download a notice from the website for details about how to make your payment). Payment of the outstanding subscriptions would be greatly appreciated; the Netowrk can improve its services only as finance allows.

Newsletter copy

This issue of *Trilepidea* is quite a bit thinner than those in the latter part of last year; a sign of the holiday season we have been in one may assume. However, from the evidence of the Upcoming events section, there has been lot of botanising going on. How about getting telling us in up to 500 words what you did, what you found and even what you didn't find that you expected to find? If it can be illustrated by a good photo, so much the better.

Threatened Plants of New Zealand by Peter de Lange, Peter Heenan, David Norton, Jeremy Rolfe and John Sawyer (Canterbury University Press)

Watch out in the next issue of *Trilepidea* to order *Threatened Plants of New Zealand* at a special NZPCN members-only discount price of $80 plus postage (full retail price is $99.95). This beautifully illustrated book combines precise botanical description with lavish illustrations in describing the 189 species defined by conservation scientists as Extinct or Threatened, using the New Zealand Threat Classification System. Each description contains information on how to identify the plant in question, the specific threats it faces, and its current distribution. Books will be delivered following its launch in late March.

Three website helpers needed

The Network website continues to grow and with that comes additional work. The Network web team is, therefore, looking for volunteers who would be willing to help edit and tidy up some of the pages on the new website. Volunteers must have a good internet connection and be computer literate. Wellington or Dunedin based would be an advantage. Please contact the Network if you are willing and able to assist: info@nzpcn.org.nz

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

Anniversary Weekend camp: 30 January – 1 February at Turangi Camp.	**Contact:** Maureen Young (e-mail: youngmaureen@xtra.co.nz).
Field trip: Saturday 20 February 2010 to Whangamarino wetland.	**Contact:** Maureen Young (e-mail: youngmaureen@xtra.co.nz).
Meeting: Wednesday 3 March at 7.30 p.m., the AGM plus a talk on Central Otago camp. **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 March to Kawau Island.	**Contact:** Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Waikato Botanical Society

Field trip: Saturday 27 February to Te Māra Reo Language Garden and Lake Hakanoa wetland. **Meet**: 9:30 a.m. at the Landcare Research car park, Gate 10 Silverdale Rd, Hillcrest.	**Contact:** Monica Peters, e-mail: monica.peters@landcare.org.nz, ph: 859 3725 (wk), mobile: 021 049 2036.

Waikato University

Summer course: Friday 5 – Friday 19 February, Biol226C Flora of Aotearoa/New Zealand. Open to all with an interest in botany (at the discretion of the Course Coordinator).	**Enquiries:** Dr Chrissen Gemmill, e-mail: c.gemmill@waikato.ac.nz, ph: 07 838 4053), Prof Bruce Clarkson, e-mail: clarkson@waikato.ac.nz ph: 07 838 4237 or contact the Department of Biological Sciences ph: 07 838 4022 or 0800 WAIKATO, University of Waikato, Private Bag 3105, Hamilton.

Rotorua Botanical Society

Summer camp: Joining with the Auckland Botanical Society trip to Turangi, see above.	
Field trip: Saturday 6 February – Sunday 7 February to Lake Surprise, Tongariro National Park. **Meet**: Saturday morning in Rotorua or at Ohakune (contact trip leader by Wednesday 3 Feb for car pools). **Grade**: medium and hard options. **Accommodation**: DOC Mangaturuturu Hut $15/$5 (adult/youth) hut tickets required. **Bring**: Full tramping gear and food for an overnight stay in an alpine hut.	**Leader:** Chris Bycroft ph: 07 346 3647, e-mail: chris@wildlands.co.nz
Field trip: Friday 26 or Saturday 27 – Sunday 28 February to the Scenic Reserves of the Motu Road – Matawai to Opotiki.	**Leader:** Paul Cashmore, ph: 07 348 4421 (hm) or 07 349 7432 (wk), e-mail: pcashmore@DOC.govt.nz.

Wellington Botanical Society

Meeting: Monday 15 February at 7.30 p.m. a talk by Dr Ken Ryan, Senior Lecturer in Antarctic Biology, Victoria University, titled 'Ecophysiology of Antarctic sea ice algae. **Venue**: Victoria University, Wellington, Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade. Enter building off Kelburn Parade about 20 m below pedestrian overbridge.	
Field trip: Saturday 20 February to the Tapu Te Ranga Marae Harvest Festival. **Meet**: Taputeranga Marae, 44 Rhine St, Island Bay.	**Leader:** Bruce Stewart, ph: 027 2222 652 or, at the marae: 04 970 6235; Deputy leader: Barbara Mitcalfe, ph: 04 475 7149. For further information contact Bruce Stewart.

Nelson Botanical Society

Field camp: Friday 29 January – Monday 1 February, Nelson Anniversary Camp, Reefton.	**Leader:** Cathy Jones, ph: 03 546 9499.
Field trip: Sunday 21 February to Mount Murchison.	**Contact:** Lawrie Metcalf, e-mail: landlmetcalf@xnet.co.nz for further details.

Canterbury Botanical Society

Meeting: Friday 5 February at 7.30 p.m. a talk by Amber Sciligo titled 'Drosera'.	**Venue:** Room A5 University of Canterbury.
Field trip: Saturday 13 February to Mt Hutt; come and see the alpines that will be out in February. **Meet**: at Yaldhurst Hotel at 8.00 a.m. to carpool and depart at 8.15 a.m. or at the bottom of Mt Hutt by the old toll booths at 9.00 a.m. approx. **Bring**: All food and drink for the whole day and warm layers of clothing. **Cost** of travel about $20 from Yaldhurst for passengers.	**Contact:** Margaret Geerkens ph: 352 7922 for more info or on Friday 12th if the weather looks inclement.

University of Canterbury

Summer course: Biology 305 Practical Taxonomy for Field Biologists. A technique-based course with examples from the montane and alpine flora of the Cass region but focus is on general principles, so that most acquired skills are transferable to other regions and other groups of organisms.	**Information:** see the UC website, www.canterbury.ac.nz/courses/ or contact the course coordinator or the School of Biological Sciences office, ph: 03 364 2500, e-mail: biology@canterbury.ac.nz. Course co-ordinator: Dr Julie Barcelona.

Botanical Society of Otago

Field trip: Sunday 14 February, Valentine's Day Field Trip to Heywood Point. **Meet:** at the Botany Department car park at 9.00 a.m.	**Contact:** John Barkla, ph: (03) 476 3686.
Meeting: Wednesday 24 February at 5.20 p.m. a talk by Associate Professor Brent Ewers, Department of Botany, University of Wyoming titled 'Incorporating the Burn and Bite of Vegetation Disturbances into Climate Change Science'. **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:** Bastow Wilson, ph: (03) 479 7572.

The Island Invasives Conference

Conference: Auckland, February 2010. Registrations are now open. See: www.cbb.org.nz/conferences.asp to read the updated information and proceed to the payments page. Please pass this information on to as many people as possible.	**Conference Manager:** Dick Veitch e-mail: dveitch@kiwilink.co.nz.

4th National Wetland Restoration Symposium

Theme: "Wetland Management and Restoration (Freshwater and Estuarine)". Venue: Rotorua on March 3-5, 2010. **Online registration**: www.wetlandtrust.org.nz; early bird registrations opened 1 June 2009.	**Contact:** National Wetlands Symposium 2010, The Organiser, ph: 07 343 1732, e-mail: theorganiser@RotoruaNZ.com.

Tuatapere Hump Track Charitable Trust

Botany Bonanza: starting Saturday 13 February with Dr Peter Johnson; only 24 places for $649 per person including a signed copy of Peter's book.	**See:** www.humpridgetrack.co.nz or contact daman@humpridgetrack.co.nz for more details.
Celebrity Walk: 1–4 March, four departure dates, only 24 places each day. Have your pack flown all the way and eat gourmet meals cooked for you at $695, less than half the normal guide walk price.	**See:** www.humpridgetrack.co.nz or contact daman@humpridgetrack.co.nz for more details.

Environment Institute of Australia and New Zealand

Field trip: Sunday 14 February to Hinewai Reserve, Akaroa. To celebrate the start of the UN's International Year for Biodiversity there is a family visit to Hinewai Reserve on Banks Peninsula. **Travel:** car pooling, departing Halswell at 9.30 a.m.; or meet at Hinewai at 11.00 a.m. **Cost:** gold coin donation to Maurice White Native Forest Trust (owner of Hinewai). EIANZ will provide hot and cold drinks. Please bring your family and friends along to learn about the biodiversity of the Banks Peninsula and the energetic restoration project.	**RSVP:** Chree Didham (chree.didham@mwhglobal.com) by end of Wednesday 10 February, stating numbers attending and whether you would like to take part in the car pooling.