



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: Friday 16 April 2010

Message from the President

NZPCN has been making good progress with uploading images of plants and fungi onto the website. The goal of this work is to ensure native plant diversity is understood and documented (an objective in the NZPCN strategy). Over 18,000 images are now online. A special thanks to all those who have provided and uploaded images; to those of you with plant photos on your computer, please keep sending them in, especially images of exotic species. The on-line shop is proving to be very successful. Don't forget to order your copy of the newly released "*Threatened Plants of New Zealand*", because not only is it a beautiful and informative book, but the proceeds will help to fund future work by the Network.

I love this month's story about the use of threatened plants in a pa harakeke project. It illustrates a very creative approach to problem-solving and, as the authors mention, the project provides a positive way of highlighting the plight of threatened species. It is also great to see the number of botanical society trips being planned around the country. Welcome to the Wanganui Museum Botanical Group that appears in the Upcoming Events section of the newsletter for the first time.

Philippa Crisp

Greater Wellington Council

PLANT OF THE MONTH – *Raoulia rubra*



Raoulia rubra. Photo: John Smith-Dodsworth.

This endemic cutie peeks up at you from the sides of the track as you tramp through some alpine and sub-alpine areas. Its natural range is fairly narrow, inhabiting rocky slopes, stable talus, cliff faces and rock ledges in the Tararua Ranges in the North Island and the Haupiri Range, Mt Arthur, and Paparoa Range in the South Island.

A little member of the daisy family, it can grow to form a densely compacted grey cushion up to 250 mm diameter and 150 mm tall. The photo shows why this plant is sometimes referred to as vegetable sheep.

Over early summer, it produces tiny reddish purple flowers, only about 2.5 mm long in a bunch only about 3 mm diameter. *Raoulia rubra* is not threatened, and is fairly common in its narrow geographic range. It is difficult to propagate, and although you might like to pet the odd one, it shouldn't be removed from the wild.

The network factsheet for *Raoulia rubra* can be seen at:

www.nzpcn.org.nz/flora_details.asp?ID=669

Pa harakeke utilises threatened plants in Waitakere

Danielle Hancock, Waitakere City Council (Danielle.Hancock@waitakere.govt.nz), and Jeff McCauley (jeff@nativeconcepts.co.nz)

A new pa harakeke site has been established on the banks of Henderson Creek thanks to an innovative group in Waitakere, West Auckland. Members of a local weaving circle in Henderson joined forces with the Project Twin Streams group to create a pa harakeke site; combining two objectives of Waitakere City Council, which are to replant riparian area with native plants and to increase the use of threatened species in revegetation projects.

The weaving circle contacted Landcare Research, which manages the Rene Orchiston flax collection, to ask for species. Landcare sent the group many different varieties that the weaving circle carefully chose from based on each variety's specific qualities. They chose a mixture of flaxes that would dry in different colours varying from golden yellow to brown and white as well as a variety of lengths and widths. Some varieties are better for kete, some for whareke and some for muka.

The flax was quickly established but the group soon realised that they had a problem with weeds growing in the garden beds. Frustrated with the constant weeding, they put their heads together to work out a way to minimise weed growth. They could have mulched the beds and left it at that but mulch would need to be replaced every so often so they decided to plant hardy native ground covers to fill the space in which the weeds would have grown. Jeff McCauley from New Zealand Native Concepts, who specialises in rare and threatened species, was asked to help the group pick the right plants. One of the weavers has a special dream to have special areas to grow such species. So the pa harakeke site has evolved into a conservation project. Jeff helped select species that would:

- compete strongly against weeds;
- be hardy (in that they required minimal care);
- grow around flax and not inhibit the growth of flax; and
- would withstand treading because of the need to harvest the flax.

The garden is now fully planted and maintained, much to the enjoyment of the local weaving group. For more information contact Millie Wells, Riparian Coordinator for Opanuku Stream (e-mail: millie.wells@waitakere.govt.nz or ph: 09 836 8000 ext 8262).



The pa harakeke site on the banks of Henderson Creek.
Photo: Danielle Hancock.

The brief proposal

The species proposed for the pa harakeke are all **Waitakere Threatened species**. They have been chosen not just for their status but they are also the most likely species to meet the requirements of the site with regard to survival and size. They should also require less maintenance than most other species. Much emphasis was on using the right natives and using locally sourced species where possible. This would be the perfect emphasis to display at this site.

The species proposed are capable of giving a cosmetic value as well as a conservation value, which has so far never been attempted in such projects yet alone with such species. All the threatened species proposed are at risk of becoming extinct in the near future—some species as soon as 2–3 years. The species need to be in *ex situ* populations as security, for the ability to research and for education. If such species were used it would create publicity for public and professional interest in a very positive way due to the uniqueness and value. If such a project were progressed it would also support and fund the field work that ultimately makes the conservation of such species possible.

The project conditions

- Each species will be Waitakere sourced.
- The species' original and *ex situ* locations will have a GPS reference where possible.
- The biodiversity collected and supplied will be recorded.
- Information will be supplied about each species' environmental and ecological status based on each source population.
- Information will be supplied about each species status in the Waitakere Ranges and its greater distribution.
- Research resulting from the project will be documented and incorporated into the project and *in situ* projects.

A selection of pa harakeke threatened ground cover species used and their threat status

(The local threat status is an informal assessment of these plants in the region.)

Lobelia "Wood Hill" – Nationally Critical



This is an undescribed species whose wild population consists of perhaps fewer than 100 individuals in two known locations. It is from the Auckland West Coast and the two populations are in completely different habitats. There are no ecological indications about how it occupied such different habitats so far away from each other, or what its greater role is apart from being obviously associated with certain species of birds or reptile. It tolerates exposure, open shade, full sun, drought and erosion. It tolerates poor soils but loves fertile conditions. This is an attractive lush ground cover with white flowers and pink fruit. When I (JMcC) found the second population there were 100 or more individuals but now, within 1 year, there are no more than 20. The other population at Wood Hill would be lucky to have 30 individuals. This species is going extinct really fast.

Mentha cunninghamii – Locally Critical; Nationally Not Threatened



This ground cover species grows around the Waitakere cliffs and bluffs in full sun or shade, full exposure or shelter, poor and fertile eroding soils. It tolerates the wet or extreme dryness. It is another species that is suffering due to the absence of birds. It also is suffering because most populations consist of only one individual plant isolated from other populations. This is dangerous since the species dioecious (has male and female flowers on separate plants) and, as a result, I have come across only one population where some seed was produced. So far there seems to be at least four populations totalling up to 6 individuals and no more than 10. Only one other population has more than one individual.

Zoysia minima – Locally Critical; Nationally Not Threatened



This grass species used to be common around our coastal areas. It now tends to be restricted to areas of sand that has piled up on the cliffs where its too dry and harsh for many weeds to grow. However, once it has established the exotic species are then able to establish as well. This grass has hard rhizomatous stems that make it resistant to disturbance. There are possibly fewer than 10 populations left in Waitakere.

***Scandia rosifolia* – Locally Endangered; Nationally Declining**



This species creates a dense carpet or sprawling shrub. It can be found inland but mainly on the coastal cliffs and bluffs. Once it relied on areas with birds for nutrition and disturbance. Now weeds and browsing pests have reduced it to populations often containing no more than 1 – 5 individuals. It tolerates dry or moist soils, exposure, dappled shade, rocky sites and rich or poor soils. It is fast growing with attractive foliage and abundant attractive flowers. It can be used as a herb in salads and teas.

***Selliera radicans* – Locally Vulnerable; Nationally Not Threatened**



This is a tight, ground-hugging species found around coastal cliffs, rock stacks and estuarine areas. It grows fast and dense and produces masses of white flowers with yellow throats. Along with weeds, browsing pests and land development, this species is suffering due to the absence of birds and reptiles that the seed used to stick to so to be distributed. It tolerates wet and dry, exposure, shelter, poor and rich soils, disturbance and full sun.

***Wahlenbergia littorcola* – Locally Vulnerable; Nationally Not Threatened**



The situation for this species is the same as for *Scandia rosifolia* but is found only around the coast. This species can smother itself in 2 cm blue flowers. Blue flowers are not common for New Zealand native species; it is an attractive colour for our native bee species. This species has rhizomatous roots and loves nutrition. It has sticky fine seed that used to stick to birds and reptiles. It now has been reduced to surviving on cliffs where the sand or debris builds up or on track side banks where there is constant erosion. It is often found in areas where there has being a fire because this creates an open area and adds nutrients.

***Lagenifera pumila*— Locally Uncommon; Nationally Not Threatened**



This little daisy species is found inland and on the coast. It is not currently considered threatened but it is rather uncommon because of the typical issues pointed out for other species. This species spreads by sticky seeds and rhizomes. It can be found on cliffs, bluffs and stream sides in deep forest. It produces masses of attractive white flowers and is a low growing fleshy leaved plant.

Dichondra* aff. *brevifolia



This fast growing species that is currently undescribed. It can be found growing inland but is most common around the coast. It is relatively common but is declining due to weeds. It is commonly referred to as Mercury Bay weed but it is not. The usual Mercury Bay weed supplied is an Australian species, which may cause issues by invading the environment and possibly hybridising with our native species. This native species is fast growing and tolerant of wet and dry, sun, shade, and exposed areas.

DNA investigation of domesticated native plants in Queen Elizabeth II covenants

Loralee Hyde, QEII National Trust, (lhyde@openspace.org.nz)

Lara Shepherd from Massey University and her colleagues are using DNA analysis to investigate the domestication by Māori of karaka, *Corynocarpus laevigatus*, rengarenga, *Arthropodium cirratum*, whau, *Entelea arborescens*, and coastal kowhai, *Sophora chathamica*. The occurrence of these species outside Northland is thought to be the result of translocation by humans.

Greg Blunden, QEII Far North Regional Representative, recently hosted Lara along with Leon Perrie from Te Papa and local naturalist Kevin Matthews at selected QEII covenants in Northland to collect samples of these species. They also took the opportunity to visit Chappie Foley's 7 ha floodplain forest covenant near Kaitaia. Highlights here include the extremely tall kowhai, *Sophora microphylla*, heart-leaved kohuhu, *Pittosporum obcordatum* (Nationally Vulnerable) and a good population of the epiphytic orchid *Adelopetalum tuberculatum* (Naturally Uncommon). Especially exciting for Leon, who is a fern specialist, was seeing *Christella dentata* (Nationally Critical), which is extremely rare in New Zealand.



Close-up of the flowers of the epiphytic orchid *Adelopetalum tuberculatum*. Photo: Kevin Matthews.



Christella dentata is principally a fern of the tropical Pacific. Until recently, Foley's Bush was the only known site in New Zealand. Photo: Greg Blunden.

New Zealand Native Orchid Group's first alpine camp

Gordon Sylvester NZOG Mapping Convener (southcol@xtra.co.nz)

In 2007, while looking at the Kelly's Stream area near the base of the Otira River, an idea was born to mount a field group based in Arthur's Pass for a week-long camp. The camp came to fruition in the 2009 Christmas period with 23 people assembling from all parts of New Zealand and one from the United Kingdom. Research showed that there was very little recent information available to guide the group.

Having an essentially clean canvas to work with, we set off heading in different directions. As is normal for New Zealand, there were alpine herb fields to beech forests and river flats to investigate. At the end of each day, notes were compared and collated. The sum total of records reached an impressive 37 different species recorded for the week.

Quite a few of the sightings were normal for the type of terrain encountered. However, there were several interesting intermediates especially in the genera *Prasophyllum* and *Pterostylis*. At least two observations were new records for the area: *Townsonia deflexa* in two different locations near Arthur's Pass township and *Pterostylis irwinii* at one location near the township (refer *Trilepidea* 75). The nearest previously known locations for both of these species were about 160 km away to the north west.

Anyone seeking any further information about the plants recorded can contact the NZNOG mapping convener, Gordon Sylvester (southcol@xtra.co.nz).

Network on-line shop now open

Further to last month's story that the on-line shop would soon be available, it went 'live' on 23 February. In the first half day that it was available, over \$1000 worth of publications were sold. Enter via the button on the left hand side of the home page (www.nzpcn.org.nz) or follow the link below:

- [Network on-line shop](#)

Products for sale include the new Threatened Plant book, the Network's threatened plant poster, plant lists and plant training courses

Website images

18,000th image loaded to the website

The Network now has more than 18,000 images of native and exotic plants and fungi on its website. Photographers such as John Smith-Dodsworth, Jeremy Rolfe, Peter de Lange, Mike Thorsen, John Barkla, Colin Ogle, Wayne Bennett, Kevin Matthews, Bill Campbell, Dean Baigent Mercer and Sandra Wotherspoon (amongst many others) have provided thousands of images for loading to the site to illustrate the New Zealand flora.

If you would like to contribute images, please send them to the Network at: info@nzpcn.org.nz.

Half the naturalised vascular flora now illustrated

The Network has now loaded images for more than 1250 species of plant that have naturalised in New Zealand. If you have images of exotic plant species that you are willing for us to use on the site please e-mail them to us at: info@nzpcn.org.nz. To buy a copy of the Network's naturalised plant list: [Visit the Network shop](#). To learn more about naturalised plants: [Visit the Naturalised plant species pages](#).

CURRENT FORUM TOPICS

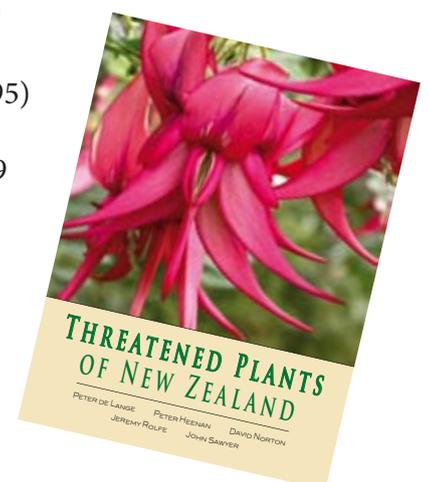
- Have you often observed *Rytidosperma buchananii* in alpine bogs?
- What do members think of the new flag idea? Is John Key's ideal flag (i.e. black with a silver fern) truly representative of all that is New Zealand?

Foliar browse index (FBI) manual being revised

As we reported in *Trilepidea* 75, the recent development of a monitoring toolbox by the Department of Conservation has identified a need to revise the Foliar Browse Index (FBI) manual. For the revision of this manual, DOC would like to hear by 31 March 2010 from anyone who has collected data following the methods outlined in the FBI manual or has used FBI data. This survey is your chance to make your views known and it will help ensure that any changes made to the FBI manual to bring it up to date either are warranted or make the method easier to understand and apply in the field. Please follow this link to the survey: www.doc.govt.nz/fbisurvey.

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

You can now order copies of *Threatened Plants of New Zealand* at the members-only discount price of \$80 (plus postage; full retail price is \$99.95) from Network's on-line shop . 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 paid for with the order will be posted within a few days of receipt of the order. The book will be officially launched on 25 March. Royalties from sales of the book go to the Network.



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 Network can improve its services only as finance allows.

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.

Council meeting

The Network council will meet in Wellington on Thursday 25 March. If you have an item that you would like the Council to discuss as it plans the development of the Network, please contact the Secretary, John Sawyer (jsawyer@doc.govt.nz) or President, Philippa Crisp (Philippa.crisp@gw.govt.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

Meeting: Wednesday 7 April at 7.30 p.m. a talk by Neill Simpson titled 'Botanical memories and adventures with Tony Druce'.

Venue: Unitec School of Natural Sciences Gate 3, Building 023, Room 1018.

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

Meeting: Saturday 17 April a fern workshop with John Braggins at Massey University, Albany.

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

Waikato Botanical Society

Meeting: Wednesday 14 April at 6.30 pm, the AGM, followed at 7.00 pm by a talk by Cynthia Roberts titled 'The effects of burrowing seabirds on the forests, Rangatira Island, Chatham Islands'. Main doors will be open only at 6.30 and 7.00 pm. **Venue:** Landcare Research building, Gate10, Silverdale Rd.

Contact: Monica Peters, ph: 07 859 3725 (wk), 021 049 2036 (mob) e-mail: monica.peters@landcare.org.nz.

Field trip: Saturday 17 April to Pukemokemoke Bush Reserve (combined with Waikato branch Ornithological Society NZ).

Meet: At the track start by the bridge through the reserve entrance gate, Whitikahu Road.

Contacts: Liz Overdyck, ph: 846 0965, e-mail: eg3@waikato.ac.nz or Dai Morgan, e-mail: magpie.morgan@gmail.com.

Rotorua Botanical Society

Field trip: Sunday 11 April to Marawaiwai Scenic Reserve, Opotiki. Meet : The car park at 8:00 a.m. or Opotiki DOC office at 9:45 a.m. **Grade:** Medium.

Leader : Paul Cashmore, ph: 07 348 4421 (h), 07 349 7432 (wk), e-mail: pcashmore@doc.govt.nz.

Field trip: Saturday 17 April to Okareka Mistletoe Restoration Project Weed Control for a Work Day. Meet : Corner Summit and Loop Rds at 8:45 a.m. **Grade:** Medium–Hard – activities suitable for all ages and abilities will be provided.

Leader : Paul Cashmore, ph: 07 348 4421 (h), 07 349 7432 (wk), e-mail: pcashmore@doc.govt.nz.

Field trip: Saturday 1 May to Athenree Bowenton Dunes. Meet : The car park at 8.00 a.m. or Bethlehem at 9.00 a.m. **Grade:** Easy.

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

Wanganui Museum Botanical Group

Meeting: Tuesday 6 April at 7.30 p.m. a talk by Tony Barnes, Matthews Roses, titled 'The cultivation and history of Clivia in New Zealand'. Venue: Davis Lecture Theatre, Wanganui Museum.

Contact:
Robyn Ogle, ph: 347 8547,
e-mail: robcol.ogle@extra.co.nz.

Field trip: Saturday 10 April to Tangimoana. Meet: Wanganui Police Station at 9.00 a.m.

Leaders: Viv McGlynn, DOC, Palmerston North and Graeme La Cock. (NB: this the April trip which otherwise falls on Easter Weekend)

Contact:
Robyn Ogle, ph: 347 8547,
e-mail: robcol.ogle@extra.co.nz.

Field trip: Saturday 1 or Sunday 2 May to Higgies' Bush 'Woodburn'. Meet: at the car park at 'Paloma' at Higgies, Fordell 9.30 a.m.

Contact:
Robyn Ogle, ph: 347 8547,
e-mail: robcol.ogle@extra.co.nz.

Wellington Botanical Society

Field trip: Easter Friday 2 April to Sunday 4 April to Sunday 12 April to northern Wairarapa. Meet: 9.15 a.m. Friday, Dorset Square Native Reserve, Moore St corner SH2, Featherston. **Leaders:** tba.

Contacts: Sunita Singh, ph: 04 387 9955, 027 4052 987. or Chris Horne, ph: 04 475 7025, 027 474 9300.

Field trip: Saturday 17 April a working bee at the Dench garden. **Meet:** from 9.30 a.m. at 37 Lyndfield Lane, Newlands. Bring your favourite weeding tools, kneeler, gloves and food; hot drinks provided.

Co-Leaders: Arnold Dench, ph: 04 477 4490, and Eleanor Burton.

Nelson Botanical Society

Field trip: Sunday 21 March to the Maitai Caves track.

Leader: Lawrie Metcalf, ph: 03 540 2295, e-mail: landlmetcalf@xnet.co.nz for further details.

Field trip: Thursday 1 to Monday 5 April, Easter Camp at Kaikoura.

Leader:
Cathy Jones, ph: 03 546 9499.

Field trip: Sunday 18 April, to the Sherry River covenants.

Leader:

Bee Grant, ph: 03 539 6364.

Meeting: Monday 19 April at 7.30 p.m., the AGM and Pot Luck dinner followed by Andy Dennis speaking on Iceland.

Contact:

Cathy Jones, ph: 03 546 9499.

Venue: Jaycees Room, Founders Park, Nelson.

Canterbury Botanical Society

Meeting: Friday 9 April at 7.30 p.m., a talk by Geoff Walls on the Subantarctic Islands. **Venue:** Room A5 University of Canterbury.

Field trip: 10 April to Mt Alexander – Scargill, Nth Canterbury (4wd vehicles).

Contact:

Gillian Giller ph: 03 313 5315.

Botanical Society of Otago

Field trip: Saturday 27 March to The Fernery (home of Associate Professor Brian Cox). **Meet:** Botany Department car park at 8.50 a.m.

Contact: [Abe Gray](#),
ph: 03 479 7577.

Meeting: Wednesday 21 April at 5.20 p.m., the AGM and Photographic Competition. 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: [David Lyttle](#),
ph: 03 454 5470.

Field trip: Saturday 24 to Sunday 25 April to Silverpeaks. Accommodation: the new Jubilee Hut.

Contacts:

[John Barkla](#), ph: 03 476 3686 or
Allison Knight, ph: 487 8265.

Environment Institute of Australia and New Zealand

Annual Conference: Tuesday 26 October to Friday 29 October at Te Papa, Wellington. The title of the conference is "From Discovery to Delivery: Science, Policy, Leadership and Action". These are the four elements that, together, are essential for sound environmental management.

Information:

www.confer.co.nz/eianz2010.
