# 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 61. DECEMBER 2008** Deadline for next issue: Friday 16 January 2009


## Message from the President

"Never heard of it!" "The what?" "What does this network thing do again?" These are some of the comments that I well remember having received when out and about trying to promote the New Zealand Plant Conservation Network. I also recall that some people, acting in our interests, have often stumbled over the name when trying to recall the exact words. I have prompted John Sawyer to write a brief discussion topic for this month's newsletter about the name and about possible alternatives. Do please read John's comments and do please respond. I would like to see some discussion about this topic because it is important! We need to have a very high profile. We need to be readily recognised and known throughout the country. It is important that as many people as possible can relate to us and relate to our mission. Do please send us comments.

Many thanks to all those who have contributed to this newsletter, the last one for 2009. I am most grateful to see contributions from several people. The narrative from Mike Wilcox about his recollections of *Trilepedia adamsii* will be of particular interest to readers as will the useful tips provided by Anthony Holcroft about planting on wetlands in the Oxford foothills. Peter de Lange is a regular contributor to the newsletter, and this time he relates a very interesting account about 'pillworts'. Equally interesting is the account from the published paper by Peter Heenan and colleagues of a new tree species endemic to the Chathams. So, once again, please keep those narratives, stories, reports and anecdotes coming in.

I was in Wellington last Saturday and could not help but notice the abundance of those magnificent pohutukawa trees, many of which are in flower or are about to flower. What a wonderful sight and indeed one to be celebrated this time of year. The pohutukawa was voted the most popular native plant in 2002. This year we will not be having the annual vote for the most popular native plant. The vote will be back next year! Meanwhile, here in Christchurch, the fact that, in 1898, the ladies of the Beautifying Association planted a northern rata on an island in the River Avon has not gone unnoticed because, in the newspaper, there was a report about its crimson blooms—a living New Zealand Christmas tree.

Finally, on a sad note, I am sure that I am not alone in expressing my deep regret about the untimely and sudden passing of that well known and much respected botanist and ecologist, Dr Peter Wardle. He will be sadly missed.

*Ian Spellerberg*
*Lincoln University*

## Subscriptions

Subscriptions for the 2008–09 year are due. All corporate and NGO members whose subscriptions are due have been sent invoices. Most individual members, including those in the categories of student or unwaged, have been e-mailed a reminder; those who receive hard copy of the newsletter will have a reminder with this issue. Many have paid very promptly and we thank you for that; we ask that the rest will treat their subscription payment as a matter of urgency. The Network can maintain and expand its services only as fast as finances permit.

## PLANT OF THE MONTH – *Embergeria grandifolia*

*Embergeria grandifolia*. Photo: Peter de Lange.

Plant of the Month for December is the Chatham Island sow thistle, *Embergeria grandifolia*, which is endemic to the Chatham Islands where it can be found growing along the coast on sand dunes and cliff ledges, sometimes just a few metres from the ocean.

This member of the daisy family (Asteraceae) can grow like 'puha on steroids', and is purported to be able to reach 1.5 m tall. Its thick thistle-like leaves, which lack stinging hairs, can reach up to 1 m long. Like its mega-herb neighbour, *Myosotidium hortensia* (Chatham Island forget-me-not), which is also endemic to the beaches of the Chathams, *Embergeria grandifolia* is a monotypic genus—it is the single species belonging to its genus.

*Embergeria grandifolia* flowers in summer, producing clusters of light purple to pale yellow flowers followed soon after by wind dispersed fruit. It is palatable to browsing by domestic stock, wild pigs, possums and rodents. Browsing, weed competition and land conversion have contributed to its decline and it is now categorised as in Serious Decline. However, there are chances of a recovery and *E. grandifolia* is actively colonising new coastal sites across the Chatham Islands.

The Network fact sheet for *E. grandifolia* can be found at www.nzpcn.org.nz/vascular_plants/detail.asp?PlantID=65

## My recollections of *Trilepidea adamsii*

*Mike Wilcox (mike.wilcox@xtra.co.nz)*

I lived in Hamilton from 1952–57 during which I attended the Hamilton West Primary School and Hamilton Boys' High School. It was a time when my interest in plants was developing strongly. I joined the Waikato Forest and Bird Society group, which was very active and especially interested in the local botany. Leading lights were Michael C. Gudex, Athol Caldwell and Audrey Eagle, and it was wonderful for me as a keen schoolboy to go with them on the various field trips to places such as Mt Pirongia, the Hakirimata Ranges, Bridal Veil Falls, and remnant bush areas near Cambridge and Matamata. I still have (and greatly treasure) the signed reprint of M.C. Gudex's paper on the flora of Mt Pirongia, which he gave me. Athol Caldwell was an engineer with the NZ Electricity Department, and established an arboretum at its site on Peachgrove Road. The arboretum had every New Zealand native conifer species in the collection. He was very knowledgeable, and schoolmaster-botanist Varner Cook named *Bolboschoenus caldwellii* after him.

One notable field trip was to Sanitorium Hill, near Cambridge, where I travelled with Mr Gudex, Mr Caldwell and Audrey Eagle. It was in 1954, I think. I recall two things. One was stopping on the side of the road where the orchid *Orthoceras novae-zelandiae* was abundant. The other was at Sanitorium Hill, where, at the bush edge, Mr Gudex pointed out *Trilepidea adamsii* growing on a small tree (probably *Coprosma arborea*, but I am not sure) about 3 m above ground. This location of *Trilepidea* was well known to my mentors and I remember them saying it was a rarity, but I was not then aware that this was probably the only (and last plant) on Earth of this species.

## Dr Peter Wardle dies while tramping

It is with deep regret that the Network notes that Dr Peter Wardle, author of the classic book *Vegetation of New Zealand* and one of New Zealand's most respected botanists and ecological scientists, died on Saturday 6 December while tramping in Arthur's Pass National Park.

After service with the New Zealand Forest Service and DSIR, Peter retired from Landcare Research in 1996. However, he continued his research having published two papers this year. He was regarded by many as the oracle on ecological matters relating to native plants. In 1977, he was made a Fellow of the Royal Society of New Zealand. In 1990, he was awarded the Royal Society of New Zealand's top honour, the Hector Medal and in 1999 he was made an Honorary Life Member of the Ecological Society of New Zealand.

The sympathies of all Network members will surely go to Margaret, his wife, and the rest of Peter's family.

## Network President wins national award

Lincoln University's Professor of Nature Conservation, Ian Spellerberg, has been awarded the country's top Science Communicator Award for 2008.

The award, made by the New Zealand Association of Scientists, is presented to practising scientists for excellence in communicating to the general public in any area of science or technology. The association is an independent body of scientists working to promote science in New Zealand, increase public awareness of science and encourage excellence in science.

Professor Spellerberg's citation refers to his science communication efforts spanning "decades of research" undertaken in New Zealand and Britain. "His numerous academic publications and books, newspaper columns and articles, public lectures, and community and education initiatives cement his place as one of the country's most respected scientists and science communicators," says the citation.


Professor Spellerberg has been a staff member at Lincoln University since 1994 and is a member of the Environmental Management Group within the Environment, Society and Design Division. He is also Director of the Isaac Centre for Nature Conservation. Among his many books, *An Introduction to Applied Biogeography*, published by Cambridge University Press in 1999 and co-authored with John Sawyer, is a standard text in New Zealand and UK universities and has been translated into Korean for recommended reading at some Korean universities. His 1991 book *Monitoring Ecological Change* was translated into Czech. Recent books include *Going Native: making use of New Zealand plants,* co-authored with the late Dr David Given and *Living With Natives,* co-edited with Michele Frey.

Professor Spellerberg founded the annual presentation of a Lincoln University State of the Nation's Environment Address, an event now in its 10th year. The Director of Lincoln University's Environment Society and Design Division, Dr Stefanie Rixecker, said the communicator award "rightly recognises" Professor Spellerberg's lifetime record of outstanding and sustained service to the science of nature conservation and environmental science. "His efforts have enriched students, staff and the public for many years," she said.

## Riparian restoration success

North Canterbury land-owner and children's writer Anthony Holcroft knows a thing or two about streamside planting. For the last 40 years, he has been restoring a section of the Cam River that runs along his six hectare property boundary. He's also been restoring a wetland and stream on land in the Oxford foothills. Anthony wanted the bush to look like it had always been there, remembering a stand of riverside kahikatea from his childhood which formed a canopy above a dense understorey of coprosma.

Anthony Holcroft.

"Start off with a small patch so you can handle the maintenance," he says. "It is best to use plants grown from locally sourced seed. These are best suited to the local environment and most likely to survive." Anthony sources plants from a local nursery and also grows his own from seed collected on or near the property. After fencing stock out, Anthony planted hardy natives such as flax, cabbage trees and toitoi. Sedges (such as *Carex secta*) were planted close to the stream edge.

"I used to plant sedges at one metre intervals, but found the closer density of half a metre made for quicker establishment of ground cover and less weeding later."

Some exotics, like pampas and willow, were left initially to give shelter to other plants. Later, when his native plantings were established, he went back and planted species that require more shelter, like kahikatea and kowhai. "Avoid planting flax on flood-prone banks," he advises. "Flax can get pulled out along with parts of the bank during flooding and is better planted on the upper banks. Instead, plant sedges, such as *Carex secta*, which bounce back after flooding. I find it best to plant riverside sedges later in the season in Oxford—October or November—to avoid spring flash floods."

Want to read more about Anthony's writing life? **www.bookcouncil.org.nz/writers/holcroftanthony.html**

*Reproduced with permission from the Environment Canterbury, December 2008 newsletter* Living Here.

## Pillwort name change – no bitter pill to swallow!

*Peter J. de Lange, Department of Conservation (*pdelange@doc.govt.nz*)*

*Pilularia* is a small genus of 5–6 species scattered through Europe, North and South America, Africa, Australia, and New Zealand. Known as "pillworts" because of their globose sporocarps (capsules bearing 2–4 soral compartments which are held on short "pedicels" near the base of the plant); pillworts are aquatic ferns that inhabit the muddy margins of lakes, ponds and rivers. Pillworts scarcely resemble the "typical" fern of popular imagination because their leaves are filiform. It is only when the young emerging leaves are examined that the circinate vernation typical of ferns becomes apparent.

Traditionally, New Zealand has one endemic species, *P. novae-zelandiae*, which was described by Thomas Kirk in 1877 from specimens gathered from Lake Whangape in the Huntly Basin. Its claim to species status has always been dubious and, in 1989, New Zealand botanists Mark Large and John Braggins suggested that *P. novae-zelandiae* was probably conspecific with the Australian *P. novae-hollandiae*, even going so far as to suggest that these two species could be merged with the North American *P. americana*.

In a recent issue of the *Botanical Journal of the Linnean Society*, American botanists (Nagalingum et al. (2008)), based on molecular evidence obtained from three coding plastid genes and three non-coding plastid regions, have formally merged *P. novae-zelandiae* with the Australian *P. novae-hollandiae*. However, though admitting that there is very little "morphologically speaking" to retain their re-circumscribed *P. novae-hollandiae* as a species distinct from *P. americana*, they argued that since both species are sister to each other, geographically highly disjunct, and because there is some sequence divergence between them (and indeed partitioning between eastern and western U.S.A. populations of *P. americana*), they preferred to maintain these two pillworts as separate species for the time being. Further, they remain unclear over the status of the South American species *P. mandani* (not included in their study), and also of the African plants that are currently referred to *P. americana* but which morphologically better resemble *P. novae-hollandiae*.

**Reference**

Nagalingum, N.S.; Nowak, M.D.; Pryer, K.M. 2008: Assessing phylogenetic relationships in extant heterosporous ferns (Salviniales), with a focus on *Pilularia* and *Salvinia*. *Botanical Journal of the Linnean Society* 157: 673–685.

## New tree recognised from the Chatham Islands

A new tree reaching a height of 8 m and endemic to the two main islands of the Chathams, Rekohu (Chatham) and Rangiauria (Pitt), has just been described in the December 2008 issue of the *New Zealand Journal of Botany* (Heenan et al., 2008). The new tree, long known to the locals as "shell akeake" or "swamp akeake", was recognised in September 2007 by Drs Peter Heenan and Peter de Lange while visiting a swamp forest remnant near North Head, Rangiauria. They have described this species as *Olearia telmatica* (epithet meaning "of a swamp"). In their paper they show that shell akeake is a close relative of another Chatham Islands endemic, the iconic akeake (*Olearia traversiorum*)—probably the world's largest tree daisy.

Peter Heenan recognised the distinctiveness of shell akeake when he noted that it was flowering in September, when akeake usually flowers in late November–December. During 2007, several visits to the islands showed that both shell akeake and akeake are widely sympatric, the new tree species favouring swamps and akeake better draining soils—especially sand soils. Consultation with islanders soon revealed that they had recognised the distinction years ago. Akeake wood burned better and was excellent for use as fence posts and in buildings because it was so durable; shell akeake had less useful wood that took up to 25 years to dry out. Also its trunk was always hollow.

Critical study soon revealed numerous morphological differences and these were backed up by the use of AFLP DNA fingerprinting that showed the species are distinct from each other and apparently not hybridising. Both shell akeake and akeake are regarded as threatened (rated "Nationally Vulnerable") due, the authors believe, to widespread recruitment failure and loss of habitat. It is observed that akeake forest (a distinct vegetation type) is close to being functionally extinct on the main islands of the Chatham group.

*Olearia telmatica*. Photo: Peter Heenan.
Inset: close-up of flowers. Photo: Peter de Lange.

In the paper, the authors also correct the species epithet of akeake from "*traversii*" (singular) to "*traversiorum*" (plural); this change happened through the prompting of Dr Colin Miskelly who had asked why, if akeake had been named after both father and son, it was widely known by the singular epithet "*traversii*". Miskelly was correct; the author of *Olearia traversiorum* had clearly stated that he had named the tree after both the father (William Travers) and the son (Henry Travers)—something botanists had simply overlooked for the last 141 years!

With the formal recognition of shell akeake, the total number of vascular plants believed endemic to the Chatham Islands has risen to 36. However, recent field work suggests this figure may rise to 50, for example, 2008 discoveries include a new bastard grass (*Uncinia*) and possibly a new willowherb (*Epilobium*).

**Reference**

Heenan, P.B.; de Lange, P.J.; Houliston, G.J.; Barnaud, A.; Murray, B.G. 2008: *Olearia telmatica* (Asteraceae: Astereae), a new tree species endemic to the Chatham Islands. *New Zealand Journal of Botany* 46: 567–583.

## New *Hebe* recognised from western Northland

When *Hebe perbella* was formally named in 1998 it was noted that the species was typically associated with basalt rock and associated soils within cloud forest and/or steep sided canyons and waterfalls from Ahipara south to the Waima Forest (de Lange 1998). However, an extreme southerly outlier of this species, a population found at Maungaraho Rock, near Tokatoka, although included in *H. perbella* was considered anomalous because these plants grew on andesitic rock in exposed situations prone to summer drought. Maungaraho plants also differed from *H. perbella* in their less highly coloured flowers, with broader subacute rather than acute corolla lobes, slightly longer corolla tube, typically shorter and broader leaves, and smaller overall growth habit. At the time *H. perbella* was described, these plants were included within that species because they were more similar to it than to any other hebe then known (de Lange 1998; de Lange & Rolfe 2008).

*Hebe saxicola* plant and inflorescence. Photos: Jeremy Rolfe.

Subsequently, the Maungaraho plants were included in an investigation of the *Hebe* flavonoids, the results of which (see Mitchell et al. 2007) had greatly influenced the taxonomic decisions reached in the recent *Hebe* monograph by Bayly & Kellow (2006). In their paper, Mitchell et al. (2007) showed that Maungaraho plants had nothing in common with *H. perbella*. Nevertheless, Bayly & Kellow (2006), who had access to this flavonoid data, included the Maungaraho plants with *H. perbella* and further suggested that *H. perbella* was probably conspecific with the Te Paki endemic *H. adamsii*.

In the latest issue of the *New Zealand Journal of Botany*, de Lange & Rolfe (2008) treat the Maungaraho Rock hebe as a new species, *H. saxicola* de Lange. Their paper explores the morphological relationships between *H. adamsii* and *H. perbella* and concludes that both are distinct species differing in many respects from each other, not least of which is the chromosomal difference between them (*H. adamsii* is tetraploid (2n = 80) and *H. perbella* diploid (2n = 40)) and the presence of

a leaf bud sinus in *H. adamsii* and its absence in *H. perbella*. Further, the published flavonoid analysis of Mitchell et al. (2007) showed no obvious relationship between *H. adamsii* and *H. perbella*. The authors chose to recognise and formally describe *H. saxicola* as distinct from *H. perbella* because of its distinctive flavonoid profile, floral, fruit and vegetative differences and its ecology. A new description of *H. perbella* is also provided by de Lange & Rolfe (2008) to remove those characters present in the original description of that species (see de Lange 1998) and now restricted to *H. saxicola*.

The new hebe though reasonably common in its sole known habitat has declined from several more accessible sites on the rock since it was first discovered there in 1990. The species is threatened by a range of weeds, the most serious of which is pampas grass (*Cortaderia selloana*). Several key sites on the rock are also vulnerable to rock climbers who have marked climbing routes up the rock through these habitats.

**References**

Bayly, M.; Kellow, A. 2006: *An illustrated guide to New Zealand hebes*. Wellington, Te Papa Press. 388 p.

de Lange, P.J. 1998: *Hebe perbella* (Scrophulariaceae)—a new and threatened species from western Northland, North Island, New Zealand. *New Zealand Journal of Botany* 36: 399–406.

de Lange, P.J.; Rolfe, J.R. 2008: *Hebe saxicola* (Plantaginaceae) – a new threatened species from western Northland, North Island, New Zealand. *New Zealand Journal of Botany* 46: 531–545.

Mitchell, K.A.; Kellow, A.V.; Bayly, M.J.; Markham, K.R.; Brownsey, P.J.; Garnock-Jones, P.J. 2007: Composition and distribution of leaf flavonoids in *Hebe* and *Leonohebe* (Plantaginaceae) in New Zealand—2. "Apertae", "Occulsae", and "Grandiflorae". *New Zealand Journal of Botany* 45: 329–392.

## What's in a name?

*John Sawyer, Secretary, New Zealand Plant Conservation Network (jsawyer@doc.govt.nz)*

I write this article seeking views from Network members about whether you are happy with the Network's name. What do you think about re-naming the Network?

When we established the Network in April 2003, there was some limited discussion about what it could be called. We were building on the success of the Australian Network for Plant Conservation and were aware that other Networks had been established elsewhere in the world such as Indonesia and South America. Also, we had a newly published Global Strategy for Plant Conservation that required countries to establish regional networks to implement conservation work worldwide. We also wanted to encourage people to work together as a network—reflecting the interdisciplinary nature of plant conservation. For those reasons, we settled on the name *New Zealand Plant Conservation Network*. At the time, some suggested we should provide a Maori translation for our title, so we came up with ***Roopu hononga Koiora Taiao ki Aotearoa*** but this has never been used widely in our publications nor on our website.

Now, nearly 6 years on, I think we should reflect on where we have come from and where we want to go. We are about to embark on a new 5 year programme based on the recommendations of our conference workshops (which will be published soon). How do we want to present ourselves to potential members, landowners, businesses, other agencies and NGOs that might work with us on achieving our mission?

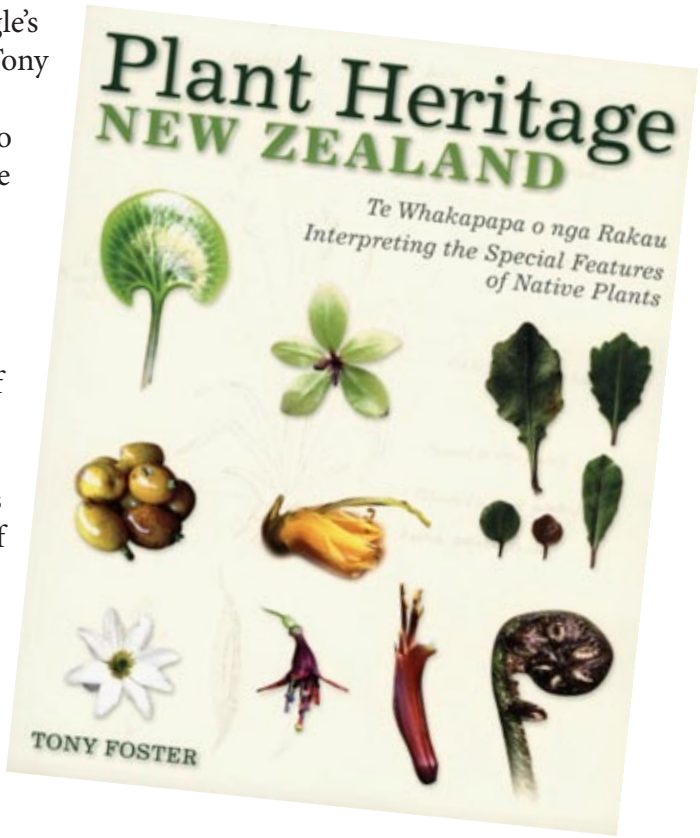
NZPCN has seen us through the last 6 years and we have built a lot of support nationwide for this brand. But, is it as good as it could be? Can we improve through the use of a new or snappier title? Could we attract more sponsors or more members through the use of a different name? Ideas that come to mind are *Plantlife New Zealand*, *Plant Conservation New Zealand* or *Planta Oceania* but I am sure there are lots of other ideas. Alternatively, we can keep things the way they are if we are happy with the current name. Maybe we should live by the motto "*If it ain't broke, don't fix it*".

I encourage you to e-mail me if you have any thoughts on this matter or ideas for a new name and I will collate responses for a future newsletter article. I look forward to hearing your views.

**Book review of *Plant Heritage New Zealand – Te Whakapapa o nga Rakau Interpreting the special features of native plants* by Tony Foster. A Raupo Book published by the Penguin Group. RRP $50.00.**

*John Sawyer, Secretary, New Zealand Plant Conservation Network (jsawyer@doc.govt.nz)*

It is hard to find a native plant book niche that has not already been filled with field guides, floras, Eagle's stunning illustrated books and gardening guides. Tony Foster has tried to create a new niche by blending what feels like a student's first introductory guide to the New Zealand flora with a coffee table-like guide to some of the New Zealand flora's most notable elements. It reminded me of the Network's own introductory manual that is used on our marae-based plant training courses.




The book looks beautiful and the design and use of photos is superb. In fact all of Tony's images would be good additions to the Network website if we could persuade him to let us use them. The book is packed full of information from a brief overview of the vegetation of New Zealand to a description of the forest world of the Maori.

The book is split into two sections. The first provides an introduction to the nature of New Zealand's plant life and its special features. There is a basic introduction to terms such as speciation, taxonomy, divarication, hybridism and heterophylly. It also introduces the Maori view of the origin of the plants of Aotearoa by publishing Te Tawhaa Tioke's account of the first genealogy. The second part of the book delves more deeply into some of New Zealand's native plants, what they look like, their distribution and often some interesting facts about Maori use or other cultural associations.

The photos are excellent; the breadth of subject matter covered is extensive and it is good to see the Network's own plant list being referenced in the introduction (even if the authors' names are misspelt). The book would, however, have benefitted from a more thorough editing. There are quite a number of errors in the text such as the definition of divarication, totara being described as a divaricating plant, *Sophora* as a fully deciduous plant rather than brevideciduous and, I believe, the author, when describing *Clianthus puniceus,* has merged its description with that of *Clianthus maximus* because he has the distribution including sites at Lake Waikaremoana. These examples make you lose confidence in what you are reading and may mean you have to check the Network plant fact sheets just to make sure the details are correct. The book is also a bit repetitive at times. Conversely. a problem with trying to include such a lot of subject matter in a 200 page book is that just when you get going on a subject you are left hanging. There are six lines devoted to hybridism and four to larger plant forms. The species in the second section are aggregated by broad categories such as conifers, ferns and angiosperms but appear to be listed at random within each section making it hard to navigate.

Putting all the above comments aside, this is a lovely book that demonstrates the beauty and origins of New Zealand's extraordinary plant life. It is a brave attempt to bring together an introductory learning experience about why New Zealand's indigenous plants are so special with a lot of information about them.

# 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

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| **Field trip:** from 3–10 January to Chatham Island. | **Contact:** Maureen Young<br>e-mail: youngmaureen@xtra.co.nz |
| **Field trip:** from 16–20 January the Ruahine Camp, Sixtus Lodge. | **Contact:** Maureen Young<br>e-mail: youngmaureen@xtra.co.nz) |

## Department of Biological Sciences, Waikato University

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| **Summer course:** 6–20 February, 2009, a course titled Flora of Aotearoa/New Zealand Biol226C. **Enquires:** to Dr Gemmill, Prof Bruce Clarkson, e-mail: clarkson@waikato.ac.nz; ph: 07 838 4237 or contact the Department of Biological Sciences, ph: 07 838 4022, University of Waikato, Private Bag 3105, Hamilton. | **Contact:** course co-ordinator Dr Chrissen Gemmill<br>e-mail: c.gemmill@waikato.ac.nz<br>ph: 07 838 4053; to enrol. |

## Rotorua Botanical Society

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| **Field trip:** Saturday 14 February 25th Anniversary trip to Waimangu Scenic Reserve. **Meet:** the car park at 9.00 a.m. or Waimangu Thermal Valley entrance, signposted on Waimangu Rd off SH 5 south of Rotorua at 9:30 a.m. **Grade:** Easy. | **Leaders:** Chris Ecroyd, ph: 07 347 9067 (hm), 343 5609 (work), e-mail: Chris.Ecroyd@scionresearch.com or Chris Bycroft ph: 07 346 3647, e-mail: chris@wildlands.co.nz. |
| **Anniversary Dinner:** Saturday 14 February the Rotorua Botanical Society 25th Anniversary Celebration Function. All existing or previous members or friends of the Rotorua Botanical Society are invited to a barbeque to celebrate 25 years of fascinating botanising in the Bay. Continuous slide show (PowerPoint) of Society activities during the evening (please send any photos (electronic) to Sarah Crump (scrump@doc.govt.nz). Some celebratory speeches will be made as well. BBQ is catered, *do not* bring your own. Bring swimming togs. There is lots of space to erect tents and also a lovely big shed if you would prefer (bring your own sleeping mattresses and sleeping bags, although we do have a few on hand). | **Venue:** 67a Te Puea Road (turn left off the Rotorua-Whakatane Highway just before Hells Gate geothermal area. **Time:** 6.00 p.m. or earlier if staying. Please RSVP to Sarah (sarah@wildlands.co.nz) so we can arrange catering, but latecomers will not be turned away! See you all there. **Contact:** Sarah Beadel, ph: 07 345-5912, or 021 924-476, e-mail: sarah@wildlands.co.nz. |

## Wellington Botanical Society

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| **Summer camp:** Friday 16 January – Monday 26 January 2009 at Westport and Karamea. A range of botanical trips has been planned for both Buller and Karamea. | **Editor's note:** Registrations for this camp closed in October but I thought that Network members might like to see what societies are doing over the summer. |

## Nelson Botanical Society

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| **Weekend camp:** 19–21 December to Canaan Downs. **Venue:** The old Canaan Downs farm homestead near the start of the Rameka Track and Harwoods Hole. | **Contact:** Shannel Courtney<br>ph: 03 546 3148,<br>e-mail: scourtney@doc.govt.nz. |
| **Field trip:** Sunday 18 January, 2009, to Mt Murchison. | **Contact:** Shannel Courtney<br>ph: 03 546 3148,<br>e-mail: scourtney@doc.govt.nz |

## Canterbury Botanical Society

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| **Summer Camp: Friday 9 January – Friday 16 January 2009 at Totaranui Homestead,** Abel Tasman National Park. | **If you would like to come, contact:** Margaret Geerkens, ph: 03 352 7922 or e-mail: bert.marg@xtra.co.nz with your name(s) and send a deposit of $40 per person to **Canterbury Botanical Society, Summer Camp — Totaranui, P.O Box 8212, Riccarton, Christchurch 8440.** Please make your cheque payable to the Canterbury Botanical Society. |
| **Meeting: Friday 30 January.** Alastair Macdonald will hold a *Hebe* identification evening. Come and test your skills on samples of *Hebe*. Please bring several samples of *Hebe* from your garden or wherever. Alastair has designed a key for us to use. It will be an informal evening with a chance to chat with other members. | The meeting is one week early due to Friday 6 February being Waitangi Day and also the next camp in the Craigieburn Forest Park. |
| **Field trip:** Saturday 31 January 2009 to Prices Valley from 10.00 a.m. to 1.00 p.m. Limited to 30 people. An easy trip. | **Leader:** Miles Giller, e-mail: broadleaf@actrix.gen.nz, ph: 03 313 5315. |
| **Field trip/camp:** Friday 6 February to Sunday 8 February**,** Waitangi Weekend, to Craigieburn in conjunction with the New Zealand Alpine Garden Society. More details will be sent to you when you book. A deposit of $25 is required when booking. | **Contact:** Ryan Young, ph: 352-7896, e-mail: ryan.young@xtra.co.nz. |

## Botanical Society of Otago

The next event is a free BBQ on Friday 6 March, 2009, at 12:00 noon.