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 64. MARCH 2009 Deadline for next issue: Thursday 16 April 2009

Message from the President

There is some good news and there is some bad news. I think that I should start with the bad news. This is about our threatened and uncommon plants. You will read below that, in a paper just published by Peter de Lange *et al.* in the *New Zealand Journal of Botany*, the news is indeed bad. Over one-third (38%) of the native flora is now included as threatened or uncommon. Overall, the conservation status of our vascular flora is worsening with 7.6% of this flora now regarded as threatened with extinction! There is mention of extinctions and the authors conclude, amongst other things, that "we stand to lose from the wild a wealth of botanical diversity, including such iconic species as *Clianthus puniceus* and *C. maximus* and other equally significant but less well-know plants such as *Ceratoecephala pungens, Lepidium kirkii*, and *Pimelea actea*". I urge all of you to read this paper and I would also ask that you do all you can to make this bad news known to the media. That the extinction of such species as the iconic kakabeak is now inevitable (unless immediate action is taken) is a matter that needs to be made very public. Very relevant to all of this bad news is the appalling fact that in New Zealand we have very few people who have been formally trained in plant taxonomy. Is it acceptable that at a time when the conservation status of our flora is declining, we have very, very few people who have the training and experience to provide the basic science on which the conservation status of the indigenous flora of New Zealand is based?

There is more information in this month's newsletter about threatened plants (thanks to Danielle Hancock) and there is more information to come later this year. Threatened, endangered, vulnerable, rare, and significant are all words that have long been used in a variety of circumstances to describe the status of plants. I know from experience both in the U.K. and in New Zealand, that there has long been a liberal use (or mis-use) of these terms. How often have you heard someone cry "You can't have that development here because there are rare plants!" Rarity, in particular, has all too often been used in a subjective fashion to describe the perceived conservation status of some plant species. For a long time, many environmental consultants, including ecological consultants, seemed to be unaware that these terms can be defined very rigorously. Thankfully, the fact that these terms can be defined and indeed have to be defined on the basis of rigorous ecological science and taxonomy, is now more widely known. However, I still come across ecological consultants engaged in plant surveys who seem unaware of the science underpinning the conservation status of our plants. I find this rather frustrating in the knowledge that it is now some 20 years since Catherine Wilson and the late David Given published a comprehensive guide to the threatened plants of New Zealand.

Talking of the late and much-missed David Given, I am very pleased to report that Council has awarded the first David Given Threatened Plant Scholarship. The recipients are Peter Heenan and Rob Smissen, both of Landcare Research, Lincoln. More information about this can be found in this month's newsletter. I would also just like to add that we are doing all we can to build up the funds in the Trust for the David Given Scholarship. If anyone would like to contribute to this very worthwhile cause, then do please contact me or any member of the Council. The first award of this Scholarship is indeed good news.

More good news! You may recall or may have learnt that we had a very successful Conference at Te Papa last year. The Proceedings of that Conference have now been published and I encourage you to

PLANT OF THE MONTH – *Gahnia xanthocarpa*

Gahnia xanthocarpa. Photo: Jeremy Rolfe.

Plant of the month for March is *Gahnia xanthocarpa* (mapere). This is a giant member of the sedge family (Cyperaceae) that can grow into a dense tussock well above head height, with long drooping inflorescences reaching 3–4 m. Endemic to New Zealand, mapere is not threatened and is most common in the north of the North Island from Te Paki to Wellington. It is also found in Nelson, Marlborough, Westland and Canterbury in the South Island where it is very uncommon. Mapere grows in a range of habitats, from the coast to 800 m above sea level, preferring damp situations in sun or filtered shade. It flowers from January to April. Glossy black nuts follow; these can hang suspended from the panicles for some time. With enough room to grow, mapere makes a great feature plant for gardens. It dislikes any root disturbance so is best grown from seed, which can take some time to germinate. The Network fact sheet for *G. xanthocarpa* may be found at:
www.nzpcn.org.nz/vascular_plants/detail.asp?PlantID=1955

read your copy when you receive it by e-mail or buy a hard copy. The Proceedings include material from the presentations and the results of the workshops. It is the reports of those workshops in particular that I would like you to have a look at. The results of those workshops are helping us to shape the good work of the Network for the next five years. Let's have your feedback!

More good news and that is we continue to receive items for the Newsletter. I am particularly grateful to Amanda Baird for her very interesting and most readable article about the conservation values of part of the Chathams. The area in question is an 'extremely important habitat for threatened plants and birds'. Not only is this article a very welcome addition to the newsletter but it also serves as a very good template for others to write similar articles. There are manyother stories from lots of 'corners' throughout New Zealand that could be told. Do please keep those articles coming in; hopefully, most will be good news!

Ian Spellerberg
Lincoln University

Subscriptions

Subscriptions for the 2008–09 year are now overdue. This is a further reminder to Individual members, Student and Unwaged members. 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.

David Given Scholarship

Convolulus verecundus. Photo: David Norton.

As mentioned by the President, the recent council meeting awarded the first David Given Scholarship to Drs Peter Heenan and Rob Smissen of Landcare Research, Lincoln. The project that they submitted and which will be supported by the award, is an investigation of the conservation genetics and taxonomy of *Convolvulus* "glabrous" on the Awahokomo limestone outcrop, North Otago. It is currently known from fewer than 25 plants growing in an area no greater than 5 square metres. They plan to use the DNA fingerprinting technique AFLP to assess whether this morphologically distinct native convolvulus confined to Awahokomo limestone is as genetically distinct as three named species in the area, one of which, *C. verecundus,* is also found on the limestone tower. Congratulations to Peter and Rob. We look forward to being able to report the results of this work in a future newsletter.

What makes the south west corner of Chatham Island so special?

Amanda Baird, Department of Conservation (abaird@doc.govt.nz)

This article describes the conservation values of the south-west corner of Chatham Island—one of the most diverse landscapes of the Chatham Islands.

South-west Chatham Island encompasses dramatic coastal scenery, a fertile farming belt and forested catchments rising to a moor-like tableland containing lakes and low peaks. The south-west supports the most extensive forest on Chatham Island, expanses of upland bamboo rush and Chatham aster and important populations of threatened plants and animals. It is the only breeding sites in the world for taiko and the Chatham Island mudfish. The largest protected area occurs here with the Tuku Nature Reserve and adjoining South Chatham covenant at about 2500 hectares.

The tableland is highly distinctive. The flat to undulating topography belies the fact it is the highest region of Chatham Island at 250–280 m altitude. The island's tallest peaks occur on the tableland's northern edge.

The south-west climate is damp compared with the north of the island. Cloud cover is more persistent inland resulting in higher rainfall and lower evapo-transpiration. The gentle topography slows drainage producing wet ground conditions that favour moisture loving species such as sphagnum moss and the endemic bamboo rush (native only to Chatham Island). The latter grows with swamp heath and the endemic shrub swamp aster which produces abundant purple daisies. Dead plant material only partially decomposes in the wet conditions and accumulates as peat beds. Under the bamboo rush/heath community, the peat may be 9 m deep it overlies ash from the Taupo eruption of 20,000 years ago and water can be found about 50 cm below the surface.

Tarahinau, *Dracophyllum arboreum*. Photo: Peter de Lange.

The extensive tableland has a mosaic of vegetation types that reflect the degree of wetness and disturbance. Peats may form domes thereby creating better drained portions that allow woody plants like tarahinau trees to establish (the largest tree

in this New Zealand genus). Wetter zones may develop at the edges and encroach on forest that established in drier conditions. People have burnt the rush/shrubland thus the vegetation pattern also reflects the time since burning and the original plant cover. "Clears" originally referred to the bamboo rush aster community but more recently also refers to burnt sites with ferns and woody regeneration. The true clears are considered one of the most distinctive plant communities of the Chathams.

Pre-historic fires probably gave rise to some of the tableland lakes. The well-drained banks around the lakes support more diverse forest than that of the tableland; the mixed broadleaved-forest contains hoho valuable to wildlife such as parea. The waterside conditions and open banks are ideal for the critically threatened Chatham Island toetoe and Chatham speargrass. The threatened endemic Chatham Island mudfish is known only from Lakes Rakeinui, Te Rangatapu and Tuku-a-Taupo.

Hoho, *Pseudopanax chathamicus*.
Photo: Colin Miskelly.

The south west contains the forested headwaters of several catchments draining north towards Waitangi, including the Mangahau and Nairn. Farther south this forest continues into the large Tuku-a-tamatea and Waiparua valleys. The majority of forest on Chatham Island occurs in this sector. At least three quarters of the island's forest has been lost to the combined pressures of animals and storm damage and some clearance. The tarahinau broadleaved forest is dominated by endemic trees most prominently tarahinau but also hoho, Chatham Island matipo and Chatham Island karamu and hokataka. Tree ferns, supplejack and ground ferns often fill the understorey. Orchids may be prominent on the ground especially two endemics, a greenhood and a spider orchid. Regeneration failure, through browsing of seedlings, results in loss of the understorey and the filling of gaps in the canopy by tree ferns. None the less this is the most resilient forest with tarahinau being the toughest tree of all. Once freed of stock pressure, regeneration can be spectacular even where bracken has replaced the forest. Most trees can also establish by perching on and taking over tree ferns.

Rare trees of the forest include the endemics rautini (Chatham Island Christmas tree which has showy yellow flowers) and Barker's koromiko (the largest hebe in the country). At the turn of the 20th century, rautini was common contrasting with today; both possums and feral animals have had a devastating impact. Possum-free Pitt Island provides an interesting comparison with its abundance of rautini. Chatham Island nikau has largely disappeared along with the coastal forest but a good population occurs in the sheltered valley flats of the Waiparua River (just two other good sites occur on Chatham Island). Nearer the sea, the forest in the valleys develops a lowland character with species such as kawakawa appearing. Little of the lowland forest remains so that species like nikau and ribbonwood are largely missing; the better soils have given rise to fertile farmland home to non-native sheep and cattle.

Rautini, *Brachyglottis huntii*.
Photo: Peter de Lange.

The forests are a key habitat for several endangered birds including taiko, a large gadfly petrel, rediscovered in the Tuku-a-tamatea catchment by David Crocket in 1978. Taiko number about 150 with up to 15 pairs breeding each year in burrows on the forest floor. Parea, the endemic Chatham pigeon, declined from an island-wide distribution to just 40 birds in 1990. Habitat protection and predator control has seen recovery to more than 240 birds concentrated in this part of the island. Other native birds include Chatham Island red-crowned parakeet and Chatham Island warbler which have a wider distribution but which are well represented in the south-west. In the last few years, the Sweetwater covenant has been partially predator fenced and used to relocate taiko from the Tuku and for the expansion of the Chatham petrel population, until recently remaining only on South-East and Pitt Islands.

At the coast, the banks and bluffs feel the impact of the prevailing south-westerly winds and driven salt spray; the steepest bluffs in the south are 200 m tall and those in the west around half that. Much of the original vegetation has been lost but pockets survive where there is protection from grazing. Remnants include: coastal scrub and flax, coastal grass and herb-field and salt tolerant turfs. Coastal scrub combines tightly woven trees and shrubs often made up of akeake, Dieffenbach's koromiko, kawakawa, mahoe and hokataka. The south-west is the second most important area for the threatened kakaha or Moriori flax that grows in this scrub and flax.

Hokataka, *Corokia macrocarpa*. Photo: John Sawyer.

Next to the seashore and on exposed promontories salt tolerant succulents form a dense carpet. The most noticeable element is the endemic Chatham Island iceplant with its vibrant display of pink flowers in spring. These mats and adjacent rockier sites are also home to small populations of the poo-loving Cook's scurvy grass; this plant was eaten with other coastal species in the early exploration days to ward off scurvy.

The third community combines herbaceous species and native grasses like Cox's tussock and *Poa chathamica*. Fencing of parts of the coast has seen the expansion of coxella and Chatham Island sowthistle and, to a lesser extent, forget-me-not from ledges on to gentler slopes, these threatened mega herbs are highly admired members of the Chatham flora.

The south west corner of Chatham Island is one of the least visited regions of the main Chatham island but nonetheless an extremely important habitat for our threatened plants and birds

Generous donation

Network President, Professor Ian Spellerberg, and member Michele Frey, the editors of the book *Living with Natives*: *New Zealanders talk about their love of native plants* (Canterbury University Press), have recently informed the Council that they will donate the royalties from the book to the Network. The Council has decided that the money received will be added to the David Given Scholarship fund. All members will surely join with the Council in thanking Ian and Michele for this generous action.

Obviously, the more books sold the more that worthy fund will benefit—see the end of the newsletter for an order form

Waitakere City Council to survey for threatened plants

Danielle Hancock, Waitakere City Council (Danielle.Hancock@waitakere.govt.nz)

Waitakere City Council (WCC) in west Auckland has embarked on a project to survey all known and suspected threatened plant locations on council owned land. WCC has prepared a Biodiversity Strategy and Action Plan that identifies this project as a key activity to help restore and improve biodiversity in the city. The project will be coordinated by me in the Parks Planning team and will run for a number of years.

Though no direct funding has been allocated to the project, a small amount of funding has been received through the Strategic Projects team, enough to provide for a small trial. The trial is being undertaken by Oratia Native Plant Nursery (a Network member), whose specialist staff will survey locations where threatened plants are known to be present in parks and reserves, as well as roadsides.

The data will be kept in a confidential database that can be accessed by Parks staff, as well as added to a Council database linked to each property. When other staff search for property information, a tag will prompt them to the presence of a threatened plant and they will be able to get more information from Parks on how to manage it.

Historically, threatened plant information has been kept anecdotally and experientially, without a single database being managed. Information would then be lost with staff turnover or contractor change. This has led to a number of incidents where track and roadside plants were inadvertently damaged or destroyed through normal regular maintenance.

In order to make the data meaningful, I am also writing a Waitakere City Threatened Species Management Policy, which will include guidance on how to manage threatened plants in different situations. The policy will also include endangered animals, how to manage their habitats and releases.

WCC has also joined forces with the QEII National Trust and is seeking funding from the Biodiversity Advice Fund to verify recorded threatened plants on covenanted land. There are currently 18 QEII covenants in Waitakere and 20 Conservation Covenants, which may be surveyed.

Once the trial is complete, we will then seek additional funding to complete the survey work, set up a system for recording new sightings, and run training courses for contractors to be able to identify key threatened plants on public land.

WCC is working closely with DOC and the Auckland Regional Council to complete the survey work as well as develop the policy.

Celebrating our Native Plant Life – Network conference proceedings published

The proceedings of last year's Network conference held at Te Papa Tongarewa, Wellington, have now been published. This, the fifth annual meeting of the New Zealand Plant Conservation Network, was planned as a celebration of New Zealand's native plant life. It was also a chance to reflect on progress, since the Network's 2003 inaugural conference, towards New Zealand's implementation of the Global Strategy for Plant Conservation. The proceedings provide abstracts and/or papers of presentations from the conference. The publication also includes details of the workshop discussions and subsequent recommendations. These workshops, held to capture members' views on various aspects of plant conservation, were: in-situ protection of plant life, ex-situ management of plant life, plant promotion, advocacy and information, training and education, research.

An electronic copy of the proceedings will be emailed to Network members and conference attendees in the next week. Hard copies will be available for sale in the next two weeks at $15 (members), $25 (non-members). Please send orders to P.O. Box 16-102, Wellington, enclosing a cheque made payable to the NZPCN.

Alien species classification workshop

A team of botanists and pest managers met at Turnbull House, Wellington, in late February 2009 to develop a national system for classifying the status of alien plants in New Zealand. Terms such as Noxious Plant and Unwanted Organism have been used over the years by those involved in plant biosecurity but there has not been a quantifiable system for assessing the status of alien plants when they are grown, become established and naturalise in the New Zealand botanic region. Updates to the naturalised flora have used terms such as Casual and Naturalised but the purpose of the workshop was to develop these ideas further. This will have several benefits including enabling biosecurity managers to use a common language when dealing with alien plants (rather than each organisation using its own terms). This will also have benefits for national reporting on naturalised plants and will enable large scale trends in naturalisation rates in New Zealand to be reported. It will also provide management agencies with information that aids control of alien/naturalised species, assists setting management objectives and will demonstrate the changing status of alien species in the country. Biosecurity New Zealand funded the workshop to develop the national system. A draft system will be circulated in the coming months for comment. Project team members were: Jonathan Boow (Auckland Regional Council), Richard Duncan (Lincoln University), Mike Harre (Biosecurity New Zealand), Clayson Howell (Department of Conservation), Glen Lauder (Common Ground), Melanie Newfield (Biosecurity New Zealand), Jeremy Rolfe (Department of Conservation), John Sawyer (Department of Conservation), Peter Williams (Landcare Research) and Mike Urlich (Greater Wellington Regional Council).

For more information contact: John Sawyer (jsawyer@doc.govt.nz).

New threatened plants list published

The latest threatened plant list was published on13 March in the *New Zealand Journal of Botany*. It reveals a 60% increase in the number of Critically Endangered plants in New Zealand reflecting a worsening situation for our native flora. Over one-third (38%) of the native flora is now included as threatened or uncommon. The largest proportion of threatened plants is found in lowland places (30%), followed by montane (24%) and coastal habitats (23%).

Two species of forget-me-not (*Myosotis* species) have been declared extinct and the paper predicts that, unless action is taken soon, New Zealand risks losing more plants from the wild including the iconic kakabeak (*Clianthus maximus*).

Reference

de Lange, P.J.; Norton, D.A.; Courtney, S.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Hitchmough, R.A.; Townsend, A.J. 2009: Threatened and uncommon plants of New Zealand (2008). *New Zealand Journal of Botany* 47: 61–96.

National Botanic Garden of Belgium (NBGB) global assessment of plant translocation

The NBGB is conducting a survey about plant species translocations in the world. Plant translocation is a relatively high-risk and high-cost activity. The NBGB wishes to provide examples and case studies to define and update common standards and methodologies. Target 8 of the Global Strategy for Plant Conservation (GSPC) highlights the importance of recovery and restoration programmes for conservation. Therefore, this survey will assess the conservation value of plant species reintroduction trials by principally looking at the methods used and the results obtained from these reintroduction experiments. Because results of plant translocations are not frequently published in the scientific literature, the NBGB is asking people personally involved in plant translocation to fill out a survey to get data to inform the global assessment. For a copy of the survey (and details of where to send it), please e-mailBec Stanley (Rebecca.stanley@arc.govt.nz). The completed forms need to be returned to NBGB by 15 May 2009.

Journals available

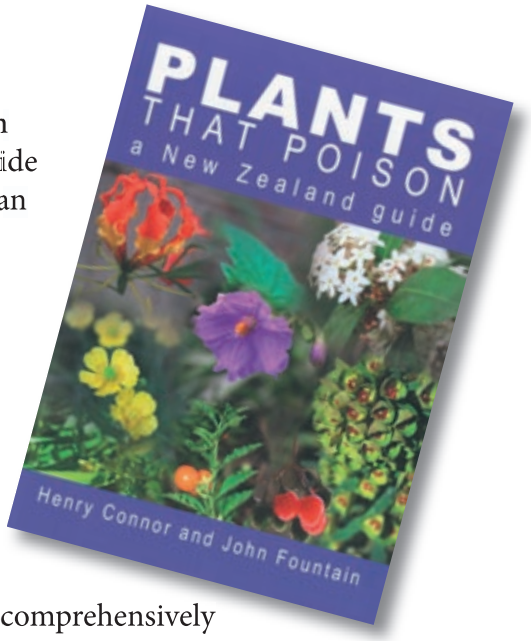
Network member, Ian Popay says he's moving office and has no room for surplus books in his new home. He has available:

- *American Journal of Botany* from Vol. 8, 1921 through to Vol. 22, 1935
- *Australian Journal of Zoology* from Vol. 1, 1953 through to Vol. 19, 1971

If any Network member is interested, Ian would be delighted to give them away to a good home. He says he has already tried the libraries, and none seems interested. He'd even be prepared to pay cartage. If interested, please contact Ian Popay (popay@woosh.co.nz).

New book – *Plants that Poison: a New Zealand guide*

by Henry E. Connor and John S. Fountain



Written by a leading authority on poisonous plants and an expert in human poisonings, *Plants that Poison: a New Zealand Guide* is a guide to a selection of plants and mushrooms with toxic properties that can be found in New Zealand—in back yards, public gardens, school playgrounds, on roadsides and in waste ground.

With a particular focus on plants that are of concern for children, the emphasis is on safety through education, to help you understand the risks so that you may avoid them. There is advice on what to do if you think you or your child has eaten something poisonous, and a section on toxic mechanisms—how the poisons act on the human body, the signs and symptoms of poisoning, and the treatment likely to be necessary.

Enlivened with historical background and interesting folklore, and comprehensively illustrated with colour photographs to aid identification, this book provides a practical and measured response to demand for information about poisonous plants in New Zealand.

The book, published by Manaaki Whenua Press, costs $29.95 + shipping—go to www.mwpress.co.nz for more information and order form.

Website news

This issue of the newsletter has been distributed as a URL to the website rather than as an e-mail attachment. This is because we have finally been able to load PDF files to the website. This function disappeared after our attack by hackers last April and has now been restored. In turn, of course, this means members can now access all archived issues of the newsletter (including those for the last 10 months).

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 1 April at 7.30 p.m. a talk by Peter de Lange titled "A taxonomic study of the genus Kunzea in New Zealand". **Venue:** Unitec School of Natural Sciences Gate 3, Building 023, Room 1018.	**Contact:** Maureen Young (e-mail: youngmaureen@xtra.co.nz).
Field trip: Saturday 18 April to Kauaeranga Valley.	**Contact:** Maureen Young (e-mail: youngmaureen@xtra.co.nz).

Waikato Botanical Society

Meeting: Tuesday 24 March at 6.30 p.m. the AGM followed at 7.00 p.m by a talk titled "Pollen can tell a story—A vegetation history and environment change from Whangapoua estuary, Great Barrier Island" by Yanbin Deng. **Venue:** University of Waikato, Room S 1.01, S Block, Gate 8 Hillcrest Rd.	If you have items for the agenda or are interested in being nominated for the committee, please contact Secretary Monica Peters, e-mail: monica.peters@landcare.org.nz or Liz Overdyck, ph 846 0965, e-mail: eg3@waikato.ac.nz .
Field trip: Friday 3 April – Sunday 5 April in conjunction with the Rotorua Botanical Society—see below.	

Rotorua Botanical Society

Meeting: Tuesday 31 March at 7.30 p.m. a talk by Chris Bycroft titled "Some Natural History from National Parks of the western United States".	**Venue:** Rotorua Women's Club on Hinemaru St., near Princes Gate Hotel.
Field trip: Friday 3 – Sunday 5 April, not the "Tongariro Crossing", but a Tongariro crossing (combined with Waikato Botanical Society). **Meet:** The car park at 6.30 p.m. Friday (please contact the leader by the previous Monday since we will car pool as much as possible and alpine trips require some organisation). **Grade:** Hard—a multi-day trip camping for two nights. **Accommodation and transport:** may use Grade 1 huts if weather is not great; additional cost may be involved; contact the trip leader for more information. There will be additional transport costs because we will not leave vehicles at the road ends.	**Leader:** Chris Bycroft, ph: 07 346-3647 e-mail: chris@wildlands.co.nz (preferable method).
Field trip: Saturday 18 April to Okareka Mistletoe Restoration Project, a Weed Control Work Day. **Meet:** Ex-Okareka store at 8.45 a.m. **Grade:** Medium-hard; activities suitable for all ages and abilities will be provided. This trip may include releasing our September plantings and weed control elsewhere in the reserve.	**Leader:** Paul Cashmore, ph: 07 348 4421 (hm), 07 349 7432 (wk), e-mail: pcashmore@doc.govt.nz.

Wellington Botanical Society

Meeting: Monday 20 April at 7.30 p.m. a talk by Ilse Breitwieser titled "The evolution of New Zealand's everlasting daisies: the more we know, the more we don't know".	**Venue:** Victoria University, Wellington, Lecture Theatre 101, Murphy Building, Kelburn Parade.
Field trip: Friday 10 April – Sunday 12 April: Easter weekend field trip to Pongaroa Reserve, northern Wairarapa. Details to be confirmed.	**Please check the website:** http://wellingtonbotsoc.wellington.net.nz/trips_2009.html
Field trip: Saturday 25 April to Te Marua Bush for a working bee. Bring: Lunch and a drink, gloves, kneeler, weed bag, and your favourite weeding tools, e.g. trowel, hand fork, loppers, pruning saw, pinch bar. **Meet**: 9.30 a.m. at Te Marua Bush (250 m north of Te Marua Store and 50 m off SH2, along the road to Te Marua Lakes, Kaitoke Regional Park), or 9.00 a.m. at Upper Hutt Station car park. **Transport**: catch 8.05 a.m. train on Hutt line from Wellington Station. If you plan to use the train, please ring a leader to arrange pickup from Upper Hutt station.	**Co-Leaders:** Glennis Sheppard, ph: 04 26 7450; Sue Millar, ph: 04 526 7440.

Nelson Botanical Society

Anniversary Dinner: The Society's 20th Anniversary will be celebrated at Fairfield House on Monday 6 April at 6.00 p.m. with a potluck dinner, followed by a talk by our guest speaker Graeme Jane (the Society's founding President). Past members and friends most welcome.	**RSVP:** by 31 March to Jocelyn Lewis ph: 03 547 2812.
Field trip: Easter Camp, 9–13 April at the Mangarakau Field Centre.	**Contact:** Don Pitham ph: 03 545-1985.

Canterbury Botanical Society

Meeting: Friday 3 April at 7.30 p.m. 'Show and Tell' with a summary of the summer camps.	**Venue:** Room A5 University of Canterbury.
Field Trip: Saturday 4 April to Waihora (Lake Ellesmere).	**Contact:** Alice Shanks, e-mail: alice@caverock.net.nz.

Lincoln BioBlitz

Time: 3.15 p.m. Friday 3 April to 3.15 p.m. Saturday 4 April. BioBlitz is a celebration of the diversity of life. It helps people understand and appreciate local biodiversity, and measure the health of their local environment. Part contest, part festival, part educational event and part scientific survey; BioBlitz is a scientific race against time. Our goal is to find as many species as we can in 24 hours in the Liffey Domain. This event is organised by the Lincoln Envirotown Trust with the support of Landcare Research, Lincoln University, Brian Mason Trust, Pub Charity and many others.	**More information:** www.lincolnenvirotown.org.nz.

Botanical Society of Otago

Meeting: Wednesday 1 April at 12.00 noon a talk by Assoc. Prof. Abby Smith, Dept of Marine Science, University of Otago. 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 22 April at 12.00 noon a talk by Rebecca Lodge, PhD candidate, Dept of Botany, University of Otago. 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 22 April at 5.20 p.m., an evening of Botanical Photography and the AGM. Rod Morris, Peter Johnson and Kelvin Lloyd will judge our third BSO photographic competition following a brief AGM. Entries will be on display, photographic tips given and prizes presented. Entries close 9 April, 5.00 p.m. See BSO website (www.botany.otago.ac.nz/bso/) for entry forms. 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 and go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt because we have to hold the door open.	**Contact:** Robyn Bridges, ph. 03 479 8372.
Field Trip: Sunday 26 April to Lower Taieri Gorge. Meet: Botany car park at 9.00 a.m. returning mid afternoon.	**Contact:** John Barkla, ph. 03 476 3686.

LIVING WITH NATIVES

Edited by Ian Spellerberg & Michele Frey
Photography by John Maillard

Politicians, artists, academics, farmers, business people – growing numbers of New Zealanders are committed to a love affair with native plants.

Whether it be in a private garden, a corporate planting, an eco-restoration area, a community or neighbourhood scheme, there is something about planting with New Zealand natives that evokes beauty, tranquillity, and the satisfaction of restoring an aspect of our environment to the way it used to be.

This collection of 44 personal narratives is sumptuously illustrated with photographs by John Maillard, who travelled from Invercargill to Auckland to bring to life the contributors' garden stories.

Contributors include Peri Drysdale, Jeanette Fitzsimons, Bob Harvey, Diana, Lady Isaac, Tim Shadbolt, Mathew Sinclair, Hugh Wilson, and a host of other New Zealanders, all well known in their neighbourhoods for their personal or community conservation projects.

The informative and often moving stories are as individual as their authors, but each records a gardener's successes (and failures) and offers sound advice based on experience.

Ian Spellerberg is the Director of the Isaac Centre for Nature Conservation at Lincoln University, and president of the New Zealand Plant Conservation Network.

Michele Frey is an Environmental and Recreational Planning Consultant in Napier.

John Maillard is the programme leader of Photography and Multimedia at Christchurch Polytechnic Institute of Technology.

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Signature: _____

Expiry date: _____

Name: _____

Address: _____

_____

_____

Phone/Email: _____

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