



NEWSLETTER OF THE NEW ZEALAND PLANT CONSERVATION NETWORK

Please send news items or events to <u>events@nzpcn.org.nz</u> Postal address: P.O. Box 16-102, Wellington, New Zealand

E-NEWSLETTER: No 102. MAY 2012

Deadline for next issue: Friday 15 June 2012

President's message

There is a lot going on for NZPCN at the moment. The signing of the Memorandum of Collaboration with Kew Gardens for the Millennium Seed Bank is a big step forward for plant conservation in New Zealand. It means that we now need to get on with the job of collecting seeds to ensure that they are stored safely in our national seed bank. Target 8 of the Global Strategy for Plant Conservation is that reproductive material of at least 75 per cent of threatened plant species are in *ex situ* collections.

Council member, Jesse Bythell has been driving the development of some fantastic posters to encourage the recording of plant distribution and phenology information. Please use some of these "works of art" to inspire others to enter their observations on the website. The Network library has recently been launched – have a look at books that others have created or generate one for your own interest area. Other work happening includes the finalization of a website strategy, the development of factsheets for introduced aquatic and wetland plants, and preparations for the AGM.

Keep sending in your stories about plant conservation efforts in your region. The newsletter reaches an audience of 600 members who are keen to learn about new discoveries, research studies, care-group activities and other information about native plants.

Philippa Crisp Greater Wellington

PLANT OF THE MONTH - BRACHYGLOTTIS SCIADOPHILA



Brachyglottis sciadophila. Photo: Jeremy Rolfe.

Plant of the Month for May is *Brachyglottis sciadophila*. This is a neat daisy that grows as a slender liane, twining or tangling either over or amongst another plant, or creeping loosely along the ground. Its stems are woody, but slender and flexible, are hairy when young and grooved lengthwise. The thin leaves are rounded, 2–3 cm wide, with toothed margins and soft hairs on the upper and lower surfaces. Solitary yellow flowers can appear from October through to May.

Brachyglottis sciadophila is a generally

uncommon species, found in lowland habitats along forest margins or in alluvial forest in restricted areas of both the North and South Islands. It grows easily from semi-hardwood cuttings and fresh seed but can be prone to sudden collapse, especially following drought, and is likely rather vulnerable to soil borne fungal disease such as *Phythophthera* spp. The Network fact sheet for *Brachyglottis sciadophila* may be found at: www.nzpcn.org.nz/flora_details.asp?ID=150

Banking our natural assets in a fridge – New Zealand joins the Millennium Seed Bank

Jesse Bythell, (<u>Jesse.bythell@orcon.net.nz</u>)

A new venture to safeguard some of New Zealand's most valuable natural assets is underway. Last month the New Zealand Plant Conservation Network (NZPCN) signed an agreement with the Kew Gardens to become a partner to its Millennium Seed Bank (MSB).

New Zealand is the 55th country to join the MSB, the world's biggest coordinated seed banking effort. It is hoped that seed banking efforts will help protect our threatened native plants such as the Chatham Island forget-me-not (*Myosotis hortensium*), which was voted New Zealand's favourite plant in 2010. The MSB provides partner countries with advice about state-of-the-art seed banking practices and access to funding assistance. New Zealand seed, however, will be kept here and not sent overseas.

"With over 1,900 species of vascular plant found nowhere else on Earth, New Zealand is considered an international 'biodiversity hotspot", says NZPCN president Phillipa Crisp. "Sadly, unlike our native wildlife, our native plants have no legal protection and almost 100 of our unique



Nationally Vulnerable Chatham Island forgetme-not (*Myosotidium hortensium*). Photo: Peter de Lange.

plant species are on the verge of extinction. There are many threats facing our native plants, such as competition from introduced plants, pest animals and habitat loss caused by land use intensification and climate change", she says.

"Protecting plants in their natural habitats is our priority, but saving and preserving seed is important for ensuring the future of threatened plants", says President Philippa Crisp. "Part of the Network's vision is that no native plant species will become extinct and a seed banking initiative is a crucial part of achieving this", she says.

The Network has hundreds of members worldwide and runs training courses, funds research through the David Given Research Scholarship, and runs the national online flora information system with more than 23,000 images of plants and species pages for close to 7000 plant species - see <u>www.nzpcn.org.nz</u>



Dr Paul Smith OBE from the Millennium Seed Banks and NZ Plant Conservation Network President Philippa Crisp sign the agreement at Auckland Botanic Gardens.

Sea spurge (*Euphorbia paralias*) – A serious new invasive weed found in New Zealand

Sarah Beadel, Wildland Consultants Ltd (<u>Sarah.Beadel@wildlands.co.nz</u>)

Recently, I discovered two small infestations of sea spurge (*Euphorbia paralias*) near the mouth of the Waihi Stream on the west coast of the North Island of New Zealand. Waihi Stream is north of Aotea Harbour, a small harbour between Kawhia Harbour and Raglan Harbour. Sea spurge is a serious invasive pest plant that has not previously been recorded as naturalised in New Zealand, but has long been expected to establish here. It is a serious threat to indigenous sand dune vegetation communities (including threatened plant species), and unvegetated fauna habitat, which is a key habitat for several nationally threatened species.

One infestation comprised only one plant with several fertile stems, just on the boundary of the Aotea Heads Scientific Reserve. The other infestation c. 50 m to the north, just north of the reserve boundary, comprised c.65 flowering plants and over 100 seedlings, covering $c.10 \times 8$ m. The age of the New Zealand population is unknown, but the larger patch has been at the site for at least two years, and probably at least 3-4 years. A specimen has been lodged in the Auckland Museum Herbarium (AK198572) and photographs are attached, including photographs from Wilsons Promontory National Park in Australia.



Euphorbia paralias: Single fertile plant about 50 m from the main infestation (since removed). North of Aotea Harbour, West Coast, North Island, New Zealand, April 2012. Photo: S.M. Beadel.

Sea spurge is native to western and southern Europe, but is widely naturalised in the coastal districts of southern Australia, and has also recently naturalised on Lord Howe Island. It is a weed of coastal environments and offshore islands and occurs on "free draining sandy soils on beaches, around estuaries, through dune fields, in coastal herbfields, grasslands, heaths and shrublands, and may also grow along rocky shorelines and in sand-filled cracks between rocks" (http://keyserver.lucidcentral.org/weeds/data/03030800-0b07-490a-8d04-0605030c0f01/media/Html/Euphorbia_paralias.htm).



Euphorbia paralias: flowers and seeds. North of Aotea Harbour, West Coast, North Island, New Zealand, April 2012. Photo: S.M. Beadel.

Sea spurge is a long-lived perennial plant 20–70 cm tall that dies back after flowering. It flowers late spring to early winter, reaching reproductive maturity in its second year. The fruit opens explosively when mature and seeds travel a short distance from the plant. It has a tap root, and a toxic sap that irritates the skin and is harmful to the eyes.

Older plants can produce up to 5,000 seeds per year. Sea spurge seeds are buoyant in sea water and can disperse over long distances on ocean currents, which is probably how it arrived in New Zealand. Seeds begin to reduce in viability only after six years in sea water.



Euphorbia paralias north of Aotea Harbour, West Coast, North Island, New Zealand; the largest patch comprising *c*.65 fertile plants and over 100 seedlings. Note the yellow flag infestation in the background.



Euphorbia paralias north of Aotea Harbour, West Coast, North Island, New Zealand: seedlings within the largest patch. Photos: S.M. Beadel, April 2012.

The infestation site is obviously a site where items floating in ocean currents wash ashore. Piles of driftwood were present, along with miscellaneous plastic items. Three other weed species were also present: yellow flag (*Iris pseudacorus*), dimorphotheca (*Osteospermum fruticosum*), and alligator weed (*Alternanthera philoxeroides*). This is probably the southern-most alligator weed population in New Zealand.

In Australia, sea spurge usually initially colonises at the back of a beach, at the base of the fore dune, and quickly develops dense infestations that stabilise the dunes. In Australia, it also creates a different dune structure from that created by indigenous plant species. In New Zealand, if allowed to establish, it is likely that it will displace many of our indigenous species, including spinifex, pingao, *Carex pumila, Calystegia soldanella, Pimelea villosa*, and sand coprosma. In Australia, it decreases the availability of beach nesting sites for shore birds and is likely to threaten birds with similar habitat requirements in New Zealand, such as New Zealand dotterel and terns.

The three current priorities are to:

- determine whether this is the full extent of the New Zealand population;
- eradicate the known infestation. Sea spurge control methods are well understood in Australia and careful removal and destruction of the plants and seeds at the infestation site using biosecure methods is obviously a very high priority; and
- develop a strategy to deal with the ongoing arrival of seed from Australia to ensure that this weed does not establish on our coasts in future.

Initial control of the two patches has been undertaken, including the removal of seed heads, pullingout of plants, and herbicide treatment of the foliage left on site. These sites will require long-term, ongoing monitoring and control to ensure that regeneration from the seed bank is killed. A strategy for dealing with the ongoing arrival of propagules from Australia also needs to be developed, to ensure that this species does not establish in New Zealand. Several agencies (DOC, Ministry for Primary Industry (MPI), Waikato Regional Council) are working together to develop a strategy to ensure that appropriate action is initiated and maintained.

Any possible sightings of this species should be reported to the MPI Pest and Disease Line (0800 80 99 66).

It is disappointing that sea spurge has arrived in New Zealand but, if this is the full extent of the New Zealand population, then appropriate, prompt and ongoing action will ensure that it is controlled and not allowed to become permanently established.



Extensive *Euphorbia paralias* infestation on the fore dune at Wilsons Promontory, Victoria, Australia. S.M. Beadel, April 2012.



Extensive Euphorbia paralias infestation on rear dunes at Wilsons Promontory, Victoria, Australia

Editor's note: As a result of the discovery of Euphorbia paralias, *the Ministry for Primary Industries has released the following additional information and request.*

Help needed as new plant discovery poses serious threat to New Zealand coastal ecosystems

The beach weed sea spurge, *Euphorbia paralias*, as noted above, has recently been found at one New Zealand beach near Aotea Harbour (Waikato) and may be present at others. If it established in New Zealand this invasive weed is likely to seriously impact the coastal environment.

Sea spurge infestations have caused major environmental problems at many Australian beaches where it displaces native plants and natural patterns of sand movement. It will reduce the recreational value of beaches as it covers areas of bare sand and the sap of sea spurge is white, toxic and sticky. Its seeds can survive for months or years at sea, so it may have arrived here on ocean currents.

The Ministry for Primary Industries, Department of Conservation and Waikato Regional Council have started control of the known infestation site. Work is also needed to determine if the weed has established elsewhere in New Zealand. Survey work is underway in areas near the Aotea Harbour site, but it may be found on many beaches so the public's help is being sought.

Please report any discovery of the species by calling the Ministry for Primary Industries exotic pest line (0800 80 99 66). Please do not disturb the plants because this could spread the seeds. Take a photo and note the location as accurately as possible (GPS coordinates are ideal). However, if you don't have access to a camera, take a sample of the plant and store it in a cool humid place (in a sealed plastic bag in a fridge is ideal), being careful to avoid getting the toxic sap on your skin and do not disturb seed heads. Ministry for Primary Industries staff will tell you what to do with the sample once you call the exotic pest line.

Sea spurge is a hardy European shrub that thrives in sand dunes (see photos above). It has multiple stems that are often reddish at the base and support spiky, tightly-packed blue/green leaves which are approximately 4–20 mm long and 1–16 mm wide. Green flowers bloom at the tips from September to May and the flower stems die off each year. The milky sap that oozes from broken stems is toxic to people and animals. The plants can grow to about 100 cm tall in dense clusters.

See a more detailed description on the Network factsheet:

<u>Sea spurge (Euphorbia paralias)</u>

Sea spurge is most likely to be found on or behind the front dune or within flotsam. General easterly currents and drift within the Tasman Sea mean that much of New Zealand could receive sea spurge seed from Australia. However, the most likely areas include northern New Zealand from Cape Egmont to East Cape, with Manakau Harbour to Rangaunu Harbour being particularly at risk. Within the South Island, areas such as Farewell Spit, Golden Bay, Tasman Bay, Southland and Stewart Island are most likely to receive seed.

Sea spurge looks superficially similar to the rare native shore spurge (*Euphorbia glauca*) and New Zealand linen flax (*Linum monogynum*). Native shore spurge is easily distinguished because it has much larger leaves (30-80 mm long) than sea spurge. New Zealand linen flax is also easily distinguished because its stems are not reddish at the base and do not exude a milky sap when broken.

Plant images come flooding in

As a result of the article in the last newsletter that listed all the native plant species for which we did not have an image we have received many photos from Network members and botanists. A fully illustrated native flora is not far away!

Particular thanks go to: Phil Garnock-Jones, Geoff Rogers, Jane Gosden, Nick Singers, Dave Toole, Colin Ogle, John Barkla, Jeremy Rolfe, Jessie Prebble, Sandra Wotherspoon, Alice Shanks, Ian Bell, Simon Walls and Eleanor Burton. We are now processing these images and will load them shortly. A full list of the image gaps



A photo of *Epilobium gracilipes* submitted by Colin Ogle in response to the rquest for images.

is in the News archive (see link under the news box on the website homepage) so if you have images that can help plug any of these please send them to the Network at: <u>info@nzpcn.org.nz</u>

Now for the challenge: Images still needed of exotic plants

Can you help us plug the last gaps in our exotic vascular flora image library? We have illustrated 55% of New Zealand's exotic vascular plant species but we still need images for 1164 taxa listed in this link: www.nzpcn.org.nz/publications/Images%20still%20needeof%20exotic%20plants-May-2012.pdf

If you can help us please send named images to the Network at <u>info@nzpcn.org.nz</u>, with the name of the photographer and details of where the image was taken. If you have multiple images please post them on a CD to NZPCN, PO Box 16-102, Wellington. The list on the website (link above) is a perfect photographer's hit list for your spring field trip.

Lastreopsis kermadecensis, a new fern species from Raoul Island

The March issue of the *New Zealand Journal of Botany* has a paper (Perrie and Brownsey, 2012) that formally describes a new species from Raoul Island. According to the authors, it has long been thought that a potentially distinct species of *Lastreopsis* occurs on Raoul Island in the Kermadec Islands, and it is described in this paper as *L. kermadecensis* Perrie et Brownsey sp. nov. The new species has previously been allied with *L. glabella* or *L. pacifica*, but is morphologically most similar to *L. smithiana* from eastern Australia, sharing similar indumentum, gland and rhizome characteristics. *Lastreopsis kermadecensis* differs from *L. smithiana* in having less-divided fronds with fewer catadromous primary pinnae, some clathrate scales on the stipes, larger spores and in being tetraploid. Its conservation status has previously been rated as At Risk/Naturally Uncommon IE, OL (de Lange et al., 2009). Additionally, notes are provided on the circumscription of *L. pacifica*, particularly with regard to Samoan material, which may be distinct.

References

Perrie, L.R., Brownsey, P.J. 2012: *Lastreopsis kermadecensis*, a new fern species from Raoul Island in the Kermadec Islands, New Zealand, with notes on *L. pacifica. New Zealand Journal of Botany* 50(1): 29-36.

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

Taxonomic notes on the New Zealand flora: new names in Veronica (Plantaginaceae)

Also in the March issue of the *New Zealand Journal of Botany* is a paper by Peter Heenan about nomenclature in the genus *Veronica* (Heenan, 2012). Two new combinations are made in *Veronica* at species rank. The new combinations are *Veronica saxicola* (de Lange) Heenan for *Hebe saxicola* de Lange and *Veronica maccaskillii* (Allan) Heenan for *Heliohebe maccaskillii* (Allan) D.A. Norton & Molloy.

Reference

Heenan, P.B. 2012: Taxonomic notes on the New Zealand flora: new names in *Veronica* (Plantaginaceae). *New Zealand Journal of Botany* 50(1): 87-88.

Third volume of NZ biodiversity inventory published

Stacey Doornenbal, Canterbury University Press (<u>stacey.doornenbal@canterbury.ac.nz</u>)

New Zealand has become the first country to catalogue its entire living and fossil biodiversity and, with the release of the latest book from Canterbury University Press, that full inventory is now available in print. *New Zealand Inventory of Biodiversity* (Volume 3), edited by NIWA biodiversity scientist Dr Dennis Gordon, is the culmination of an international effort he led involving 237 other New Zealand and overseas authors. The *New Zealand Inventory of Biodiversity* (Volume 3) will be launched at Te Papa, Wellington, on 21 May.

This is the final book in a comprehensive three-volume inventory that offers the first full review of New Zealand's entire known species of animals, plants, fungi and micro-organisms – some 56,000-plus living and 14,000-plus fossil species – covering all life in all environments, from the Cambrian to the present day. The latter includes both native and naturalised alien species. The three volumes are associated with Species 2000, an international scientific project that aims to record all named species on Earth in one online list called the Catalogue of Life.

"I didn't anticipate that this project would take so long, but it should not be surprising that a 1758-page review and inventory of 'all of life through all of time' in New Zealand, involving specialists in 19 countries, has taken a decade to come to completion," said Dr Gordon.

"The project was launched in February 2000 at the Species 2000: New Zealand Millennial Symposium in Wellington and the papers that were presented formed the basis of the fuller accounts given in the trilogy of volumes now published. But experts had not yet been found for some groups of organisms in 2000 and the challenge of

filling the remaining gaps persisted through the decade. In the end, all the gaps were filled, some as recently as in the last six months of the project, making this biodiversity inventory the most complete for any country. It will have many applications."

Volume 1 (2009) and Volume 2 (2010) covered the animal kingdom, while Volume 3 deals with the remaining groups of life – bacteria, protozoans, algae, plants and fungi. Volume 1 catalogues the branches of the animal kingdom that include living and fossil sponges and corals, worms and shellfish and their relatives, and vertebrates – the fishes, amphibians, reptiles, birds and mammals. Volume 2 mostly deals with the major branch of the animal kingdom known as Ecdysozoa (moulting animals), which includes arachnids, centipedes and millipedes, crustaceans, insects and related marine worms.

To mark the release of the final volume, Canterbury University Press is also releasing the three books as a boxed set presented in a specially designed slipcase. The full details are:

Gordon, D.P. (ed.) 2012: *New Zealand Inventory of Biodiversity* (Volume 3), published by Canterbury University Press. RRP NZ\$89.95, hardback, 616pp, incl. 16pp colour, ISBN 978-1-927145-05-0.

Gordon, D.P. (ed.) 2009, 2010, 2012: *New Zealand Inventory of Biodiversity* (boxed set containing three volumes), RRP NZ\$180, ISBN 978-1-927145-28-9.

For further information and orders contact: mail@cup.canterbury.ac.nz



Community conservation volunteers applaud nature space website

A new website for community groups and landowners protecting and restoring New Zealand's natural environment is seen as a valuable tool for their vital work.



Approximately 60 community conservation groups have so far signed up to the new Nature Space website, launched last week by the Department of Conservation's Wellington Hawke's Bay Conservancy, lower North Island councils and WWF New Zealand.

Sought by conservation volunteers who are increasingly seeking online support, the website allows groups and individuals to store and share data, promote their efforts, and find useful resources.

"Nature Space provides a great set of "howto" resources for our volunteers across all of our projects," says Peter Cooper of Rimutaka Forest Park Charitable Trust. "It's especially handy for us to see what other community restoration project groups are doing, so that we can learn from one another."

CURRENT FORUM THREAD

• Could anyone provide me with some tips about germination of ferns; when to collect spore producing fronds, anything helpful?

"With more than 3500 community groups and 5000 covenant owners restoring and protecting New Zealand's biodiversity, Nature Space registrations are expected to quickly soar", says DOC's Matt Barnett, co-founder of the website.

A running tally on the home page of data contributed to date reveals over 500,000 plants in the ground, 4200 conservation group members, and 2700 possums and 900 stoats killed.

Rotating stories on the home page invite people to read about inspiring restoration achievements and an interactive map pinpoints project locations for people wanting to join. Nature Space also links to a wealth of online resources offered by the supporting agencies.

"Nature Space clarifies what <u>ecological restoration</u> really is and how we should go about doing it," says Peter Russell, of Wellington's Manawa Karioi restoration group.

The Nature Space website can be viewed at <u>www.naturespace.org.nz</u>.

If you would like to know more about the portal and how community groups in your region could get involved please contact <u>info@naturespace.org.nz</u>

Network launches online library

The Plant Network has now built an online library where you can store books that you have made on the website. Click on the link below:

Network library

The first book available from the library is the Network's book about last year's top 10 favourite plants. We recommend coming back in due course to see what books members have made.

The book making system is available to Network members and allows you to select up to 20 plant species for inclusion in your own book. The website harvests text and images from the website database to create the book.

Once you have made a book you can save it into the on-line library for other people to download and read.



Make my own book - instructions

Want to help manage our flora mapping system?

We are looking for a volunteer keen to help process corrections to the Network's flora distribution database. Currently, Network members and members of the public are sending through corrections to the species maps using the feedback button. We need someone to process these corrections so that we can improve the accuracy of the plant distribution database. Please contact the Network if you are interested in helping with this task or have any queries about it (email: info@nzpcn.org.nz). It is expected that the work will take about 30 minutes each week. Knowledge of native plants and experience in the use of plant databases is preferred.

Distribution and phenology poster

A sample poster is attached to the back of the newsletter. The Network is producing a range of posters like this to encourage people to record distribution and phenology observations. The posters will be available on request. Pin them up at work, in council offices and libraries, university departments, in DOC information offices, etc. Send your requests for copies to: <u>info@nzpcn.org.nz</u>, including information about where in the country the posters will be displayed so that we can send copies with a relevant view.

Two funding opportunities

Royal Botanic Gardens, Kew, Small Grants 2012.

Through the Bentham-Moxon Trust, Kew Gardens (UK) makes 30 to 40 small grants per year to botanists and horticulturists for plant collection and field research; international visits or work at Kew; travel and conferences; and other project support. Preference is for grants that involve a developing country. The closing date for applications is 30 September 2012. Further information: http://www.kew.org/about-kew/policies-information/bentham-moxon/index.htm

The Endeavour Awards

The Australian Government's internationally competitive, merit-based scholarship programme providing opportunities for citizens of the Asia Pacific, the Middle East, Europe and the Americas to undertake study, research and professional development in Australia. Awards are also available for Australians to undertake study, research and professional development abroad. Further information:

http://www.deewr.gov.au/International/EndeavourAwards/Pages/Home.aspx

UPCOMING EVENTS

If you have important events or news that you would like publicised via this newsletter please email the Network (<u>events@nzpcn.org.nz</u>):

8th Asia Pacific Conference on Algae Biotechnology for the Asia Pacific Society for Applied Phycology

Conference: Adelaide, Australia, 9 – 12 July	Contact: Conference Secretariat:
(<u>www.sapmea.asn.au/apcab2012).</u>	ph: +61 8 8274 6048;
	fax: +61 8 8274 6000;
	email: <u>apcab2012@sapmea.asn.au</u>

Auckland Botanical Society

Meeting: Wednesday 6 June at 7.30 p.m. for a talk by Janeen Collings titled 'Three Kings threatened plants'. Venue: Unitec School of Health Sciences, Gate 4, Building 115, Room 2005.	Contact: Bec Stanley (<u>Rebecca.</u> <u>Stanley@aucklandcouncil.govt.nz</u>).
Field trip: Saturday 16 June to Tauhoa. Leader: John Lambert.	Contact: Maureen Young (youngmaureen@xtra.co.nz)

Kaipatiki Project

Community Planting Day: Saturday 2 June at 9.30 a.m. Venue:	More info:
Francis Kendall Reserve, Kaipatiki Road, Glenfield, North Shore,	www.kaipatiki.org.nz/volunteer
Auckland. Free BBQ for all planters, bring a spade if you have one.	

Rotorua Botanical Society

Field trip: Saturday 9 June to the Upper Rangitaiki River wetland oxbows and frost flats. Meet: the car park, Rotorua, at 8.30 a.m. Grade: easy. Advance information of vehicle registration numbers is required in order to get permits to enter the forest. Please email me details a week in advance, 4WD required but there will be spare seats available if you do not have 4WD, booking is advisable to secure your space!	Leader: Sarah Beadel, ph: 07 345 5912, mobile 021 924 476, email: <u>Sarah@wildlands.co.nz</u>
Meeting: mid winter—a Rotorua Botanical Society Lecture by Graeme Jane titled 'Georgia'. Venue and time: to be announced.	Contact: secretary Sarah Crump (<u>scrump@doc.govt.nz</u>)
Wanganui Museum Botanical Group	
Field trip: Thursday 31 May to Kumete Stream, Westmere (note : this is a WEEKDAY trip). See: <u>www.kumeteforest.org.nz</u> for more information. Meet: Police Station at 9.00 a.m. Bring spades to help with planting.	Leader: Clare Ridler.
Meeting: 5 June at 7.30 p.m. for a talk by Peter Frost titled 'Conserving tropical forests'. Venue: Museum's Davis lecture	Contacts: Robyn and Colin Ogle, ph: 06 347 8547,

Nelson Botanical Society

theatre.

Field trip: Saturday 4 – Monday 6 June jointly with Forest and Bird to Gerald Hindmarsh's QEII covenant and to Shannel Courtney's convenant. Limited accommodation available in cabins at the Pohara Motor Camp.	Leaders: Julie McLintock, ph: 03 545 0989, and Gavid Grinsted, ph: 03 542 4384.
Meeting: Monday 18 June at 7.30 for a talk by David Sissons on the use of spinifex and pingao for the restoration of the natural character and function of the coastal dunes of Tasman and Golden Bays.	Venue: Jaycees Room in Founders Park, Nelson.

email: <u>robcol.ogle@xtra.co.nz</u>

Canterbury Botanical Society

Meeting: Saturday 9 June at 10.30 a.m. the Annual General	Contact: Gillian Giller,
Meeting followed by a talk by Marion Winter titled 'Galapagos	ph: 03 313 5315,
visit'. Venue: St Ninian's Church Hall.	email: <u>ggillerma1@actrix.gen.nz</u> .

Otago Botanical Society

Meeting: Wednesday 23 May at 12.00 noon, a talk by Prof. Steven Stephenson, Department of Biological Sciences, University of Arkansas, Fayetteville, USA, titled 'Beyond New Zealand: Global Biodiversity of Myxomycetes'. Venue: Union St Lecture Theatre, corner Union St West & Great King St.	Contact: Trish Fleming, ph: 03 479 7577.
Meeting: Wednesday 23 May at 5.20 p.m. at talk by Prof. Steven Stephenson, Department of Biological Sciences, University of Arkansas, Fayetteville, USA Ascension Island titled 'A Lesson in Terraforming'. 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.
Meeting: Wednesday 20 June at 5.20 p.m. a talk by David Toole titled 'Alpine gems of the South Island'. 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 23 June to Quarantine Island. Meet: Botany Department car park at 9:00 a.m. or 9:30 a.m. at Port Chalmers. Cost: \$10. (Wet weather reserve day 24 June.)	Contact: Bill Wilson, ph: 03 477 2282.
Yellow-eyed Penguin Trust	
Planting day: Sunday 27 May at Tavora Reserve, East Otago. Meet: at the Tavora car park at 10.00 a.m.	Further information: the Yellow- eyed Penguin Trust ph: 03 479 0011, email: <u>yeptrust@gmail.com</u> .

Look again...

Oioi/jointed wire rush seeding



PLAX, CONSERVATION HER

Visit the New Zealand Plant Conservation Network website and register as a plant recorder. Share your plant distribution observations and note what the plant was doing (e.g. flowering or seeding).

www.nzpcn.org.nz

Inset photo: John Barkla Main photo: Antoine Hubert