



TRILEPIDEA

NEWSLETTER OF THE NEW ZEALAND PLANT CONSERVATION NETWORK

Please send news items or events to events@nzpcn.org.nz

Postal address: P.O. Box 16-102, Wellington, New Zealand

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President's message

Happy New Year! First on your list is to check out our fantastic new look website. Access to different parts of the site is now easier to find and the layout is both attractive and functional. The website makes good use of the beautiful photos that we have of our native flora. With your help, we have made such good progress in building the image library that there are only 154 native vascular plant species images left to find to reach our goal of fully illustrating New Zealand's native flora. Check out the list in this newsletter and help us with those last images.

Kauri being voted New Zealand's favourite plant of the year (and tradescantia voted as the worst weed) generated some good media coverage this year. The fact that kauri won our competition has been used to lobby for funding to combat kauri disease. I'm pleased to see that northern rata made the top 10 of favourites. These stunning trees are having a good flowering year in the Wellington forests. We have an article in this newsletter on some impressive conservation work being completed on kakabeak by Forest Liferforce Restoration Trust. We wish them all the best in their efforts to restore this Nationally Critical species.

New Zealand's plant life receives online makeover

The plant life of New Zealand has never looked so good as in the online makeover of the hugely popular New Zealand Plant Conservation Network website (www.nzpcn.org.nz). Thanks to design work by Cerulean (www.cerulean.co.nz) and web development by Propel (www.propel.co.nz), the Network website has been refreshed to improve user access to the massive plant database.

This recent makeover has increased the size and clarity of the images, widened the website viewing window and optimised web searches using tablets such as the iPad. Feature plants have been added to the home page and a navigation bar has been included to help users explore the site.

It is nearly 10 years since the NZPCN's website was launched and in that time it has grown to become an invaluable resource for anyone studying, growing, restoring and learning about native and exotic plants in New Zealand. Close to half a million visits are made to the website each year. The website now has 7,600 species pages, more than 23,000 photographs and over 1.4 million plant observations (and growing!). The website now includes vascular plants, liverworts, macroalgae, mosses and fungi. The most recent additions are the charophytes thanks to work by NIWA funded by the government's TFBIS (Terrestrial and Freshwater Biodiversity Information Systems Programme).

This website redesign work is the first stage in implementing the Network's new five-year website strategy that was published in 2012. If you have additional ideas for improving the site please email them to the Network at info@nzpcn.org.nz



PLANT OF THE MONTH – *AGATHIS AUSTRALIS*



Agathis australis. Photo: Jeremy Rolfe.

Plant of the month for January is kauri (*Agathis australis*); voted New Zealand's favourite plant for 2012.

Kauri is a distinctive endemic tree; part of a family of trees that includes the monkey puzzle of South America, the Norfolk Island pine and the recently discovered wollemi pine of New South Wales. Its natural range is in the north of the North Island, from Te Pahi south to Pukenui (near Kawhia) in the west and near Te Puke in the east.

Young kauri have a columnar growth form with the trunk scarcely free of branches—called the 'ricker' stage. As the tree matures, the lower branches are progressively lost, eventually leaving the typical bare trunk of mature kauri. Mature trees can reach heights of 30–60 m.

Although not strictly regarded as threatened, much of the large area that kauri forest once covered has been cleared and now as little as one per cent remains. Kauri on private land remains vulnerable to illegal logging and trees are periodically removed (by permit or approval) for cultural purposes, such as making waka.

More recently, kauri dieback (also known as *Phytophthora* taxon *Agathis* or PTA) has caused the death of kauri trees and has become a serious issue. It kills kauri of all ages and sizes. Symptoms include yellowing of foliage, leaf drop, dead branches and tree death.

You can see the Network fact sheet for kauri at: www.nzpcn.org.nz/flora_details.aspx?ID=2047

***New Zealand Journal of Botany* award**

Congratulations to Network member Dr Peter Heenan of Landcare Research on receiving the inaugural *New Zealand Journal of Botany* prize.



Dr Peter Heenan (left) receives the inaugural *New Zealand Journal of Botany* award from Associate Professor Julian Eaton-Rye.

To mark its 50th birthday in 2013, the *New Zealand Journal of Botany* has initiated an annual prize for outstanding contributions to the flora of the Southern Hemisphere.

The award will alternate between researchers who have a sustained record for excellence and those early-career researchers who have published a significant paper in recent issues of the journal.

The inaugural prize was presented to Dr Heenan for his outstanding contribution to Southern Hemisphere botany. He has been a loyal contributor to the *New Zealand Journal of Botany* for many years and his work has had a profound impact on our understanding of the systematics of New Zealand flora. He has published a large number of papers with a substantial citation rate in the journal.

The award was presented to Dr Heenan by Associate Professor Julian Eaton-Rye of the University of Otago, one of the journal's associate editors, at the recent symposium held at the University of Otago to celebrate the life and work of John Buchanan.

Image library keeps growing but goal not yet reached

Thanks to many people around the country, the Network's online plant image library is growing quickly. In the last month, volunteers have loaded hundreds of images to the Network website taken by many different photographers including Colin Ogle, John Barkla, Fred Overmars, Philip Smith, Astrid van Meeuwen-Dijkgraaf, Jesse Bythell and Jeremy Rolfe.

A further 33 native vascular plant species have been illustrated in the last 10 months. As a result, the website now has 93.6% of the native vascular flora and 55% of the exotic vascular flora fully illustrated. Groups that are now fully illustrated include *Abrotanella*, *Acacia*, *Acaena*, *Adiantum*, *Carmichaelia*, *Hymenophyllum*, *Metrosideros*, *Nematoceras*, *Pterostylis* and *Thelymitra* among many others. Our goal is to fully illustrate the indigenous vascular flora and with your help we may be able to achieve that in 2013.



If you see the image (left) on a species page then it means we still need photographs. The 154 native vascular plant species for which we are still searching for images are listed below. If you can help plug this gap, send your high resolution image by email to info@nzpcn.org.nz or post a CD to PO Box 16-102, Wellington.

<i>Aciphylla indurata</i>	<i>Gentianella serotina</i>	<i>Pimelea hirta</i>
<i>Aciphylla trifoliolata</i>	<i>Geranium microphyllum</i>	<i>Pimelea mesoa</i> subsp. <i>mesoa</i>
<i>Agrostis imbecilla</i>	<i>Geum albiflorum</i>	<i>Pimelea nitens</i> subsp. <i>aspera</i>
<i>Agrostis subulata</i>	<i>Gingidia enysii</i> var. <i>peninsulare</i>	<i>Pimelea nitens</i> subsp. <i>nitens</i>
<i>Anthosachne multiflora</i> subsp. <i>multiflora</i>	<i>Gingidia flabellata</i>	<i>Pimelea oreophila</i> subsp. <i>ephaistica</i>
<i>Astelia nivicola</i> var. <i>moriceae</i>	<i>Gingidia trifoliolata</i>	<i>Pimelea oreophila</i> subsp. <i>hetera</i>
<i>Azorella macquariensis</i>	<i>Gleichenia inclusisora</i>	<i>Pimelea oreophila</i> subsp. <i>lepta</i>
<i>Brachyglottis traversii</i>	<i>Glossostigma cleistanthum</i>	<i>Pimelea sericeovillosa</i> subsp. <i>alta</i>
<i>Callitriche aucklandica</i>	<i>Glossostigma diandrum</i>	<i>Pimelea suteri</i>
<i>Cardamine depressa</i> var. <i>depressa</i>	<i>Haastia recurva</i> var. <i>wallii</i>	<i>Pimelea traversii</i> subsp. <i>borea</i>
<i>Cardamine latior</i>	<i>Hebe angustissima</i>	<i>Pimelea traversii</i> subsp. <i>exedra</i>
<i>Carex cremnicola</i>	<i>Hebe cockayneana</i>	<i>Pimelea urvilleana</i> subsp. <i>nesica</i>
<i>Celmisia cordatifolia</i> var. <i>brockettii</i>	<i>Hebe crenulata</i>	<i>Plantago udicola</i>
<i>Celmisia cordatifolia</i> var. <i>similis</i>	<i>Hebe divaricata</i>	<i>Poa acicularifolia</i> subsp. <i>ophitalis</i>
<i>Celmisia gibbsii</i>	<i>Hebe flavida</i>	<i>Poa antipoda</i>
<i>Celmisia glandulosa</i> var. <i>longiscapa</i>	<i>Hebe leiophylla</i>	<i>Poa aucklandica</i> subsp. <i>aucklandica</i>
<i>Celmisia hieraciifolia</i> var. <i>gracilis</i>	<i>Hebe matthewsii</i>	<i>Poa aucklandica</i> subsp. <i>campbellensis</i>
<i>Celmisia parva</i>	<i>Hebe murrellii</i>	<i>Poa celsa</i>
<i>Celmisia rigida</i>	<i>Hebe stricta</i> var. <i>lata</i>	<i>Poa cockayneana</i>
<i>Celmisia rupestris</i>	<i>Helichrysum selago</i> var. <i>acutum</i>	<i>Poa dipsacea</i>
<i>Celmisia similis</i>	<i>Hierochloe brunonis</i>	<i>Poa intrusa</i>
<i>Celmisia verbascifolia</i> subsp. <i>membranacea</i>	<i>Hierochloe recurvata</i>	<i>Poa maia</i>
<i>Chionochloa flavescens</i> subsp. <i>lupeola</i>	<i>Hydrocotyle robusta</i>	<i>Poa ramosissima</i>
<i>Chionochloa flavescens</i> subsp. <i>hirta</i>	<i>Kelleria lyallii</i>	<i>Poa xenica</i>
<i>Chionochloa pallens</i> subsp. <i>pilosa</i>	<i>Koeleria riguorum</i>	<i>Polygonum plebeium</i>
<i>Chionochloa rigida</i> subsp. <i>amara</i>	<i>Lachnagrostis billardierei</i> subsp. <i>tenuiseta</i>	<i>Puccinellia antipoda</i>
<i>Chionochloa vireta</i>	<i>Lachnagrostis glabra</i>	<i>Puccinellia macquariensis</i>
<i>Chionohebe ciliolata</i> subsp. <i>fiordensis</i>	<i>Lachnagrostis leptostachys</i>	<i>Ranunculus biternatus</i>
<i>Clematis petriei</i>	<i>Lachnagrostis littoralis</i> subsp. <i>littoralis</i>	<i>Ranunculus mirus</i>
<i>Colobanthus squarrosus</i> subsp. <i>drucei</i>	<i>Lachnagrostis pilosa</i> subsp. <i>nubifera</i>	<i>Ranunculus pilifera</i>
<i>Colobanthus squarrosus</i> subsp. <i>squarrosus</i>	<i>Lachnagrostis striata</i>	<i>Ranunculus simulans</i>
<i>Craspedia robusta</i>	<i>Lepilaena bilocularis</i>	<i>Ranunculus stylosus</i>
<i>Craspedia uniflora</i> var. <i>grandis</i>	<i>Leptinella atrata</i> subsp. <i>luteola</i>	<i>Raoulia hookeri</i> var. <i>laxa</i>
<i>Craspedia uniflora</i> var. <i>subhispidata</i>	<i>Leptinella intermedia</i>	<i>Rytidosperma biannulare</i>

<i>Craspedia uniflora</i> var. <i>uniflora</i>	<i>Leptinella trillii</i> subsp. <i>pulchella</i>	<i>Rytidosperma exiguum</i>
<i>Craspedia viscosa</i>	<i>Libertia mooreae</i>	<i>Rytidosperma viride</i>
<i>Deschampsia gracillima</i>	<i>Luzula banksiana</i> var. <i>orina</i>	<i>Schizeilema allanii</i>
<i>Dracophyllum pearsonii</i>	<i>Luzula crenulata</i>	<i>Schizeilema colensoi</i>
<i>Dracophyllum politum</i>	<i>Luzula decipiens</i>	<i>Schizeilema nitens</i>
<i>Epilobium alsinoides</i>	<i>Luzula traversii</i> var. <i>tenuis</i>	<i>Schizeilema pallidum</i>
<i>Epilobium cockayneanum</i>	<i>Myosotis venosa</i>	<i>Senecio glaucophyllus</i> subsp. <i>toa</i>
<i>Epilobium elegans</i>	<i>Myrmechila formicifera</i>	<i>Senecio radiolatus</i> subsp. <i>antipodus</i>
<i>Epilobium krulleanum</i>	<i>Notogrammitis angustifolia</i> subsp. <i>angustifolia</i>	<i>Stellaria decipiens</i> var. <i>angustata</i>
<i>Epilobium matthewsii</i>	<i>Notogrammitis gunnii</i>	<i>Stilbocarpa lyallii</i>
<i>Euchiton ruahinicus</i>	<i>Olearia colensoi</i> var. <i>argentea</i>	<i>Trisetum serpentinum</i>
<i>Festuca contracta</i>	<i>Pachycladon crenatus</i>	<i>Uncinia sinclairii</i>
<i>Festuca deflexa</i>	<i>Parahebe spectabilis</i>	<i>Wahlenbergia albomarginata</i> subsp. <i>laxa</i>
<i>Festuca matthewsii</i> subsp. <i>matthewsii</i>	<i>Parsonsia capsularis</i> var. <i>ochracea</i>	<i>Wahlenbergia pygmaea</i> subsp. <i>drucei</i>
<i>Festuca ultramafica</i>	<i>Parsonsia capsularis</i> var. <i>tenuis</i>	<i>Wahlenbergia pygmaea</i> subsp. <i>tararua</i>
<i>Forstera sedifolia</i> var. <i>oculata</i>	<i>Petalochilus minor</i>	<i>Zotovia acicularis</i>
<i>Gentianella antipoda</i>	<i>Pimelea aridula</i> subsp. <i>oliga</i>	
<i>Gentianella montana</i> subsp. <i>montana</i> var. <i>stolonifera</i>	<i>Pimelea concinna</i>	

New Zealand's favourite plant 2012



The Favourite Plant votes for 2012 and have been tallied and it is clear that Kiwis love their forests. The 2012 Favourite Plant winner is kauri (*Agathis australis*) and all other native plants in the top 10 are trees or shrubs.

The Network first ran the favourite plant vote in 2002 and since the early days trees have been popular with voters. Previous winners can be viewed [here](#).

“The size and longevity of trees means these plants often signify important places or times in people’s lives” says Network President, Philippa Crisp. For many people, Kauri epitomises the grandeur of a large forest tree and voters passionately describe it as our ‘forest king’ and a ‘taonga’. A recurring theme was people’s concern for kauri dieback (*Phytophthora* taxon *Agathis* (PTA)). Voters also commented on the important role kauri has played in our history and culture, providing us with materials such as gum and timber. Kauri create its own unique forest type that supports a diverse range of plants and animals.

It is clear from voters’ comments that Kiwis are keen gardeners and avid conservationists. Voters demonstrated in-depth knowledge about how best to grow their favourite native plant (and why particular weeds are so worrisome as well as practical advice on control methods).

The full list of species nominated and the voters’ comments can be viewed [here](#).

New Zealand's worst weeds identified in national poll

Tradescantia fluminensis, more commonly known as wandering Jew or wandering willie topped the Plant Conservation Network's inaugural national poll to find New Zealand's worst weed. *Tradescantia fluminensis* highlights how many plants become weedy. This creeping herb was originally brought to New Zealand from Brazil as an ornamental plant but by 1916 it had already jumped the garden fence. Now this plant is widespread in forests, scrub, riverbanks and cliffs in the North Island and frost free parts of the South Island. This plant can reproduce from the smallest fragment and quickly smothers low-growing native plants such as ferns and prevents tree seedlings reaching adulthood.



Tradescantia fluminensis. Photos: Jeremy Rolfe

Some voters' comments about their nominated plant included:

- “This is the ship rat of the plant world”—Wayne.
- “Not only is it invasive and impossible to get rid of, it is the one of the main causes of skin problems in dogs”—Deborah
- “Widespread, rapid coloniser, suppresses desirable seedlings, hard to kill by weeding or herbicide”—Mike.
- “It changes the ecosystem, spreads from tiny fragments and I have spent a lot of time trying to eradicate it from many places. It has to be the worst”—Dave

Over 50 weeds were nominated including Chilean flame creeper, Chinese privet and Canary island date palm. The list is a who's who of New Zealand's weed problems and includes *Agapanthus* in the top 10—a plant still commonly used in gardens despite its potential to spread. Veldt grass came a close second with voters describing it as the bane of their existence and destroying gardens, dunes and school projects.

The list of people's top 10 worst weeds for 2012 is:

1. *Tradescantia fluminensis* (wandering Jew or wandering willie)
2. *Ehrharta erecta* (veldt grass)
3. *Convolvulus arvensis* (convolvulus)
4. *Araujia sericifera* (moth plant)
5. *Asparagus scandens* (climbing asparagus)
6. *Pinus contorta* (lodgepole pine)
7. *Ligustrum lucidum* (tree privet)
8. *Ulex europaeus* (gorse)
9. *Agapanthus praecox* subsp. *orientalis* (agapanthus)
10. *Arundo donax* (giant reed)



Ehrharta erecta, voted second worst weed for 2012. Photo: Jeremy Rolfe.

The range of Worst Weeds nominated indicated the many ways in which unwanted plants affect our indigenous plant communities such displacing our native plants or modifying their habitat. Most voters had a personal story behind the plant that vexed them the most.

To read the full results and comments go to: www.nzpcn.org.nz/flora_vote_results.aspx

Taking a shot at kakabeak recovery

Pete Shaw, Forest Lifeforce Restoration Trust (petenjulespohokura@hotmail.com)

It is October 18, 2008, and elder brother Willie Shaw and I were scrambling our way up a steep spur in the Waiau Bluffs, Te Urewera National Park. The reason? In 1983, Willie and wife Sarah Beadel



Wild kakabeak discovered November 2012. Photo: Forest Lifeforce Restoration Trust.

had searched these same bluffs and discovered a lone kakabeak (ngutu-kaka, *Clianthus maximus*) here. It had not been seen again in the intervening 25 years and remains one of only three historic reports for the whole of the extensive Waiau catchment. A sidle out onto the bluffs along one narrow game trail proves fruitless. “Looks too easy anyway from what I remember”, muses Willie. Further hand-over-fist climbing reveals another narrow game trail snaking through the bluffs. We follow it and Willie comments “This looks more like it” and, at that very moment, a burst of bright red flowers is revealed before us. Remarkably, after 25 years, his “bush compass” has proved accurate and led us back to the plant. A quick search uncovers another kakabeak some six metres uphill, also in flower. Subsequent searching of the bluffs in 2008 revealed another two plants perched on bluffs in the vicinity. Surprisingly several *Teucrium pavifolium* and *Rubus squarrosus* were also found, the only records for these species within all of Te Urewera National Park.

I work for Simon Hall, Chairman of the Forest Lifeforce Restoration Trust (www.forestlifeforce.org) and owner of the Maungataniwha Native Forest (6,120 ha) that abuts Te Urewera National Park.

Simon also owns the Maungataniwha Pine Forest (6,294 ha), a half share in Te Hoe Station (1,376 ha) and Pohokura (11,348 ha) all situated in inland Hawke’s Bay. Additionally, he has a 22.7 ha property at Lake McKerrow in Fiordland National Park. The Forest Lifeforce Restoration Trust is composed of Patron, Rachel Hunter, Chairman, Simon Hall and Trustees, Dr John McLennan and me. The Trust oversees restoration work on Simon Hall’s properties and other projects where deemed appropriate. Following the discovery of kakabeak on the Waiau Bluffs, Simon Hall approved funding for the construction of three enclosures within the Maungataniwha Native Forest. At \$5,000.00 each, this represents a considerable investment from his own purse. The Department Of Conservation has provided consent for the collection of seed from the wild plants within Te Urewera National Park. Searches have been conducted on the Waiau Bluffs and within the Te Heru-O-Tureia Reserve, alongside the Mohaka River. To date, the Waiau Bluffs now hold five live wild plants although, sadly, Willie’s original plant has died. In Te Heru-0-Tureia, eight previously unrecorded wild plants have been found. Three plants have also been discovered by the Lister family of Willowflat, one of which subsequently died from goat browse. The overall known live wild Hawke’s Bay kakabeak population has risen from 10 in 2007 to 26 currently.



Waiau Bluffs, Te Urewera National Park; the site of wild kakabeak is arrowed. Photo: Forest Lifeforce Restoration Trust.

In the Maungataniwha Native Forest, the three enclosures have been planted with kakabeak planted from seed propagated from wild plants. Propagation has been undertaken by DOC’s

Ahuriri Volunteer Nursery, overseen by Alan Lee, and by Marie Taylor's Plant Hawke's Bay Nursery. There are currently 150 kakabeak within the three Maungataniwha enclosures. A fence has been constructed on the Waiiau Bluffs to exclude browsers and 35 kakabeak planted there alongside the wild plants. The Maungataniwha plantings have had mixed success with frost killing a number of plants. It has been a steep learning curve for the Forest Lifeforce Restoration Team. One crucial factor has been learning about sites that best suit kakabeak. Kakabeak guru Graeme Atkinson, DOC East Cape, summed up the species' preference succinctly by saying "They're an edge plant, they don't like direct sunlight but love that dappled light say just in from the edge of a kanuka grove and you see them perched on the edge of the bluffs out in the wild".

Input from DOC staff has been crucial in getting Trust members up to speed on the ecology of the plants. Riki Winitana and Sandra Elia, DOC Waikaremoana, Helen Jonas, DOC Wairoa, and Alan Lee, DOC Napier, have all readily contributed their knowledge. Rayonier Hawke's Bay has also come on board the kakabeak crusade, funding the fencing out of goats around the plants the Listers found, and the propagation of plants and have plans to create their own enclosures to plant up. Recent genetic research funded by DOC and conducted by Gary Houlston, Landcare Research has outlined the genetic composition of the wild plants and also provided clear guidelines on which kakabeak can be planted together.

Where is this all heading? The big stumbling block for any plans for kakabeak has always been the amount and diversity of seed available. The creation of the enclosures at Maungataniwha is an attempt to create "Seed Orchards"—a bulk supply of seed. The ultimate goal is to load shotgun rounds with seed and blast seed back on to safe havens from a helicopter, kick starting the wild population. Barry Crene works for the Trust at Maungataniwha and has successfully trialled this technique.

With only just over 100 plants remaining in the wild for all of New Zealand, the clock is counting down.



Barry Crene displays the successful results from his shotgun trials, Maungataniwha Native Forest 2012. Photo: Forest Lifeforce Restoration Trust.

Marae-based courses

Gecko NZ Trust delivered three plant training courses on behalf of the New Zealand Plant Conservation Network to North Island iwi using the Network publication "*Introduction to plant life in New Zealand*". Gecko crafted a learning programme in conjunction with Riki Bennett, Ngati Pikiao, who is a reknowned educator of Maori material culture, which linked plants not only to botanical information but also to cultural knowledge and understanding of plant uses (rongoa, musical instruments, weaving, etc.). Gecko's objective was to increase awareness and knowledge for local iwi in their rohe so they would want to continue learning and strengthen any interest in on-going ecological restoration.

Mauri Ora ki Ngati Whatua Charitable Trust Wananga

Participants from seven marae were represented at the wananga, including chairs and key officers of the Marae Committees. Ngaroimata assisted with the logistics and a key supporter was Richard Nahi, local marae leader and kaumatua who also holds a Maori Liaison position with Auckland Council, Rodney area. The photos (Figure 1) show some of the activities completed by participants as part of the course: leaf stencilling to become familiar with the different shapes and sizes of leaves; a visit to Maunga-Tokatoka—a reserve managed by DOC—to identify different plants using Latin, common and Maori names; reviewing material in the resource book together for collaborative learning and a karakia before the group entered Maunga-Tokatoka Reserve.



Otara Kokiri te Rahuitanga ki Otara Wananga

Participants were drawn from parents and youth associated with a South Auckland Maori health and social services complex, Otara Kokiri te Rahuitanga ki Otara Trust, which includes a kohanga reo. The land around the complex (spans a road) is large and although it is adjacent to a stream that is being cared for, the rest is mainly grass and uncared for land. For the onsite ecological work, Totara Park reserve, a short ride away, was used. This area of Auckland Council rainforest was a good teaching example of what is needed in a healthy ecological forest and participants quickly picked up how to implement ideas back at the complex. As a result, they are looking at a potential forest grove they can work on first to show others at the complex what is possible.

Te Uri O Hau Wananga

Participants were drawn from various marae in North Kaipara that are linked to the Cultural Heritage Trail and Marae Biodiversity Project recently launched by Te Uri O Hau Settlement Trust. The aim was to build capacity within the hapu so people would be confident about taking the role of Kaitiaki for their tupuna marae and area. The Project involves four local high and primary schools/ kura kaupapa as well as four tupuna marae and ten hapu marae in the area. Te Uri O Hau Settlement Trust has received 18 settlement sites from the Government and wants to include these along with other iwi-owned and private Māori landowner sites to create a trail for educational purposes, which includes restoration of the sites. The project also encourages each of the four tupuna marae to plan and deliver a biodiversity project around their marae. The photos show Kaumatua and Project

Leader for Te Uri O Hau Cultural Heritage Trail and Marae Biodiversity project, Mikaera Miru, two participants discuss what they are going to report back to the group after acting as professional ecologists providing advice to the landowner on the health of the forest, and reviewing the day one learning at the start of day two.



The meaning of a plant name

Over 1100 plant name meanings have been added to a new etymology field on many website species pages. Etymology is the study of the history of words, their origins, and how their form and meaning have changed over time. The Network's etymology database provides insights into why species have a particular genus or species name.

Definitions will appear immediately below the species' name on each plant page. If no definition is visible then it means we have not yet found one and if you can help plug these gaps or provide corrections to any definitions, please send them to the Network (e-mail to info@nzpcn.org.nz).

UPCOMING EVENTS

If you have important events or news that you would like publicised via this newsletter please e-mail the Network (events@nzpcn.org.nz):

Dune Restoration Trust conference

Conference: Tuesday 5 March to Thursday 7 March; optional Golden Bay/Farewell Spit field trip 8–9 March. **Venue:** Tahuna Beach Holiday Park, Nelson. **Early registration date:** 8 February, final registration 28 February.

Information: <http://www.dunetrust.org.nz/news-and-events/conference-2013/>

New Zealand Epiphyte workshop

Workshop: Thursday 21 to Saturday 23 February. Venue: Brian Bellringer Pavilion, New Plymouth. **Registration:** by 1 February, space limited.

Information: www.waikato.ac.nz/eri/epiphyte or e-mail: epiphytes@waikato.ac.nz

5th Global Botanic Gardens Congress

Dunedin, Sunday 20 to Friday 25 October 2013. Proposals for symposia, papers and posters can be submitted online at www.5GBGC.com.

Auckland Botanical Society

Field trip: Friday 25 to Monday 28 January, Anniversary Weekend
Camp at Lake Waikaremoana.

Contact: Leslie Haines.

Field trip: Saturday 16 February, Te Muri, Mahurangi Heads.
Leader: Maureen Young.

Contact: Bec Stanley,
e-mail: [Rebecca.Stanley@
aucklandcouncil.govt.nz](mailto:Rebecca.Stanley@aucklandcouncil.govt.nz)

Kaipatiki Project

EcoFest & EcoWest 2013: Community organisations and businesses with an eye for environmental action and sustainable living are invited to take part in two eco-festivals taking place throughout March.

To register an event, contribute a talk or display, or offer sponsorship or donations:
www.ecofest.org.nz or contact:
Louisa Chase, Festival Manager
(EcoFest North), Kaipatiki
Project Environment Centre,
e-mail: [festival@kaipatiki.org.
nz](mailto:festival@kaipatiki.org.nz), ph: 09 482 1172 or Leanne
Roche or Anna Fomison, Festival
Managers (EcoWest), Ecomatters
Environment Trust, e-mail:
ecowest@ecomatters.org.nz, ph:
09 826 4276.

Community bush blitz: Saturday 2 FEBRUARY and 2 MARCH.
Meet: 17 Lauderdale Road, Birkdale, North Shore, Auckland. Time:
9.15 a.m. start. Come and help us remove weeds from Witheford
Reserve—no chemical sprays, just muscle, enthusiasm and a few
laughs. Tools and morning tea provided. Groups welcome.

More information: [www.
kaipatiki.org.nz/volunteer](http://www.kaipatiki.org.nz/volunteer)

Nursery bites: FREE native plant propagation workshops on
Tuesdays from 12 February until 2 April. Venue: Kaipatiki Project
Environment Centre, 17 Lauderdale Road, Birkdale, Auckland.
Time: 9.30 a.m.–12.30 p.m.

For weekly topics and bookings:
see www.kaipatiki.org.nz/courses

Bush walk and walk - Kauri series: Monday 11, 18 and 25
February to learn to identify NZ native trees and other plants.
Venue: North Shore, Auckland (exact location advised on
booking). Time: 6.00–8.00 p.m. Cost: \$15 per person for three
walks.

For locations and to book: [www.
kaipatiki.org.nz/courses](http://www.kaipatiki.org.nz/courses)

Rotorua Botanical Society

Field trip: Saturday 23 February to Erua, National Park. **Meet:** the
car park Rotorua 8.00 a.m. or Taupo Police Station at 9.00 a.m.
Grade: medium, gumboots advised.

Leader: Philip Smith, ph: 07
378 0571 (a/h), e-mail: [philip@
tauponativeplant.co.nz](mailto:philip@tauponativeplant.co.nz)

Wellington Botanical Society

Field trip: Saturday 2 February to the west branch of the
Wainuiomata River. Booking is essential so we can advise the
GWRC ranger. Meet: 9.00 a.m. sharp at Reservoir Rd, off Whitcher
Grove, off Moores Valley Rd, Wainuiomata.

Leader: Chris Hopkins,
ph: 04 564 3980, deputy-leader
(tbc): Chris Horne, ph: 04 475 7025.

Meeting: Monday 18 February at 7.30 p.m. for a talk by Carlos Lehnebach, Curator of Botany, Te Papa, titled 'Reserves real estate NZ spider orchids: new species; pollination studies'.

Venue: Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade; enter building off Kelburn Parade about 20 m below pedestrian overbridge.

Field trip: Saturday 2 March to Cannon Point Walkway, Upper Hutt. **Meet:** 9.30 a.m. at Bridge Road car park, Birchville.

Leader: Sheelagh Leary, ph: 04 527 7380.

Nelson Botanical Society

Field trip: Friday 1 to Monday 4 February, Anniversary Weekend camp. **Venue:** Hanmer.

Contact and Leader: Cathy Jones, ph: 03 546 9499

Field trip: Sunday 17 February to Mt Campbell, Arthurs Range. Meet: Please phone leader for time and place details, visitors welcome.

Leader: Beryce Vincenzi ph: 03 528 4549

Canterbury Botanical Society

Meeting: Friday 1 February at 7.30 p.m., topic and speaker to be confirmed.

Contact: Gillian Giller, e-mail: ggillerma1@actrix.gen.nz

Field trip: Saturday 9 February, destination to be confirmed.

Contact: Gillian Giller, e-mail: ggillerma1@actrix.gen.nz

Otago Botanical Society

Meeting: Wednesday 27 February at 5.20 p.m. for a talk by John Barkla titled 'Tales from the Southern Ocean'. **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 Lytle](mailto:David.Lytle@otago.ac.nz), ph: 03 454 5470.
