



# TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 134

January 2015

Deadline for next issue:  
Monday 16 February 2015

## SUBMIT AN ARTICLE TO THE NEWSLETTER

Contributions are welcome to the newsletter at any time. The closing date for articles for each issue is approximately the 15th of each month.

Articles may be edited and used in the newsletter and/or on the website news page.

The Network will publish almost any article about plants and plant conservation with a particular focus on the plant life of New Zealand and Oceania.

Please send news items or event information to [events@nzpcn.org.nz](mailto:events@nzpcn.org.nz)

### Postal address:

P.O. Box 16102,  
Wellington 6242,  
NEW ZEALAND

## PLANT OF THE MONTH, p. 2



*Leptinella atrata* subsp. *luteola*.  
Photo: Rebecca Bowater.

## Marbleleaf/putaputaweta (*Carpodetus serratus*)

Jesse Bythell, Council member ([jesse.bythell@orcon.net.nz](mailto:jesse.bythell@orcon.net.nz))

While tramping in Fiordland over the New Year, I was entranced by a wonderful, vanillary scent wafting through the warm air in the low altitude broadleaf-podocarp forest. I thought it might be one of the bamboo orchids *Earina aestivalis* or *E. mucronata*, but was unable to spot either orchid flowering in the canopy. It wasn't until I returned home and caught a whiff of the young marbleleaf flowering in my garden that I realised the source of the delightful odour.

Marbleleaf/putaputaweta (*Carpodetus serratus*) is a small tree, growing 6–9 m in cultivation (Metcalf, 1987). Its Maori name means 'many holes for weta' and refers to the tunnels created in the trunks by puriri moths which are often later used as shelters by weta. The English common name refers to the mottled appearance of the leaves that resembles the pattern of light through sheets of marble. Marbleleaf occurs throughout New Zealand, typically in beech forest, from coastal to montane areas. It prefers moist, moderate to good soil, although it can tolerate drier conditions (*ibid.*).

I have several marbleleaf planted at home and I think it makes a practical and beautiful specimen tree. Its tangled, radially symmetrical juvenile form is handsome and persists for about 3–4 years. The mottled leaves are a fine contrast to surrounding plants and the pale bark is very pretty. I can highly recommend growing this hardy, beautiful, fast-growing, sweet-smelling and often overlooked native tree.



*Carpodetus serratus*: (left) the distinctive 'marble' pattern on the leaves; (right) a click beetle (Family: Elateridae) forages on *Carpodetus serratus* flowers. (Scale = 5 mm). Photos: Jeremy Rolfe.

## References

NZPCN Marbleleaf fact sheet: [http://www.nzpcn.org.nz/flora\\_details.aspx?ID=1605](http://www.nzpcn.org.nz/flora_details.aspx?ID=1605)

Metcalf, L.J. 1987: *The cultivation of New Zealand trees and shrubs*. Reed Methuen Publishers Ltd: Auckland.

## PLANT OF THE MONTH – *LEPTINELLA ATRATA* SUBSP. *LUTEOLA*



*Leptinella atrata* subsp. *luteola*. Photo: Rebecca Bowater.

Plant of the month for January is *Leptinella atrata* subsp. *luteola*. This interesting and beautiful yellow scree button daisy is found in sub alpine to alpine regions of eastern Marlborough and North Canterbury. It is known only from four locations: Black Birch Range, Mt Manukau, Kahutara Saddle and Mt Terako. Its habitat is sparsely vegetated mobile scree slopes.

*Leptinella atrata* subsp. *luteola* has thick, leathery, green reddish leaves and stout, extensively branching roots that enable it

to survive in what is surely a very harsh environment. As implied by the sub-species name, the flowers are yellow (or brown) but when not in flower, it is a tricky plant to see, blending into the scree. It can be seen in flower December to January. Its current conservation status is At Risk—Naturally Uncommon.

The closely related *L. atrata* subsp. *atrata* is obviously a very similar species. They can be distinguished by the fact that the flowers of subspecies *atrata* are deep red, almost black, in colour with grey, feathery leaves. This subspecies can be found from North Canterbury to northern Otago and is not considered at risk.

The Network factsheet for *L. atrata* subsp. *luteola* can be found at: <http://www.nzpcn.org.nz/flora/details.aspx?ID=562>; we would love to have additional images so, if you have any, please forward them to [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz).

### Stuart Park Restoration Project, Titahi Bay, Wellington

Astrid van Meeuwen-Dijkgraaf, Council member ([Astrid@wildlands.co.nz](mailto:Astrid@wildlands.co.nz))

We are pretty excited—John Hornblow managed to stumble upon another interesting find: a steep seaward gully with a mixed population of *Melicytus* aff. *obovatus* (a) (AK 235617; Cook Strait) and *Melicytus crassifolius* and hardly any weeds other than an occasional karo (*Pittosporum crassifolium* or *P. ralphii*) or gorse seedling.

Robyn Smith, Greater Wellington Regional Council, thinks that this may be the second largest population of these species in the Wellington region. We've already had a go at pulling and cutting the karo and gorse and will scramble up and down a few more times to make sure the indigenous species win. We're keeping an eye on the plants and will collect seed as soon as it ripens. We will then propagate this seed and plant the steep windy coastal faces that are currently dominated by gorse.

We need to do some more botanising to get a complete species list (anybody keen to come with us?) but other species noted so far include pigweed (*Chenopodium triandrum*), New Zealand ice plant (*Disphyma australe* subsp. *australe*), rauhaia (*Linum monogynum* var. *monogynum*), the common variety of native spinach (*Tetragonia implexicoma*), and large old tauhinu (*Ozothamnus leptophyllus*). Who knows what we'll find next?

## Canterbury Botanical Society report on Kaitorete Spit October field trip

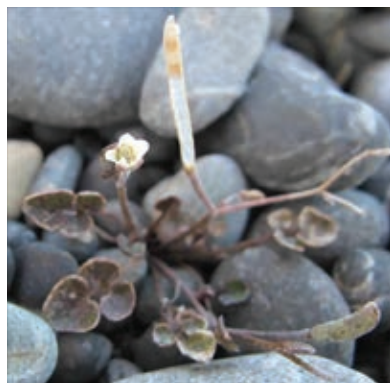
Melissa Hutchison ([Melissa.Hutchison@wildlands.co.nz](mailto:Melissa.Hutchison@wildlands.co.nz)) and Brian Patrick ([Brian.Patrick@wildlands.co.nz](mailto:Brian.Patrick@wildlands.co.nz)) Wildlands Consultants, Christchurch

A magnificent warm spring day greeted the 32 participants who came to explore three fascinating and different natural communities on Kaitorete Spit. First, we explored Hauroko covenant and its coastal frontage of LINZ land at the western edge of Birdlings Flat. The conservation importance of native shrubland in the covenant and its ongoing management were highlighted, as was the local community's fine effort in weeding out exotic *Gazania* from the foreshore cushionfield/grassland. Both plant communities are regarded as nationally rare ecosystems and the Spit is a *Muehlenbeckia* hotspot, with all of New Zealand's five species present, and the best national populations of two of them – *M. astonii* (Nationally Endangered) and *M. ephedroides* (Declining). Pingao (*Ficinia spiralis*, Declining) and sand tussock (*Poa billardierei*, Declining) also have their major national strongholds here, along with the nationally threatened red katipo spider (*Latrodectus katipo*).

The group proceeded to explore the area, pulling out some weeds and discovering some new native plants for the site: *Hoheria angustifolia* and shore dock *Rumex neglectus*, to add to the single wind-shorn *Kunzea* found recently in the covenant. Other highlights were the endemic Kaitorete broom, *Carmichaelia appressa*, a possible new species of *Galium* growing in bare shingle and the cushionfield of *Raoulia australis* and *Scleranthus uniflorus*. A small population of a diminutive *Cardamine* was also found in the shingle; this may be endemic to Kaitorete Spit and Banks Peninsula. Two orchids appear to be very local in the area: *Thelymitra longifolia* and *Microtis*. Canterbury boulder and common copper butterflies were quite numerous over several *Muehlenbeckia* species, along with a threatened tortricid moth *Eurythecta robusta*, which has a flightless female. The katipo spider was located nearby under driftwood, along with the introduced look-alike *Steatoda capensis* from South Africa.



Possible new native *Galium* species.



An undescribed native *Cardamine*.



Foredunes with extensive pingao.

After lunch, we proceeded to Kaitorete Spit Scientific Reserve, where members radiated out to look for special plants, after stopping to view some *Corokia cotoneaster* shrubland. The endemic broom was joined here by a few plants of *Carmichaelia corrugata* (Declining), large areas of the diminutive grass *Zoysia minima*, and another local endemic, the undescribed *Craspedia* 'Kaitorete'. The possible new *Galium* species was also found here, this time growing in cushions of *Raoulia australis*. Locally abundant low shrubs of *Pimelea prostrata* were in flower and covered in butterflies (southern blues and boulder coppers), flies, and small wasps. The foredunes contained large patches of *Carex pumila* and a small colony of akeake, as well as diminishing numbers of yellow lupin, thanks to ongoing weed control by DOC. The group was surprised to see sheep grazing the reserve, and wondered what impacts the elevated soil fertility and disturbance might be having on the native plant community.

We then headed for Waihora Scientific Reserve, with its vegetation sequence adjoining Lake Ellesmere/Waihora. A tall shrubland of saltmarsh ribbonwood (*Plagianthus divaricatus*) with abundant *Muehlenbeckia complexa* and rushes is bordered to the south by what appears to be an unremarkable dry grassland. How wrong we were! On our hands and knees, we were introduced to a suite of rare species: the tiny native carrot *Daucus glochidiatus* (Nationally Vulnerable), *Geranium retrorsum* (Nationally

Vulnerable), *Raoulia monroi* (Declining), bright green cushions of *Colobanthus brevisepalus* (Naturally Uncommon), and the cryptic *Leptinella serrulata* (Naturally Uncommon). In addition, a suite of locally uncommon plants such as *Acaena buchananii*, *Vittadinia australis*, *Convolvulus waitaha*, *Dichondra repens*, *Muehlenbeckia axillaris*, *Carex resectans*, and the exotic *Isolepis marginata* were found over a small area. This site also appeared to be grazed, with the result being elevated fertility and the possible loss of native species over time. Only on the most shingly dry sites were native dry grassland species thriving, with the rest of the site dominated by exotic species. The group felt that it would be useful if ongoing monitoring was initiated to determine the effects of grazing on native plants in the reserve. Soon it was 5:30 p.m. and time to head home after an amazing day of comradery and discovery on Kaitorete Spit; undoubtedly one of the most special and important parts of our coastline nationally.



Botanising at Waihora Scientific Reserve. Fan-leaved mat daisy *Raoulia monroi*. *Colobanthus brevisepalus*.

## A Fiordland find

Jesse Bythell, Council member ([jesse.bythell@orcon.net.nz](mailto:jesse.bythell@orcon.net.nz))

In February 2014, while working above Breaksea Sound in south-western Fiordland, I had the pleasure of seeing *Dracophyllum fiordense* for the first time. A colleague returning from an evening stalk mentioned seeing a massive and unusual looking *Dracophyllum*, which piqued my curiosity. Another work colleague, Alex Fergus, and I were very keen to investigate and rose extra early the following day in order to have the time to explore before our scheduled helicopter pick up. Following the directions we'd been given, we made our way through the morning mist along a steep ridgeline intermittently covered in montane beech forest and subalpine scrub. After searching for some time, we decided to turn back so we wouldn't miss our transport and then, luckily, a few metres later we stumbled across the lone *Dracophyllum fiordense*.

This fantastic looking shrub with its tufted crown and corkscrew-like leaves looks like it should be on the pages of a children's book. We snapped some photos in the low morning light whilst hurriedly admiring it and then dashed back to our pick-up point.

I was treated to a second viewing of this elusive shrub almost a year later (January 2015) in the upper reaches of Morraine Creek in the Darren Mountains. This time, there were half a dozen *Dracophyllum fiordense* plants scattered across a terminal moraine covered in subalpine scrub (such as *Hebe subalpina*, *Dracophyllum menziesii*, *Carmichaelia arborea*, and *Olearia moschata*). Exploring several valleys in this mountain range and adjacent ranges this summer I have spotted this elusive shrub only once.



## New Zealand Indigenous Flora Seed Bank (NZIFSB)—Dr Peter Giovannini visits from the Millennium Seed Bank, RBG, Kew

Craig McGill ([c.r.mcgill@massey.ac.nz](mailto:c.r.mcgill@massey.ac.nz)) and Jessica Schnell ([j.l.schnell@massey.ac.nz](mailto:j.l.schnell@massey.ac.nz)) Massey University



Peter Giovannini and Jess Schnell discussing the collecting strategy.

The New Zealand Indigenous Flora Seed Bank welcomed Dr Peter Giovannini (International Projects Officer, Millennium Seed Bank, Royal Botanic Gardens, Kew) when he visited the seed bank in Palmerston North for a week earlier this month. The New Zealand Indigenous Flora Seed Bank has been operating for just over one year now so the visit was an opportunity to take advantage of Peter's and the Kew's long experience in collecting and banking seed of wild species and review the processes within seed bank. There was also a chance to discuss the collaborations planned for 2015 with Kew's Millennium Seed Bank.

Time was also found for seed collecting expeditions in the Wellington Region at Baring Head, the Akatarawa Forest Park and Queen Elizabeth Park. Seeds of a number of dryland and forest species were collected, including *Tetragonia implexicoma*, *Olearia rani* var. *colorata*, *Brachyglottis repanda* and *Coprosma repens*. This was the first collecting expedition for 2015. More collecting expeditions are planned for late summer and through into autumn in both the North and South Islands. Jessica Schnell will be in contact with trained collectors as the collecting locations and collecting dates are finalised.



Vanessa Angster collecting *Tetragonia implexicoma* fruits

Peter's visit was very productive from both a learning and banking perspective with many ideas exchanged and seed collected to add to the accessions already held in the seed bank. No doubt, Peter also appreciated the warm summer weather that the region provided for the week in contrast to the wintery conditions he left behind in the United Kingdom.

### Copy for Trilepidea

As will be apparent from the size of this issue (half the average size), we have been very short of copy this month. With all the field trips and camps, particularly over recent weeks, and private trips there must surely have been some botanical finds that are worth reporting to other members of the Network. Conversely, there may have been species that were not found that one would have expected to have found in the relevant area. Let us have reports on these observations; there are some examples in this issue to illustrate the type of material we are happy to receive. The submitted text does not have to be word perfect on first submission we are willing to work with inexperienced authors to polish the text, however, in that case please submit the text well before copy deadline. Reports and notes for Trilepidea may be sent to [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz).

Similarly, because of the summer field activity, people may have taken photos of various plants that would add to or substitute for ones in our image collection. We are particularly interested in images where the image at right appears in the Plant Search Results on the website, since that means we have no image of the plant.



If sending in single images, they may be sent to [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz) but if you have multiple images we would prefer that you send them on a CD to:

New Zealand Plant Conservation Network  
P.O. Box 16-102  
Wellington 6242  
New Zealand

## UPCOMING EVENTS

If you have important events or news that you would like publicised via this newsletter please email the Network ([events@nzpcn.org.nz](mailto:events@nzpcn.org.nz)):

### Auckland Botanical Society

---

**Field trip:** Saturday 21 February jointly with the Entomological Society, Auckland Branch, to Waitakere Ranges' Cutty Grass and Ian Wells Tracks.

**Leader:** Sandra Jones.  
**Contact:** Maureen Young  
([youngmaureen@xtra.co.nz](mailto:youngmaureen@xtra.co.nz))

---

### Kaipatiki Project

---

**Bush Walk & Talk—TOTARA Series:** Monday 9, 16 and 23 February. **Where:** Albany, Glenfield and Birkenhead. **Time:** 6.00-8.00 p.m. **Cost:** \$18 for all three guided walks.

**Locations and bookings:** [www.kaipatiki.org.nz/courses](http://www.kaipatiki.org.nz/courses)

---

### Ecofest North 14 March – 12 April

---

**Festival:** fun, practical events to celebrate environmental action and sustainable living on the North Shore and up to Matakana. Supported by Auckland Council and Ray White North Shore, and co-ordinated by Kaipatiki Project Environment Centre.

**Information:** [www.ecofest.org.nz](http://www.ecofest.org.nz), facebook/ecofestnorth, facebook/sustainablewhanauchallenge, [festival@kaipatiki.org.nz](mailto:festival@kaipatiki.org.nz) or ph: (09) 482 1172

---

### Rotorua Botanical Society

---

**Field trip:** Sunday 2 February to Ururua Scenic Reserve and Lake Rotohokahoka, Mamaku Plateau. **Meet:** at the car park beside the Rotorua Police Station at 8.30 a.m. or at Mamaku School (South Road) at 9.00 a.m. **Grade:** easy to medium.

**Leader:** John Hobbs, ph: 07 348 6620; email: [jffhobbs@clear.net.nz](mailto:jffhobbs@clear.net.nz).

---

**Field trip:** Saturday 8 March to Mt Tarawera (combined with Rotorua Forest and Bird) (Sunday 9 March reserve day) **Meet:** at the car park beside the Rotorua Police Station at 8.00 a.m. or DOC Ashpit Road campground, Lake Rerewhakaaitu, at 8.45 a.m.

**Grade:** medium-hard and, in particular, confident in walking on steep mobile scoria slopes and along high, sharp ridges.

**Registration:** essential with trip leader by Monday 3 March at the latest. Minimum age 14 years old; maximum 30 people on a first come basis. Please notify trip leader if you have a 4WD available for trip carpooling. **Cost:** free. **Bring:** minimum 2 litres water, lunch, and snacks, wet weather and warm gear, sun hats, sunblock, boots or sturdy shoes, gaiters and/or leggings an advantage for loose scoria, 4WD if you have one.

---

**Leader:** Paul Cashmore, ph: 07 3484421 (hm), 07 3497432 (wk), 0276 507 264 (cell); email: [pcashmore@doc.govt.nz](mailto:pcashmore@doc.govt.nz)

---

### Wellington Botanical Society

---

**Field trip:** Saturday 14 February to Centennial Park, Miramar.  
**Meet:** 9.15 a.m. at Miramar bus terminus, Darlington Road.

**Co-Leaders:** Chris Horne, ph: 04 475 7025 and Barbara Mitcalfe, ph: 04 475 7149.

---

**Meeting:** Monday 16 February at 7.30 p.m. for two talks: 1. Investigating red algae parasites by Maren Preuss, and 2. Regional threat classification by Jeremy Rolfe.

---

**Venue:** VUW Lecture Theatre M101, Murphy Building ground floor, west side of Kelburn Parade.

---

## 'Up the Garden Path' conference, Te Papa, Wellington, 2 and 3 March

---

**Conference:** Amenity horticulture and premier gardens sector. This conference sets out to explore the path to the future for the NZ horticultural industry. It takes advantage of a fortunate coincidence of existing conferences including the Botanic Gardens of Australia and New Zealand (BGANZ), New Zealand Recreation Association and the Royal New Zealand Institute of Horticulture. The planned events have been brought together under the conference banner 'Up the Garden Path'.

---

**Information and registration:** [Up the Garden Path Event Website](#) or contact: [jude@nzrecreation.org.nz](mailto:jude@nzrecreation.org.nz).

---

### Nelson Botanical Society

---

**Field trip:** Sunday February 15 to Red Hills. **Meet:** at 8.00 a.m. at the Church steps.

**Contact:** In case of cancellation and for our SAR protocol, please **register** by Friday 13 February with David Grinsted, ph: 03 542 4384.

---

### Canterbury Botanical Society

---

**Meeting:** Monday 2 February at 7:30 p.m. for talk by Kristina MacDonald, summer scholar, University of Canterbury titled 'Pollination of the native potato orchid *Gastrodia* sp. in New Zealand.

**Venue:** Upper Riccarton Library community meeting room, 71 Main South Rd. **Note new meeting night for 2015: Mondays!**

---

**Field trip:** Saturday 14 February to the rare and ephemeral wetland plants around Lake Forsyth/Wairewa, Banks Peninsula. **Meet:** at the Halswell Bowling Club at 9.00 a.m. for carpooling (fule costs shared) or the Lake Forsyth Boat Ramp at 9.40 a.m. **Suitability:** easy, flat terrain. **Bring:** food and drink, clothes for hot or cold weather, sunhat, hand lens, water for washing hands (lake water may contain toxic bacteria); boots if you want to venture into wetter areas.

---

**Trip Leaders:** Melissa Hutchison and Carol Jensen. **Contact:** Melissa, ph: 03 960 7051, email: [melissa@tenax.co.nz](mailto:melissa@tenax.co.nz).

---

### Otago Botanical Society

---

**Meeting:** Wednesday 11 February at 5.20 pm for a talk by Tammo Reichgelt Geology Department. Otago University, titled 'Vegetation response to past climate change in New Zealand'.

**Venue:** Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel.

---

**Field trip:** Saturday 14 February to Sunday 15 February to West Dome, Northern Southland.

**Access:** Use main entrance of Benham Building; go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt as we have to hold the door open.

---

**Contact:** David Lyttle, 03 454 5470, email: [djlyttle@ihug.co.nz](mailto:djlyttle@ihug.co.nz) for travel, etc., details.

---

**Meeting:** Wednesday 11 March at 5.20 p.m. for a talk by Robin Thomas, Coastal Otago representative for QEII titled 'QEII Covenants in Otago'. **Venue:** Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel.

---

**Access:** Use main entrance of Benham Building; go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt as we have to hold the door open.

---

**Field trip:** Saturday 28 March to Bungtown Conservation Area and Lake Mahinerangi. **Meet:** Botany department car park at 9.00 a.m.

---

**Leader:** John Barkla, ph: 03 476 3686, email: [jbarkla@doc.govt.nz](mailto:jbarkla@doc.govt.nz).

---