



TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 220

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Deadline for next issue:
Friday 19 August 2022

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

Postal address:

PO Box 147
Mangonui 0442
NEW ZEALAND

Gales bring dwarf mistletoes to ground

John Barkla (mjbarkla@xtra.co.nz)

On the afternoon of 18 July 2022 I walked a circuit through kānuka-dominated forest that surrounds the Ross Creek Reservoir in Dunedin. It was especially windy and, according to MetService, Dunedin recorded its strongest wind gusts this year at 107 km/h. Fresh branchlets from the kānuka (*Kunzea robusta*) canopy littered the ground and on close inspection, many of these were host to the nationally critical dwarf mistletoe *Korthalsella salicornioides*. As well, there were many dwarf mistletoes, or parts of mistletoes, on the ground which were detached from their host.

I've previously discussed this phenomenon in *Trilepidea* (Barkla 2020). What was remarkable about this most recent event was the quantity of mistletoe observed on the ground. Over the 1.73 km of track walked, I collected and counted 61 fallen kānuka branchlets that were hosting dwarf mistletoes, and a further 21 dwarf mistletoes detached from their hosts.

Samples of the fallen kānuka branchlets hosting dwarf mistletoes (Fig. 1) and of detached dwarf mistletoes (Fig. 2) were photographed on sheets of A3 paper.



Figure 1 (left). Sample of kānuka branchlets hosting dwarf mistletoes, collected 18 July 2022.

Figure 2 (right). Sample of dwarf mistletoes detached from host, collected 18 July 2022.

Photos: John Barkla.

The gale force winds continued throughout the day but had ceased by the morning of the 19 July 2022. During the afternoon of the 19th I repeated the walk of the previous

day, recording the dwarf mistletoes that had fallen since my visit the day before. This time I counted 23 fallen kānuka branchlets hosting dwarf mistletoe and a further 35 dwarf mistletoe detached from their host.

In total, as a result of this one-day gale-force wind event, 140 branchlets of kānuka that were hosting dwarf mistletoe, or detached dwarf mistletoe plants or parts of plants, were recorded from the track walked. While not a precise count (some kānuka branchlets hosted several mistletoes and some detached mistletoes represented only parts of plants), it does suggest a significant dwarf mistletoe population is present at the site.

Reference

Barkla, J 2020. Observations of *Korthalsella salicornioides* on kānuka windfall at Ross Creek, Dunedin. *Trilepidea* 200. Newsletter of the New Zealand Plant Conservation Network.

NZPCN Plant Conservation Awards 2022

Sarah Beadel (sarah.beadel@wildland.co.nz)

We are calling for nominations for the prestigious New Zealand Plant Conservation Network Awards 2022. The purpose of these awards is to acknowledge outstanding contributions to native plant conservation in Aotearoa/New Zealand.

Award categories are:

- Individual
- School
- Council
- Community
- Plant Nursery
- Young Plant Conservationist of the Year (under 18 years at 30 June 2022)

The nomination form is available from the Network website here: <https://www.nzpcn.org.nz/publications/documents/2022-nzpcn-award-nomination-form/>

We look forward to receiving your nominations; and encourage you to make multiple nominations under different categories.

Anyone is eligible to make nominations, not just Network members.

Nominations close on Friday 14 October 2022. Please email your nominations to sarah.beadel@wildlands.co.nz.

These prestigious awards will be presented at an event as part of the 2022 NZPCN conference in Queenstown on Tuesday 6 December 2022.

Winners will be informed in advance and each will get a pair of complimentary tickets to the awards event.

Four new species of woollyhead (*Craspedia*) described from the eastern South Island

Melissa Hutchison (melissa@tenax.co.nz)

A new paper provides descriptions and formal names for four species of woollyhead or *Craspedia* (Asteraceae) found in dryland habitats of the eastern South Island (Breitwieser & Ford 2022). Three of the species are endemic to Canterbury and one is confined to central Otago. All four species are threatened with extinction, with habitat loss/modification and introduced browsing mammals being the major threats to their survival. The four newly named species are:

- *Craspedia argentea*, Pisa Flats woollyhead (Threatened – Nationally Critical)

- *Craspedia diversicolor*, Wakanui woollyhead (Threatened – Nationally Critical)
- *Craspedia rugosa*, Lake Heron woollyhead (Threatened – Nationally Critical)
- *Craspedia thinicola*, Kaitorete Spit woollyhead (Threatened – Nationally Endangered)

Craspedia argentea (Figure 1) is endemic to Mahaka Katia Scientific Reserve (Pisa Flats) near Cromwell in central Otago. It grows on sparsely vegetated gravel outwash terraces, along with a variety of other Threatened and At Risk plant species, including *Raoulia monroi* (classified as Threatened – Nationally Vulnerable by de Lange *et al.* 2018), *Raoulia australis* (At Risk – Declining), and *Myosotis uniflora* (At Risk – Naturally Uncommon) (Figure 2).



Figure 1: *Craspedia argentea*, Pisa Flats woollyhead. Photo: John Barkla.



Figure 2: *Craspedia argentea* habitat at Mahaka Katia Scientific Reserve (Pisa Flats) in central Otago. Photo: Melissa Hutchison.

Craspedia diversicolor (Figure 3) is currently found only at Wakanui Beach in mid Canterbury (on privately owned land), but it appears to have been more widely distributed along the coast and at inland sites in the past (Breitwieser & Ford 2022). Efforts are now underway to propagate the species and establish additional populations at other site/s (Figure 4).



Figure 3: *Craspedia diversicolor*, Wakanui woollyhead. Photo: Val Clemens.



Figure 4: Propagated plants of *Craspedia diversicolor*. Photo: Val Clemens.

Craspedia rugosa (Figure 5) is currently known only from the Cameron Fan (private land), which is next to Lake Heron in the Ō Tū Wharekai/Ashburton Lakes area. However, it may have been more widely distributed in the past (as evidenced by specimens collected near Oxford) (Breitwieser & Ford 2022). It occupies dry, stable gravelfield and short grassland, and is associated with *Festuca novae-zelandiae*, *Racomitrium* sp., and *Raoulia* spp. (Figure 6). The species has recently been propagated by the Department of Conservation, and plants have been established in fenced enclosures on public conservation land at Lake Heron (Zammit-Ross 2017, LEARNZ 2019).



Figure 5: *Craspedia rugosa*, Lake Heron woollyhead. Photo: Melissa Hutchison.



Figure 6: *Craspedia rugosa* habitat near Lake Heron. Photo: Melissa Hutchison.

Craspedia thinicola (Figure 7) is endemic to Kaitorete Spit, where it grows on shingle and sand dunes, often in association with pingao/pikao (*Ficinia spiralis*) and *Raoulia australis* (Figure 8) (Breitwieser & Ford 2022).



Figure 7: *Craspedia thinicola*, Kaitorete Spit woollyhead. Photo: Alice Shanks.



Figure 8: *Craspedia thinicola* grows on sand dunes and shingle on Kaitorete Spit, often in association with pingao/pikao (*Ficinia spiralis*). Photo: Melissa Hutchison.

References

- Breitwieser I. and Ford K.A. 2022: Four new species of *Craspedia* (Compositae/ Asteraceae, Gnaphalieae) from the South Island of New Zealand, all characterised by dark red-purple anthers. *New Zealand Journal of Botany* 60 (online). <https://doi.org/10.1080/0028825X.2022.2095919>
- de Lange P.J., Rolfe J.R., Barkla J.W., Courtney S.P., Champion P.D., Perrie L.R., Beadel S.M., Ford K.A., Breitwieser I., Schönberger I., Hindmarsh-Walls R., Heenan P.B. and Ladley K. 2018: Conservation status of New Zealand indigenous vascular plants, 2017. *New Zealand Threat Classification Series* 22. Department of Conservation, Wellington. 82 pp.
- LEARNZ 2019: “*Craspedia heron* aka woolly head” (video). <https://vimeo.com/328368396>. Date accessed: 21 July 2022.
- Zammit-Ross J. 2017: Ō Tū Wharekai Newsletter. Autumn 2017. Department of Conservation, Geraldine. 2 pp. <https://braidedrivers.org/wp-content/uploads/O-Tu-Wharekai-Newsletter-Autumn-2017.pdf>. Date accessed: 21 July 2022.

Identification of small-leaved *Hydrocotyle* species in New Zealand

Chris Ecroyd (candjecroyd@gmail.com)

This guide is designed to assist with the identification of the small leaved species of *Hydrocotyle* which are often confused. It is a group which is in need of revision, with a number of unnamed species and there is also some hybridisation between at least two species, *H. dissecta* and *H. elongata*. The genus is now placed in the family Araliaceae and not in the closely related Apiaceae (carrot family). They are most likely to be confused with some members of the genus *Azorella*, in the family Apiaceae.

1. Species with deeply divided leaves i.e. 3-foliolate



Hydrocotyle hydrophila

Grows on the margins of lakes, streams and swamps. Tiny plants with leaflets entire or sometimes obscurely lobed.



Hydrocotyle sulcata

Very similar to *H. hydrophila* and grows in similar habitats. A larger plant with larger, more deeply lobed leaflets.



Hydrocotyle tripartita

An introduced Australian species often found in lawns or disturbed habitats. Sharply lobed leaflets.

2. Species with more or less glabrous leaves



Hydrocotyle heteromeria

Leaves thin, yellow green. A common species, widespread in a range of habitats, including lawns.



Hydrocotyle pterocarpa

A wetland species, often growing with sphagnum. Leaves glabrous, glossy and with distinctly rounded lobes. Fruits distinctively broadly winged.



Hydrocotyle novae-zeelandiae* var. *montana

Leaves glabrous or slightly hairy, thick and glossy green. A distinct species with a variety of forms, some of which may deserve recognition as separate species. Often found near lakes and streams and sometimes in coastal turfs but more common in montane areas.

3. Species with densely to finely hairy leaves



Hydrocotyle bowlesioides

A species introduced from Central America and now found in the northern parts of the North Island and recently found in the Marlborough Sounds. Always very hairy with whitish hairs. Some leaves angular in outline, others may be more rounded.



Hydrocotyle dissecta

A forest species with leaves dull green to brown and deeply dissected.



Hydrocotyle elongata

A shrubland and forest margin species. Leaves are dull green with irregularly serrated margins and usually divided about halfway. Easily distinguished when in flower or fruit by the long pedicels which are much longer than in other species.



Hydrocotyle microphylla

Occurs in a range of open habitats including lawns. Has dark, glossy green leaves, which may be sparsely hairy or glabrous. There are usually longer hairs at the top of the petiole and there may be obvious hairs on the upper leaf surface.



Hydrocotyle moschata* var. *moschata

A very common species. Leaves dull green, sharply serrated and very hairy, but variable in size and colour, sometimes with reddish margins.



Hydrocotyle moschata* var. *parvifolia

Leaves are generally smaller than *H. moschata* var. *moschata*. Possibly warrants species status.

3 cont. Species with densely to finely hairy leaves



***Hydrocotyle novae-zeelandiae*
var. *novae-zeelandiae***

A wetland species with leaves which are dull green, usually rounded in outline and finely hairy. Very different from *H. novae-zeelandiae* var. *montana*.



Hydrocotyle robusta

Similar to *H. novae-zeelandiae* but the leaves are more lobed. There is some confusion over the identification of this species which is not helped by considerable variation. There are at least three tag-named forms which may be unnamed species.

There is a number of *Hydrocotyle* specimens which we cannot place under any of these species for example:



Hydrocotyle 1

Has glossy green leaves with a very wide sinus.



Hydrocotyle 2

Has very small, thick, angular leaves.

(Note that photos are not all at the same scale)

Acknowledgements

Thanks to Shannel Courtney and Mark Smale for helpful comments and improvements to the text. The photo of *H. pterocarpa* was taken by Dave Holland and *H. hydrophila* by Pat Enright.

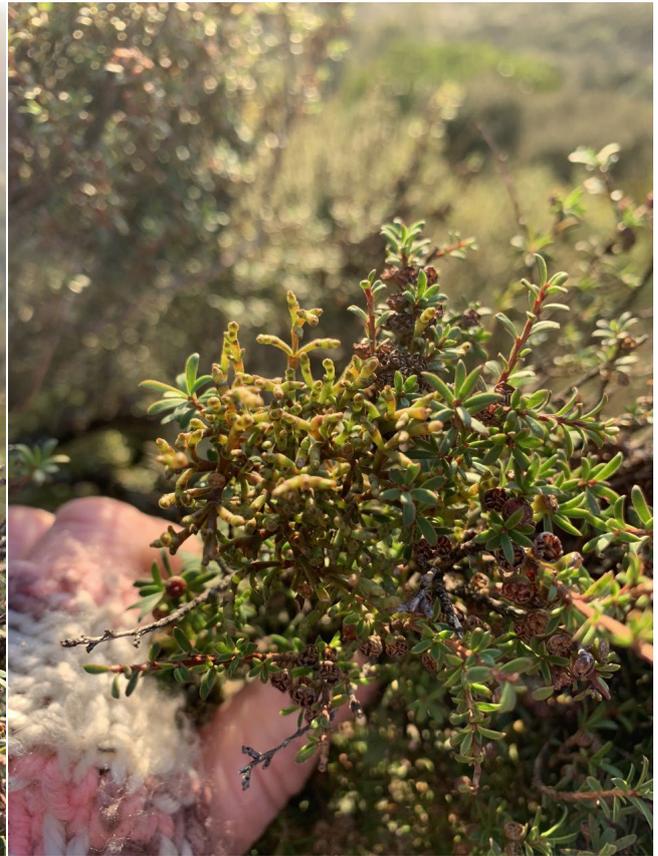
NZPCN Strategy Review

John Barkla, NZPCN President (mjbarkla@xtra.co.nz)

The current [NZPCN Strategy](#) has been guiding the Network over the last five years. It's time for the Council to check that the strategy is still fit-for-purpose, and we will soon begin a review to that end. We'd like to hear your views on the direction of NZPCN and on our goals and actions. Please send any feedback to info@nzpcn.org.nz by 31 August 2022.

***Korthalsella salicornioides* images**

These four images of *Korthalsella salicornioides* were submitted by Rachel Howells and were all taken on her Banks Peninsula property.



Request for seeds of montane plant species

Paul Bell-Butler (paul.bellbutler@vuw.ac.nz)

I'm an MSc student at Victoria University in Wellington. Next year is my thesis year and my project will involve monitoring the germination of a variety of vascular plant species in the presence of non-vascular ground covers, with a view to better understanding these interactions in the montane-subalpine grasslands.

I will hopefully be able to make seed collections under a permit over the summer, but I would like to do some trials now and do not have access to any seeds. I'm not looking for anything rare or special, just common montane species.

Some suggestions are: *Chionochloa* spp., *Coprosma propinqua* var. *propinqua*, *C. atropurpurea*, *C. perpusilla*, *C. petriei*, *Acaena* spp., *Luzula* spp., *Ranunculus* spp. (*R. foliosus*, *R. royi*, *R. maculatus*, *R. cheesmanii*), *Myosotis* spp. (*Myosotis pygmaea*), *Epilobium* spp. and *Celmisia* spp.

You can contact me at the email address above and any assistance you are able to provide will be very much appreciated.

Thank you to our conference sponsors!

The NZPCN would like to thank our sponsors for showing their commitment to plant conservation networking by supporting our conference. For more information regarding our conference sponsors please follow this link <https://www.nzpcn.org.nz/nzpcn/events/conference-2022/2022-conference-sponsors/>.

If you or your organisation is in a position to show your support, please contact us now for a sponsorship package at fergusa@landcareresearch.co.nz.



Wildlands



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UPCOMING EVENTS

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

If you are intending to participate in one of the advertised botanical society meetings or field trips please check with the appropriate society beforehand to confirm that the published details stand.

Wilding Pine Network NZ

Wilding Pine Conference: Collective action for long term gain.
Location: Blenheim. **Date:** 13–15 September 2022. Wilding conifers are New Zealand's biggest weed problem. Many around the country are working to control, contain and eradicate them, to protect some of Aotearoa's most iconic and rare landscapes, and productive land, from being smothered by a blanket of self-seeded wildings. At this conference, hosted by the Wilding Pine Network (formerly the NZ Wilding Conifer Group) will be speakers from community groups doing the mahi around the country, the forestry industry, scientists, and the National Wilding Conifer Control Programme (led by Biosecurity New Zealand, part of the Ministry for Primary Industries). The Minister for Biosecurity, Hon Damien O'Connor, and Minister of Forestry, Hon Stuart Nash, and the Deputy Director General Biosecurity New Zealand, Stu Anderson, will also be speaking.

Registrations: now open at [Wilding Pines Conference - Wilding Pine Network NZ](#) At the bottom of that page are links to the most recent programme and registrations. There will be a very warm welcome to all who attend.

Waikato Botanical Society

Meeting: Monday 15 August at 6.00pm. **Speaker:** Wayne Bennett from Forest Flora Nursery. **Venue:** The Link (corner Te Aroha Street and River Road).

Contact: Kerry Jones
ph. 027 747 0733.

Field Trip: Saturday 21 August to Robbie Bennett's QEII Covenant.

Leader: Catherine Beard,
email cbeard@doc.govt.nz,
ph. 027 536 6928.

Rotorua Botanical Society

Field Trip: Saturday 6 August to Highland Station remnants, south of Rotorua. **Meet:** Rotorua carpark at 8.30am or at the intersection of SH5 and Highlands Road at 8.45am. **Grade:** Moderate.

Leader: Martin Pearce,
email mpearce21@xtra.co.nz,
ph. 07 349 1929.

Wellington Botanical Society

Field Trip: Saturday 6 August to Paraparaumu Scenic Reserve. **Meet:** At carpark entrance, 115 Maui Pomare Road (exit old SH1 just north of Paraparaumu overbridge onto Nikau Valley Road) at 9.30am.

Leader: Owen Spearpoint,
email owen.spearpoint@gw.govt.nz, ph. 027 285 8083.

Meeting: Monday 15 August at 7.30pm. AGM and Tony Druce Memorial Lecture: Deer damaging Druce legacy in Hawke's Bay.

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

Nelson Botanical Society

Field Trip/Meeting: Please refer to the website: <https://www.nelsonbotanicalsociety.org/trips-meetings>, for details.

Canterbury Botanical Society

Meeting: Monday 1 August at 7.30pm. **Speaker:** Dr Colin Meurk.
Topic: How plants can thrive on stress and disturbance, with particular reference to novel habitats in cities.

Venue: St Albans Community Centre, 1049 Colombo Street, Christchurch.

Field Trip: Saturday 6 August to Te Oka (Kinloch) Reserve, Okuti Valley, Banks Peninsula. **Meet:** To be advised. **Grade:** Moderate-Hard.

Contact: Alice Shanks, email fieldtrips@canterburybotanicalsociety.org.nz or phone 027 366 1246 to confirm participation.

Botanical Society of Otago

Meeting: Wednesday 10 August at 5.20pm. **Speaker:** Matt McGlone, Manaaki Whenua-Landcare Research. **Topic:** What's cooking with kānuka?.

Venue: Main seminar room, Manaaki Whenua Landcare Research, 764 Cumberland Street, Dunedin.

Field Trip: Saturday 13 August to Rutherford's Bush. **Meet:** Botany Department carpark (464 Great King Street North) at 9.00am or in Portobello on Highcliff Road by the Penguin Café at 9.20am.

Contact: Moira Parker, email moiraparker3@gmail.com, ph. 027 328 4443 or Alf Webb, ph. 020 478 0809.
