



# TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 239

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Deadline for next issue:  
Friday 17 May 2024

## 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 [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz)

Postal address:  
73 Stratford Drive  
Cable Bay 0420  
NEW ZEALAND

## PLANT OF THE MONTH, p. 2



*Drosera pygmaea*. Photo:  
Bill Campbell.

## NZPCN 2024 conference

*Taylor Davies-Colley, Bill Campbell, Marley Ford*



With the conference edging ever closer we are excited to announce more news about what is shaping up to be a brilliant conference.

We know many potential attendees have just completed their busy summer seasons or have been attending the popular and very successful wetlands hui recently. Because of this, the conference committee has decided to **extend early bird registrations until 31 May** to take some of the pressure off. Some field trips are starting to fill up, particularly the Pipiwai area gumland one, so it would be advisable to

register sooner rather than later to avoid missing out if you have a particular field trip preference. We also still have a few free registrations available for students who are presenting at the conference. Feel free to get in touch for more details.

Wildlands Consultants, a long-time supporter of NZPCN, has come on board as a premier sponsor for the conference. Sponsorship allows us to keep the cost of the event down, making these conferences as accessible as possible, and allows us to put together a quality programme. If you or your business wants to support the conference please get in touch to discuss.



We are also excited to confirm two of our keynote speakers. Geoff Davidson will be speaking about the Native Forest Restoration Trust's legacy of protecting forests across the motu for more than 40 years. Staunch advocate for conservation and Northland, Dean Baigent-Mercer, will speak about work being done to protect Northland's special wetlands and the flora within them.

The committee is particularly excited to be putting the final details together for our 21st celebration evening. We are really happy that we were able to include this dinner as part of the registration fee for attendees. It will be a great opportunity to catch up with other plant conservationists around the country, celebrate the wins we have made in the plant conservation space, and make connections that could lead to future gains.

## PLANT OF THE MONTH – *DROSERA PYGMAEA*



Bill Campbell ([billcampbell@xtra.co.nz](mailto:billcampbell@xtra.co.nz))

The plant of the month for April is *Drosera pygmaea*, a tiny denizen of gumland and pakihi shrublands and adjoining wetlands. The diminutive bright red plants, which cause it to stand out from its surroundings, start appearing in August/September and disappear over the winter months. Due to land clearance and conversion, along with wetland drainage, this species is no longer known from a number of locations where it was formerly recorded. Its stronghold now appears to be the far north of New Zealand, where it is found from Te Paki south to about Dargaville. Other North Island records are from west of Auckland and near Waiouru, with the only South Island records being from near Bluff Hill. The species is still common in Australia.

In New Zealand, *Drosera pygmaea* is a coastal to subalpine species and requires open ground without competition to survive. In Northland it soon reappears after the periodic fires that occur in the Kaimaumu and Lake Ohia wetlands and it is possible that these fires aid the long-term survival of this species.



*Drosera pygmaea* at Lake Ohia: (left) plants, 9 October 2019; (right) flowering plant, 28 November 2012.

As mentioned above, plants begin appearing at the beginning of spring and are generally quite conspicuous on account of their bright red colouration. Flowering occurs in November/December, with the plants persisting through to the beginning of winter before disappearing. The only other species growing in similar habitat in New Zealand with which *Drosera pygmaea* could be confused is *D. spatulata*, a species of considerably larger growth habit and lacking the erect tuft of stipules in the centre of the plant.

This species has a current conservation status of At Risk – Relict. Conversion of gumland habitat and wetlands to farmland remains an ongoing threat to this species. Known populations on private property on the east coast near Mangonui have been destroyed in recent years by land clearance and new housing development. Fortunately, the largest known remaining populations in Northland are to be found within DOC/iwi-controlled reserves.

The genus name *Drosera* means 'dewy' from which the name sundew is derived. The species epithet *pygmaea* means 'tiny' referring to the small size of the plant, which, not unsurprisingly, has the common name of pygmy sundew.

You can view the NZPCN website factsheet for *Drosera pygmaea* at <https://www.nzpcn.org.nz/flora/species/drosera-pygmaea/>.



As with previous conferences we will be holding an auction to raise funds for the David Given Threatened Plant Scholarship and the John Sawyer Threatened Plant Endowment Fund. If you or your business would like to support the auction with some donated items that would be much appreciated.

Register for the conference [here](#), and keep an eye out for updates here and on social media. Please get in touch with conference organising committee lead Taylor Davies-Colley at [nzpcnconference@gmail.com](mailto:nzpcnconference@gmail.com) with any enquiries or offers of support. We look forward to seeing you in Whangārei in October.

## New tree species find for northern South Island—*Coprosma pedicellata*

 Rowan Hindmarsh-Walls ([rowan.hindwalls@gmail.com](mailto:rowan.hindwalls@gmail.com))

In March 2024, I attended a Nelson Botanical Society organised field trip to Brown River Reserve in the Rai River catchment, west of the Marlborough Sounds. It is a small but fairly well-preserved piece of lowland podocarp and beech forest, surrounded by exotic forestry and farmland on all sides. Being next to a highway the reserve has been extensively botanised in the past, so the last thing on my mind was looking for anything profoundly new.

Armed with the late Tony Druce's species list, as well as a previous Nelson Botanical Society list, we spent the morning and early afternoon ambling through the bush looking and learning, admiring the fruiting *Alseuosmia pusilla* and trying not to stand on wasp nests. The 'fast' party had found a small oxbow wetland within the reserve and they were keen for us 'amblers' to come and help them identify some of the *Carex* species they had found within it. We had already noted that there was a profusion of small-leaved shrub species within the forest, and a refresher session on these entities had developed throughout the day. As we broke out into the now dry oxbow, I was taken by its similarity to a piece of kahikatea forest I had worked in in 2014, on the edge of Waituna wetland in Southland. After looking at the *Coprosma tenuicaulis* and various *Carex* species (*C. geminata*, *C. maorica*, *C. secta* and *C. virgata*) within the wetland, I commented to the group about how this was the perfect habitat for the fertile wetland specialist species *Coprosma pedicellata*, which I had become familiar with while working down south in Waituna wetland and eastern Fiordland. Very soon after that we came across a 5-metre-high *Coprosma* tree, with foliage that from a distance looked like *Coprosma dumosa*, but didn't have the obvious planar branching pattern of that species and was far too large. My interest was



*Coprosma pedicellata*, Brown River Reserve, 27 March 2024: (left) close up of foliage; (right) foliage .





*Coprosma pedicellata*, Brown River Reserve, 27 March 2024: (left) pedicellate fruit; (right) large tree .

immediately piqued. I started searching around the area, looking at all the saplings, and my eyes locked onto one sapling tucked in amongst the other coprosmas. “Holy heka!” I thought to myself “That looks very much like *Coprosma pedicellata*, but it shouldn’t be here”. My heart started to race in what can only be described as plant induced wild excitement. Then my logical brain kicked in. “Calm down Rowan! You need to be 100% sure before you get too excited”. After calling the group over and some in depth consultation with the Manaaki Whenua coprosma key on our phones, along with finding several more similar looking plants, I was becoming increasingly confident with what we were looking at—the first known population of *Coprosma pedicellata* in the northern South Island ecological region. The next nearest known population is in North Canterbury, south of the Amuri Range.

On closer inspection of Tony Druce’s 1990 species list, he had listed a “*Coprosma* sp. (unnamed, included in *C. parviflora*)”. I initially thought that this must have been referring to the *Coprosma dumosa* in the reserve as this was not on Tony’s list under its old name of *C. taylorii*, but possibly he was referring to *C. pedicellata*. Either way he had missed one of the species, and the *C. dumosa* was far more common, so more likely he missed *C. pedicellata*, or hadn’t differentiated between the two.

After collecting a sample for the herbarium and locating a small number of large individuals as well as saplings and seedlings, we GPS marked the site. We then searched around in vain for fruit on the adult trees but did manage to collect a few small purple fruit off the ground after shaking some of the taller trees. We emerged back onto the highway in the late afternoon in high spirits, driven by the significance of the find, as well as the very pleasant day of forest immersion.

A few weeks later, on my way back from a trip to d’Urville Island, I spent an afternoon in the reserve to get a better understanding of the population and its habitat, which is outlined below.

To give some background information on the species, it was first named as a species in 1999 by Brian Molloy, Peter de Lange, and Bruce Clarkson, but was tag named *Coprosma* “violacea” by the late Tony Druce prior to this, after its discovery in the North Island. The species has a very scattered distribution from Northland to Southland but was initially thought to be absent from the upper South Island and upper North Island until this discovery, and a fairly recent discovery of the species in Northland.

The current scattered distribution is presumed in part to be an artefact of major fragmentation and decimation of the species habitat, which is primarily old flood channels and oxbow wetlands in forest and shrubland in lowland valley systems. Most of these habitats have been systematically cleared and drained for farming in the last 150 years.

The species is distinctive in that it grows into a small tree, has more of an erect growth habit than other similar species, has hair right around the leaf petioles, and has purple, blue or white fruit borne on distinctively long pedicels (stalks).

The species has a national conservation status of 'At Risk – Declining', as it is now quite uncommon across much of its range and occupies a nationally seriously threatened ecosystem type, that is majorly fragmented. At many current sites, the populations are declining due to stock or wild animal browse causing a recruitment failure, or habitat modification causing sites to dry out and no longer be suitable for the species. Wild pigs are also a threat in that they like to root up damp silty areas in forest and can easily prevent successful recruitment by destroying regenerating seedlings of the species. Weed competition is also a major threat with species such as old man's beard (*Clematis vitalba*), wandering Willy (*Tradescantia fluminensis*), blackberry (*Rubus* sp.) and willow (*Salix* sp.) being prominent problematic species in its preferred habitat.

The species name epithet *pedicellata* refers to the species pedicellate (distinctly stalked) fruit.

## Notes on the population at Brown River Scenic Reserve

### Population size and structure

Nine sub-populations of the species were found at the site, each associated with a different piece of flood channel or wetland. There are likely to be more sub-populations present, as the entire area of suitable habitat was not systematically searched.

In total, 106 adult plants, 230 saplings and many 1000s of seedlings were counted across the entire site. The largest sub-population (oxbow wetland) consisted of 60 adults, 139 saplings and 1000s of seedlings.

All plants were healthy, with no obvious browse or disease. Most adult plants had at least some fruit on them, with a few plants fruiting plentifully.

There were a number of very large old individuals, the largest being approximately 7 metres tall with a trunk diameter of approximately 20 cm near the base.

### Site, habitat and associated species

The zone of suitable habitat is a roughly rectangular area of valley floor measuring approximately 700 metres in length by 300 metres in width. Many of the populations at the site are growing along the edge of stream flood channels and an oxbow wetland with the fertile alluvially derived silt and gravel substrate. At least two of the sub-populations are in wet depressions in forest well above the flood zone of the river. All of the sites are heavily forested, the main forest species being kahikatea (*Dacrycarpus dacrydioides*)-dominated alluvial forest with other tree species including: matai (*Prumnopitys taxifolia*), tōtara (*Podocarpus totara*), putaputawētā (*Carpodetus serratus*), rōhutu (*Lophomyrtus obcordata* and *Neomyrtus pedunculata*), ramarama (*Lophomyrtus bullata*), pōkākā (*Elaeocarpus hookerianus*), black beech (*Fuscospora solandri*), broadleaf (*Griselinia littoralis*), kōhūhū (*Pittosporum tenuifolium*), lemonwood (*Pittosporum eugenioides*), patē (*Schefflera digitata*), māhoe (*Melicytus ramiflorus*), wineberry (*Aristotelia serrata*), kaikōmako (*Pennantia corymbosa*), tī kōuka (*Cordyline australis*), tūrepo (*Streblus heterophyllus*), and *Melicytus micranthus*. Many other *Coprosma* species were also present including *C. areolata*, *C. dumosa*, *C. propinqua*, *C. rigida*, *C. rotundifolia*, *C. tenuicaulis*, and *C. × cunninghamii*. Other wetland species present included: *Carex geminata*, *Carex imbecilla*, *Carex maorica*, *Carex secta*, *Carex uncinata*, *Carex virgata*, *Eleocharis acuta*, *Muehlenbeckia australis*, *Rubus schmidelioides*, *Microlaena avenacia*, *Asplenium bulbiferum*, *Parablechnum minus*, and *Parablechnum novae-zelandiae*. The forest at the sites above the flood zone had less diversity of species and a higher proportion of tōtara and pōkākā than the other sites.





*Coprosma pedicellata* habitat, Brown River Reserve, 27 March 2024.

### **Threats**

There were a number of weed species present within the forest at the site that would likely have a significant negative impact on the *Coprosma pedicellata* population if allowed to expand. These included: cherry laurel (*Prunus laurocerasus*), old man's beard (*Clematis vitalba*), wandering Willy (*Tradescantia fluminensis*), and blackberry (*Rubus* sp.).



Wild pig rooting was also noted at one of the sites, and pigs could have an impact on recruitment of the species if not managed appropriately.

Myrtle rust was present in abundance in the area, on both ramarama and rōhutu. As these species make up a notable portion of the sub-canopy at some sites, if myrtle rust kills many of the adult *Lophomyrtus* trees in the area, the forest structure could be altered to a point that impacts the *Coprosma*.


### Summary

- The population is regionally highly significant and possibly nationally significant
- The population is on protected land and is likely stable at present with a good mix of age classes of plants
- Weed plant competition is likely the most imminent threat, especially ground cover and tree weeds
- The forest at the site needs ongoing protection from weed and pest threats
- There is enough seed being produced within the population to allow for collection and propagation
- Other back-up populations could be planted at suitable sites in the surrounding area.

### References

- Druce A. P. 1990. Indigenous higher plants (Psilopsids, Lycopods, Ferns, Gymnosperms, Flowering plants) of Brown R. Scenic Reserve, Marlborough, 60–300m. Unpublished species list.
- Molloy B. P. J., de Lange P. J., Clarkson B. D. 1999. *Coprosma pedicellata* (Rubiaceae), a new species from New Zealand. *New Zealand Journal of Botany* 13: 383–397.
- Inaturalist NZ <https://inaturalist.nz/>
- Manaaki Whenua Coprosma Key <https://www.landcareresearch.co.nz/tools-and-resources/identification/key-to-coprosma-species-of-new-zealand/>

### Update on latest submission

 Jesse Bythell, NZPCN President ([jesse.bythell@gmail.com](mailto:jesse.bythell@gmail.com))

The Network's vision is that "the rich, diverse and unique native plant life of New Zealand is recognised, cherished and restored". In keeping with this, we take opportunities when the government invites public submissions on matters which are relevant to the current and future health of our native flora.

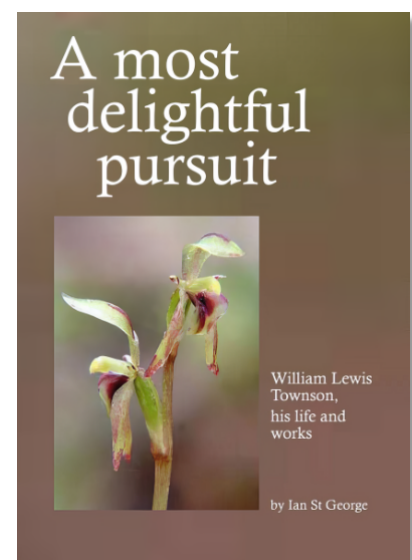
The committee thanks its newest member, Jane Gosden, for her work bringing together this recent submission on the Fast-track Approvals Bill on behalf of the NZPCN. The submission can be read on our website at: <https://www.nzpcn.org.nz/publications/documents/nzpcn-submission-on-fast-track-approvals-bill-2024/>.

**Book review—*A most delightful pursuit: William Lewis Townson, his life and works*. By Ian St George. 159 p, A4, ISBN 978-0-473-67134-1. \$38 including P&P.**

 Bill Campbell ([billcampbell@xtra.co.nz](mailto:billcampbell@xtra.co.nz))

Though not being an avid reader, I recently had the opportunity to read and review the above book on the life and works of William Townson. Townson, who was most active in the late 19th century and early 20th century, is not such a familiar name as some of his contemporaries but he was a significant contributor to ornithological and botanical exploration and understanding of the time. Such was his influence that eight plants and a bird were named after him, including the orchid genus *Townsonia*.

I found this publication extremely readable and quite engrossing. It provides a fascinating insight into the life of a man who moved



home and business several times, thus providing him with opportunities to explore different parts of New Zealand. Townson was more than just an ornithologist and a botanist, he was an all-round natural historian, with a sharp eye for the different and unusual around him.

Reading about his botanical explorations was like being transported back in time, when birds and plants that are now threatened or extinct were still often encountered and accessible. At times one could almost envisage being there, given the style of Townson's own writings. Unfortunately, like others before him, Townson with his trusty gun contributed to the demise of Huia. Such were the accepted practices of the day, which now would be rightly condemned. Thankfully, views around conservation have changed significantly for the better over the ensuing 100 plus years.

I was able to read this book from cover to cover in one sitting because it was never a tedious exercise. As one would expect, there are occasional typos and, due to its nature, there is occasional repetition in places. However, these minor niggles in no way detract from a well written and compiled book. The text is supported by many plates and illustrations which, in themselves, are quite fascinating. Ian St George is to be commended for the time and effort taken to access and assemble all the historical records required to create such a volume.

I have no qualms in recommending this book to anyone interested in knowing more about botanical exploration in New Zealand and the early botany of the areas Townson visited. It covers more than botany though and anyone with an interest in New Zealand's natural history should find this well-priced book a welcome addition to their library.

To purchase one or more copies email the author at [istge@yahoo.co.nz](mailto:istge@yahoo.co.nz) or order at <https://onadmiralroad.co.nz/>.

## UPCOMING EVENTS

If you have events or news that you would like publicised via this newsletter please email the Network ([info@nzpcn.org.nz](mailto:info@nzpcn.org.nz)), prior to the published copy deadline, with details of meetings, field trips or other events taking place during the following month or later. The deadline for copy for the following month's *Trilepidea* is at the top of the front page of each issue.

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

### Auckland Botanical Society

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**Meeting:** Wednesday 1 May at 7.30pm. **Topic:** Origin and diversification of *Libertia* (Iridaceae). **Speaker:** Sophie Newmarch, 2023 Lucy Cranwell Grant recipient.

**Venue:** Unitec, School of Natural Sciences, 139 Carrington Road, Mt. Albert (Gate 4, Building 115, Level 2, Room 2005).

**Field Trip:** Saturday 18 May to Karioitahi Beach, west of Waiuku. **Meet:** Karioitahi Beach carpark at 10.00am. **See website:** <https://sites.google.com/site/aucklandbotanicalsociety/> for further details.

**Leader:** Tricia Aspin, ph. 09 235 9891 or 027 414 9253.

### Waikato Botanical Society

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**Field Trip:** Saturday 4 May to Taupiri Scientific Reserve.

**Leader:** Kerry Jones, email [km8j1s@gmail.com](mailto:km8j1s@gmail.com), ph. 027 747 0733.

**Meeting:** Monday 20 May at 6.00pm. **Topic:** Tuatapere Scenic Reserve and Kepler Track wetland. **Speaker:** Kerry Jones.

**Venue:** The Link Centre, Corner of Te Aroha Street and River Road, Hamilton East.



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## Rotorua Botanical Society

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**Field Trip:** Saturday 4 May to Otamarakau dunes and wetlands.  
**Meet:** Rotorua carpark at 8.00am or Pikowai Campground at 9.00am.

**Leader:** Sarah Beadel, email [sarah.beadel@wildlands.co.nz](mailto:sarah.beadel@wildlands.co.nz), ph. 021 924 476.

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## Wellington Botanical Society

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**Field Trip:** Saturday 4 May to Te Ara Papararangi and Gilbert Bush Reserve, Newlands. **Meet:** Carpark at the southern end of Tamworth Street, Newlands at 9.30am.

**Co-Leaders:** Lara Shepherd, email [lara.shepherd@tepapa.govt.nz](mailto:lara.shepherd@tepapa.govt.nz), ph. 027 363 5854 and Leon Perrie, email [leon.perrie@tepapa.govt.nz](mailto:leon.perrie@tepapa.govt.nz), ph. 027 419 1378.

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**Meeting:** Monday 20 May at 7.30pm. **Topic:** Members' meeting to share.

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

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## Nelson Botanical Society

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

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## Canterbury Botanical Society

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**Field Trips/Meetings:** Please refer to the website: <https://canterburybotanicalsociety.org.nz/canterbury-botanical-meetings-field-trips> for current details.

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## Botanical Society of Otago

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**Meeting:** Wednesday 8 May at 5.20pm. **Topic:** Annual General Meeting and Photographic Competition. **Venue:** Zoology Benham Building, 346 Great King Road, Dunedin. Go to main entrance and proceed to Benham Seminar Room 215 on second floor.

**Contact:** Gretchen Brownstein, email [brownsteing@landcareresearch.co.nz](mailto:brownsteing@landcareresearch.co.nz), ph. 021 065 8497.

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**Field Trip:** Saturday/Sunday 18-19 May to Slope Point and environs, Southland.

**Leaders:** John Barkla and Gretchen Brownstein.

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