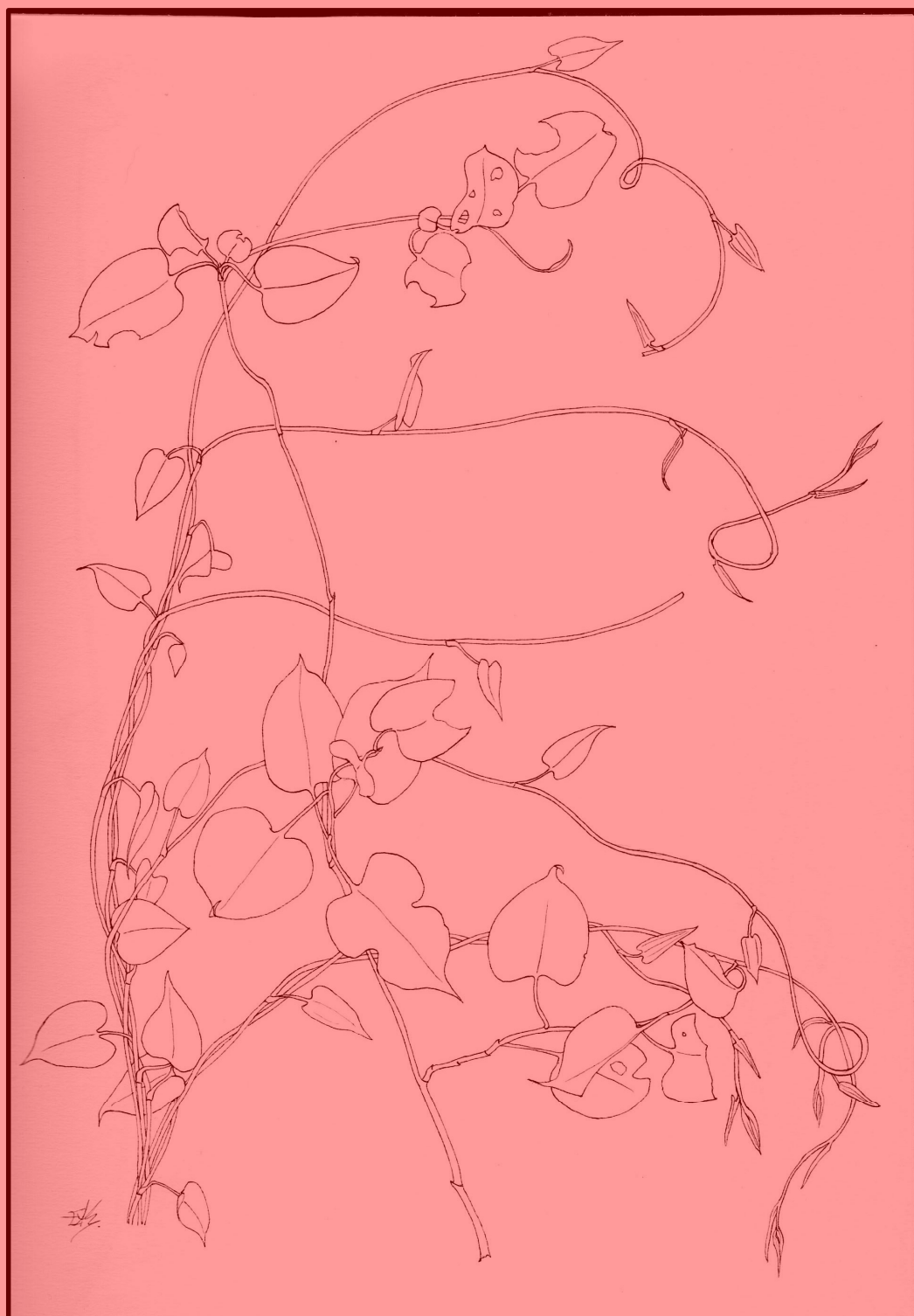


NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 154

December 2023



President:	Anthony Wright
Secretary/Treasurer:	Ewen Cameron
Committee:	Bruce Clarkson, Colin Webb, Carol West

Address:	c/- Canterbury Museum Rolleston Avenue CHRISTCHURCH 8013
Webmaster:	Murray Dawson
URL:	www.nzbotanicalsociety.org.nz

Subscriptions

The 2023 ordinary and institutional subscriptions are \$28 (reduced to \$25 if paid by the due date on the subscription invoice). The 2023 student subscription, available to full-time students, is \$15 (reduced to \$10 if paid by the due date on the subscription invoice).

Back issues of the *Newsletter* are available at \$7.00 each. Since 1986 the Newsletter has appeared quarterly in March, June, September and December.

New subscriptions are always welcome and these, together with back issue orders, should be sent to the Secretary/Treasurer (address above).

Subscriptions are due by 30 April each year for that calendar year. Existing subscribers are sent an invoice with the March *Newsletter* for the next years subscription which offers a reduction if this is paid by the due date. If you are in arrears with your subscription a reminder notice comes attached to each issue of the *Newsletter*.

Deadline for next issue

The deadline for the March 2024 issue is 25 February 2024.

Please post contributions to:
Lara Shepherd
Museum of New Zealand Te Papa Tongarewa
169 Tory St Wellington 6021

Send email contributions to lara.shepherd@tepapa.govt.nz Files are preferably in MS Word, as a Microsoft Word document. Graphics can be sent as TIF JPG, or BMP files; please do not embed images into documents. Alternatively, photos or line drawings can be posted and will be returned if required. Drawings and photos make an article more readable so please include them if possible.

Cover Illustration

Muehlenbeckia australis by Eleanor Burton.

NEW ZEALAND BOTANICAL SOCIETY
NEWSLETTER
NUMBER 154 December 2023

ISSN 0112-6865 (Print) 2230-3502 (Online)

CONTENTS

New Zealand Botanical Society News

Committee for 2024	2
--------------------------	---

Regional Botanical Society News

Auckland Botanical Society	2
Wellington Botanical Society	3
Nelson Botanical Society	6
Canterbury Botanical Society	8
Other Botanical Societies	10

Biography/Bibliography

Biogeographical Sketch – Joshua Salter (1946-)	11
--	----

Publications

Publications received	13
New book on <i>Celmisia</i>	14

NEWS

New Zealand Botanical Society News

■ Committee for 2024

Nominations for positions of President, Secretary/Treasurer and three committee members for the New Zealand Botanical Society closed on 20 November 2023.

The following nominations, equalling the number of positions available, were received and are declared elected: President Anthony Wright, Secretary/Treasurer Ewen Cameron, Committee members Bruce Clarkson and Carol West (one position on the committee remains vacant).

We are pleased to announce that Lara Shepherd has agreed to continue as editor for 2024.

Regional Botanical Society News

■ Auckland Botanical Society

September meeting

Susannah C. Graham, a South African now living in New Zealand, spoke on her studies on the impact of *Seriphium plumosa* (Asteraceae) densification on Mesic Highveld Grassland biodiversity in Telperion Nature Reserve. *Seriphium plumosum* at low densities is integral to the environment, but dense growth can disrupt biodiversity and habitat structure. Monitoring and management are vital for balanced ecosystems.

September field trip

This field trip was to native bush remnants on a lifestyle block at Gelling Road, Ararimu, South Auckland. The bush here is second-growth podocarp hardwood forest, with rimu, kahikatea, tanekaha and Halls' totara the main conifers, and rewarewa, tawa, white maire, titoki and pigeonwood the main broadleaves. The fern flora is considerable, especially so on the steep banks of the Whangawheau Stream (a headwater tributary of the Wairoa River). The landowner provided 4WD transport to get us to the bush, and he came back later with tea, coffee and scones.

October meeting

Tiago Mahalingham, who guides the restoration work on the volcanic cones of Auckland/Tamaki Makaurau for the Tupuna Maunga Authority (TMA), spoke of his work on conservation programs following the Biodiversity and Biosecurity strategy in TMA's integrated management plan. Vegetation restoration, pest plant control and pest animal control form the core of the mahi on the maunga, along with involving local iwi in the work so they feel that their ancient connections with the maunga are appreciated.

A show and tell at the end of the meeting, allowed us to botanise a pair of Geoff Davidson's sole-less tramping boots that had been left outside for 25 years. The leather uppers had accumulated a good crop of lichens, and inside the boots grew several small herbs and a stout plant of *Thelymitra longifolia*.

October camp, Banks Peninsula

Sixteen members and friends attended the first South Island Camp since the Westport Camp in 2018. We were based in the very comfortable YMCA Lodge at Wainui, on Akaroa Harbour, opposite Akaroa township. A few days were spent either on Hinewai, owned by a trust and administered by the redoubtable Hugh Wilson, or on property bought to complement Hinewai. It took some getting used to the huge areas left in gorse (brilliantly golden in that area), but Hugh has the long view, and already

can show where regenerating native plants have overtaken the gorse. Two days were spent on Kaitorete Spit, and in both hilly and flat country we were treated to a bounty of plants that are completely different from what we are used to. Being a spring visit, many plants were in full flower – there were swathes of yellow-flowered clematis, both *Clematis foetida* and *C. afoliata*, *Parsonsia capsularis* in various hues, the very common mistletoe, *Ileostylus micranthus*, occasionally showed small green flowers with yellow stamens. Even the bewildering *Muehlenbeckia ephroides*, looking for all the world like a bunch of dead stems, bore the very occasional flower and leaf (bums to sky and lens to eye).

October field trip

The morning walk to Omeru Reserve on SH16 was a surprise to many who didn't know of its existence, but the recently built facilities – tracks, boardwalks, toilets and picnic tables, made it a very easy reserve to botanise in, and it was also popular with the general public. The kowhai and carmine rata (growing down the sides of the tallest waterfall) had finished flowering, but flowers of *Clematis paniculata* and *Parsonsia heterophylla* were on display.

After lunch we drove northwards to Mataia, the wonderful property belonging to the Adsheads and administered with conservation at the heart of all farm operations, so much so that the original 30 kiwis that were released there have now increased to about 500. Gillian Adshead met us at the gate and kindly guided us through the afternoon. The first treat was some seldom seen plants in an area of gumland scrub. We saw two species of the tiny native daisy, *Lagenifera pumilio* and *L. stipitata*, two sundews, *Drosera auriculata* and *D. gunniana* (with golden hairs on the sepals), *Gaultheria antipoda*, *Helichrysum lanceolatum*, and many others too numerous to name. After a very long day, we drove home weary, but sated.

November meeting

Robert Vennell, who is making a name for himself with a series of interesting books on aspects of our natural heritage, spoke to us on his latest book, "The Forgotten Forest: In search of the lost plants and fungi of Aotearoa". Included among some of the unsung and remarkable creatures, a mobile slime mould astounded the audience. He also shared some of the botanical highlights from a recent trip to the Subantarctic Islands.

November field trip

The planned field trip to Oruarangi Creek, near the Airport, was cancelled because of the poor weather forecast.

Auckland Botanical Society PO Box 26391, Epsom, Auckland 1344

President: Bec Stanley

Secretary: Kirsty Myron

aucklandbotanicalsociety@gmail.com

■ **Wellington Botanical Society**

April Fieldtrip: Ecclesfield Reserve & Wi Tako Ngātata Reserve, Silverstream, Upper Hutt

Despite the gloomy forecast we were pleased to have eighteen keen Bot Soccers arrive at the entrance on Blue Mountains Rd, including some on their first field trip. After introductions the group proceeded towards Wi Tako Ngātata through the Ecclesfield Reserve entrance. Here the group soon split as those keen to complete the loop through Wi Tako Ngātata broke away, while most chose to stay in Ecclesfield Reserve due to the poor condition of Wi Tako Ngātata's tracks.

The ca. 6-km loop through Wi Tako Ngātata held plenty of interest for the two who walked it. It traverses several different vegetation types; the primary forest being hard beech – black beech, with areas of regenerating kānuka – kamahī scrub, as well as pockets of wetland vegetation in the gullies. It was very wet under-foot at times, and the track had almost closed in places. Highlights were the diversity of native ferns—patches of *Lindsaea linearis* were pleasing to see trackside under the scrub, and several rushes and sedges which Eleanor later keyed out.

Of the majority who stayed in Ecclesfield Reserve, nine expressed interest in learning basic plant identification and joined Owen as mentor. They progressed slowly as he explained the differences between species and the botanical features that show the difference. All were very willing learners and spent time trying their identification skills. So much so that after the first hour we had progressed barely

100 metres. There were a lot of invasive alien tree and shrub species along that first 100m of track, all known garden escapees.

We covered the next 100m more quickly as we started to encounter species that we had already identified. Also, the forest became more open and less diverse, typical of beech forest, and there were fewer species to discuss. We climbed to Eccesfield Reserve lookout for lunch, where there was not much of a view but a nice seat and clearing. After lunch we continued up the ridge and out of the mature forest, again practising plant identification along the way. At the boundary fence with Wi Tako Reserve the track started to deteriorate and we met the bulk of the group making their way down. About this time it also started to drizzle so after lunch we returned to the cars. The flora encountered was typical of mature black beech/hard beech forest. Of note was the abundant fruit on the *Leptocophylla juniperina*. There was also mistletoe (*Peraxilla tetrapetala*) present but we did not see it.

May Fieldtrip: Trelissick Park, Ngaio Gorge, Wellington

Despite the early morning weather looking unpromising, our group of 29, 9 of whom came by train, had 5 hours of dry weather for a walk from Crofton Downs Station down the Korimako and Kaiwharawhara Streams to see changes and plantings since the many previous records by Wellington botanists. The park has been tirelessly worked in for pest-control and planting over the last thirty years by the volunteer Trelissick Park Group (with WCC and GWRC support), who maintain a good website. Jonathan Anderson from this group, having detailed knowledge of the botanical activities, joined us for the day to point out features.

We saw sewer pipe reconstruction work but not the one well-hidden planted kauri seedling. At Wightwick's Field we saw the perimeter plantings, with Jonathan saying that the northern rātā / *Metrosideros robusta* had fruited last year. Just inside private property is the oldest planted nīkau / *Rhopalostylis sapida* in the catchment, now developing a trunk. Natural nīkau are rare in the park.

We saw the steamside scouring by recent storms and the amount of replacement planting that's been necessary. Many of the planted *Poa* spp. have not done well with wet feet. Some of the faster growing planted species e.g., wineberry, planted in previously blackberry-riddled areas, are now dying out allowing more light for the slower growing planted trees. On the stream banks before the bridge we saw a patch of alder / *Alnus glutinosa* over the stream—this weed may have spread from Cummings Park; a narrow-leaved lacebark / *Hoheria sexstylosa* is self-seeding from a large one over the creek; and damage by the released weevil, *Cleopus japonicus*, doing its work on butterfly bush / *Buddleja davidii* above us. A few heritage plantings, mostly miro / *Prumnopitys ferruginea*, were examined at morning tea.

Here and there some exotic ferns met their fate in the hands of BotSoccers. Of concern is the adventive maidenhair fern / *Adiantum raddianum*, seen in patches on the valley track and the remnant track. On the sidle track near the crossroads, we saw two naturally occurring kāmahi / *Pterophylla racemosa*. The plentiful fruiting of kōhia / NZ passionfruit / *Passiflora tetrandra* made a spectacle with many vines having fallen to lower levels so seeing their leaves was easy. Other old vines in the remnants and lower valley track have reached a monstrous size. We admired the large hīnau / *Elaeocarpus dentatus* var. *dentatus* below the crossroads from the upstream alternative track branch to the stream, where *Trichomanes venosum* draped the rocky bank. At lunch, a group visited the fifty-one kaihikatea / *Dacrycarpus dacrydioides* planted for the Christchurch mosque victims. The next points of interest in the valley were: the trackside rimu / *Dacrydium cupressinum*, decorated as a Christmas tree most years; the notable large tutu overhanging the stream; and good patches of velvet fern on rocky cliff faces with good fertility. We saw *Sophora* in the lower valley—50 or so we're told—most seen above in typically inaccessible places.

After some people went to nearby bus routes, the remaining group returned to Crofton Downs Station via the *Beilschmiedia tawa*-dominant forest remnant track. A notable feature of the park is the abundance of poataniwha / *Melicope simplex*, especially on the sidle tracks. Wharangi / *Melicope ternata* is also present to a lesser extent and there are hybrids of the two. Also appearing to hybridise are the large-leaved milk tree / *Streblus banksii* and the small leaved milk tree / *S. heterophyllus* - we saw examples of both.

We added several common weed species to the list and eight indigenous plants, including *Griselinia lucida*, *Asplenium appendiculatum*, *Diplazium australe*, *Loxogramme dictyopteris*, *Pteris macilenta*, *Arthropodium candidum*, *Pseudopanax laetus* and *Sophora chathamica* - the latter two not native to the Wellington region.

June Fieldtrip: Devil's Elbow Remnants – Reikorangi Road Bush D, Waikanae

This is one of a series of bush remnants near the Waikanae River; it has a popular swimming hole, though apparently not in winter. We started on a river terrace with tawa/titoki forest and descended fairly quickly to the level of the river, where there are large podocarps, northern rātā, also pukatea. As we went along the river we found a stand of ribbonwood, but the best find of the day was large swamp maire, with healthy seedlings and no myrtle rust. Quite near these were very big toro / *Myrsine salicina*. There were pockets of swampy areas towards the back of the river terrace, with a different flora; we couldn't quite convince ourselves that we had found *Coprosma tenuicaulis* (*C. rotundifolia* being variable and annoying). The river terrace itself was mostly rank grasses, but there were clumps of *Hierochloa redolens* in amongst it.

June Workbee: Te Mārua Bush Workbee, Upper Hutt

On a cool wet morning our small group made short work of planting four each of locally sourced kanuka (*Kunzea ericoides*), red mātīpo (*Myrsine australis*), *Coprosma propinqua* and lowland horopito (*Pseudowintera axillaris*). These were planted in the southern section as both infill to fill the SH2 boundary and to replace the dying plants from the original planting—begun about 2008.

We surveyed the rest of the bush without finding any areas of concern. We did find a grove of black maire (*Nestegis cunninghamii*) seedlings that will be collected for the F&B nursery. We collected three bags of rubbish and weeds including some barbed wire from an original tōtara strainer post. We saw very little tradescantia and montbretia.

July Fieldtrip: East Harbour Regional Park: Moana Road route – Korimako Track

It was a nice clear day for our group of nineteen plus a dog. We met near the bus stop on Marine Parade, Days Bay. The route from Moana Road and back down Korimako track took us about four hours at an easy pace. The BotSoccers were unusually orderly on the walk up to the Main Ridge track, with everyone keeping together as one group. We chose not to set up a learners' group as the Moana Road route is largely single file. This didn't prove to be a problem as we had plenty of people who were keen to share their knowledge.

This Moana Road route up to the Main Ridge track may not appeal to everyone as it is not graded and maintained to the standard of the park's other tracks. However, we made it up the narrow path with no problems, and enjoyed being under the closed canopy, also noting, unsurprisingly, that it is far less weedy than the main tracks. Often along the Moana Road track we saw *Coprosma microcarpa*, and *Nestegis lanceolata*, which the group soon learned. We saw *Syzygium maire* lower down the track, and the plants here looked to be in good health with no obvious signs of dieback. Further up we found the minute orchid *Corybas cheesemanii* in two spots—it had just finished flowering— thanks to Bill's keen eyes for pointing this out.

Once on the Main Ridge track we stopped for a late morning tea before continuing towards Korimako Track. Here the track widened but became quite boggy in places. *Drymoanthus adversus* was common along the track here, with plants easy to find growing on *Pterophylla* (*Weinmannia*) *racemosa*, *Fuscospora solandri* and *F. truncata*. We looked for *Drymoanthus flavus* without luck until we saw a single plant while descending the Korimako Track. Many of the group had stopped botanising by this point and were just enjoying the walk down in the pleasant weather.

August Fieldtrip: Birchville Dam track, Upper Hutt

Birchville Dam was completed in 1931 on Clarke's Stream, a tributary of Te Awakairangi/Hutt River, to supply water to Upper Hutt. It was retired in 1958 when Upper Hutt joined the Wellington regional water scheme. During our trip the track was well used and particularly popular with families and dog walkers.

Eighteen BotSoccers attended the trip, with three travelling by train (thanks to Jenny Fraser for providing transport from the train station). At the initial meeting point, we managed to fit everyone into five cars to carpool to the rather small car park (perhaps the most efficient BotSoc car-pooling ever!?). We were

later joined by Helen White with budding botanist Olivia (9 months) who seemed to enjoy her first BotSoc trip. Most of the group only made it to the dam, along the short flat walk of less than 1 kilometre. This walk is only meant to take about 20 min (without botanising) but the interesting and diverse plants, plus lunch, kept us occupied for over four hours.

Following a quick introduction to fern terminology by Leon, we split into several groups, with some focussing on testing Leon and Pat Brownsey's draft fern guide, others opting for an introduction to flowering plants by Leon, and a few doing their own thing. A few speedy people ventured beyond the dam and reached the ridge but had to return the same way because the Cannon Point Walkway was closed for upgrades.

Some of the largest visible trees of the track were near the bridge by the carpark, including a large tawa (*Beilschmiedia tawa*) and pukatea (*Laurelia novae-zelandiae*). From the dam viewpoint we saw a large rimu (*Dacrydium cupressinum*) and rātā (presumably *Metrosideros robusta*). The forest had a diverse understorey particularly rich in ferns and bryophytes. Five species of tree fern were on the existing plant list with some hosting large five-finger/ whauwhaupaku (*Pseudopanax arboreus*) were notable. We admired a very tall mamaku (*Cyathea medullaris*) near the dam.

We had a few botanical additions to Pat Enright's thorough list, including kāmahi (*Pterophylla* (*Weinmannia*) *racemosa*), nīkau (*Rhopalostylis sapida*), lancewood (*Pseudopanax crassifolius*) and several weeds (both exotic and native).

September Fieldtrip: Introduction to Bryophytes, Tāne's Track, Tunnel Gully

The fantastic weather and interesting location drew a big turnout of twenty-seven people, including several newcomers and two botanists from Southland. Tāne's Track is one of the best lowland forest remnants in the Wellington region—it is dense and damp, providing perfect habitat for bryophytes, the focus of this trip.

From the carpark in a grove of eucalypts we headed around the loop track at bryologist pace (very slowly). Hand lenses and magnifying glasses gave us an appreciation of the intricate beauty of these tiny plants. Leon had prepared a simple guide to distinguish liverworts and mosses so this was our first challenge. We found a good range of bryophytes to test ourselves, so we were soon able to spot the characters that help to generally distinguish between the two groups: leaf veins (mosses) - or not (liverworts or mosses), intricate leaves (liverworts) - or not (mosses) and wiry stalks on spore capsules (mosses) versus fleshy, translucent stalks (liverworts). We were lucky to find many liverwort sporophytes (including in different stages, from emerging to split open in four valves). With their fragile stalks these sporophytes are shortlived and often difficult to spot. Further along the track we added another distinct group to our repertoire - hornworts lined the track bank in places and Paul also spotted an epiphytic hornwort on a branch above the stream.

Vascular plants were largely overlooked during the first section of the track but added *Coprosma linariifolia* to the existing plant list. Towards the carpark, when we were oversaturated with bryophytes, we appreciated the very large northern rātā, pukatea, tawa and hīnau on the valley floor.

President: Frances Forsyth

Secretary: Laura West wellingtonbotsocsecretary@gmail.com <http://wellingtonbotsoc.org.nz/>

■ **Nelson Botanical Society**

August Field Trip: Takaka Hill Walkway

Seventeen members walked relatively briskly towards the summit of Takaka Hill as we were trying to get past the weedy, farmed area and into the more interesting karst landscape. One of the first plants to catch our interest was *Coprosma propinqua* with unusually small leaves, probably due the site being very exposed. Among the large marble rocks there were a few heavily browsed plants of *Melicytus obovatus*. *Coprosma dumosa* is common here and some of the leaves seem to have a small point at the tip which makes it easy to misidentify as *C. obconica*. We confirmed one plant as *C. rugosa* and further along the walk found *C. microcarpa*, *C. colensoi* and *C. linariifolia*. One of more challenging plants to identify was the hybrid *Raukawa x parvus*.

There were a number of *Pimelea longifolia* plants in the forest and a few *Pseudopanax macintyreii*. There were some interesting fungi in the forest including a yellow jelly fungus and the tiny *Corynelia tropica* was spotted growing on the leaves of Hall's totara.

November Weekend Trip to Rocks Hut

A group of five met on Saturday at the Maitai Dam swing bridge, about 9.30am and walked up 830m from Maitai Dam to Dun Saddle. The trail follows the Coppermine cycle track and goes through the very special and distinct ultramafic zone. *Libertia mooreae* was flowering well along the track edge in the lower forest but much less conspicuous were a couple of plants of the finely cut parsley fern, *Sceptridium biforme*. There were a few orchids in flower including *Caladenia chlorostyla*, *Pterostylis graminea*, *P. montana* and *Earina mucronata*. In the ultramafic zone we were delighted to see *Clematis forsteri* in full flower and *Korthalsella salicornioides* growing on manuka.

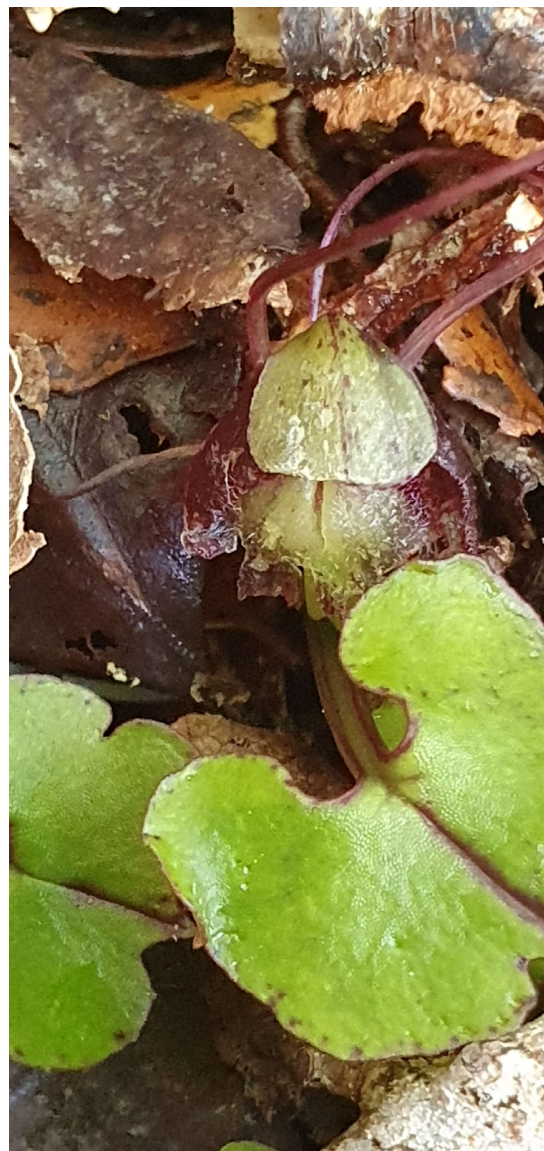
In the open ultramafic scree it was a bit challenging to see the very finely cut leaves of *Anisotome filifolia* and very hard to spot developing fruit hidden among the leaves of *Astelia* "serpentine". Delightful flowers of *Euphrasia monroi* were common and scattered over the area. As hoped, *Myosotis monroi* and *Notothlaspi australe* were in full flower. Between Dun Saddle and Rocks Hut there were large patches of the hybrid, *Lepidothamnus intermedius* × *L. laxifolius* with, in one spot, a small patch of pygmy pine.

From the Dun Saddle it's another few kilometers travel to Rocks Hut which is nicely situated at 800m elevation. Rocks Hut is mostly surrounded by trees, however, affords some gorgeous views to the Southeast, Mt Richmond and Mt Fell.

Sunday began with even better weather and most the group checked out two plants of *Peraxilla tetrapetala*. It was very surprising to see these un-browsed plants low down on an old mountain beech tree when there were fresh deer droppings close to the hut. We spotted some of the very small flowers of *Corybas hypogaeus*, growing among the leaf litter under the mountain beech forest.

We retraced our route, branching off at the Dun Saddle to rejoin the cycle track at the Coppermine Saddle then made a steady descent to the Brook Sanctuary.

Corybas hypogaeus growing under mountain beech.
Photo by Henry Hart



FUTURE EVENTS

See the website: <https://www.nelsonbotanicalsociety.org/>

President: Helen Lindsay 027 2847357

Secretary: Fini Shaw 027 6307487

Email: nelsonbotanicalsociety@gmail.com

Website: www.nelsonbotanicalsociety.org



Clematis forsteri in flower.

■ Canterbury Botanical Society

September Meeting Report - My Summer with the Mountain Daisies by Jane Gosden.

The meeting hall at St Albans Community Centre was fully packed out for Jane's talk on the genus *Celmisia*. There's a lot to be said for learning botany one genus at a time, and Jane's talk was both approachable yet highly informative. Jane started the talk by explaining how the genus *Celmisia* fits into a global and South Pacific context. Jane then talked about the genus *Celmisia* in New Zealand. New Zealand has 60 named species of *Celmisia* and this expands out to about 78 entities once all the varieties and subspecies are accounted for. Jane went through the *Celmisia* species present in Canterbury, including many species we may encounter in this year's show weekend camp to St James Conservation area, as well as some species only found in Canterbury including Banks Peninsula's *Celmisia mackaui*.

The main topic of the talk was Jane's summer adventure over 2022/2023 as Jane attempted to see and photograph as many *Celmisia* entities as she could. Her summer started in November 2022 in her familiar territory of the Castle Hill Basin and from there Jane explored the Old Man Range, The Remarkables, Blue Mountains, Eyre Mountains, Catlins, Fiordland, Garvie Mountains, Cobb Valley & Peel Range, Richmond Range, Lewis Pass, Taranaki Maunga, Whangarei Heads, Ruapehu, Wairarapa, Mt Stokes, Ngakawau Gorge, Denniston Plateau, Charleston, and Banks Peninsula (to name a few). Hampered by COVID-19 and entities which were inaccessible, Jane took the audience on a wild and exciting adventure and her passion was infectious, even with the challenges she faced along the way. The audience started to feel like they could eventually memorise the various entities, when Jane brought up the presence of hybrids. Luckily, a field guide to *Celmisia* is in the works by Jane Gosden with co-author Jane Connor from the Nelson Botanical Society. I know it's a must-have for my bookshelf as soon as it comes out.

September Field Trip Report - Christchurch City Council Birdlings Regional Park at Wairewa/Lake Forsyth and the new Department of Conservation Birdlings Flat Scenic Reserve.

There was a great turnout for a field trip to the Birdlings Flat Shrublands, with the carpark at the end of Lake Terrace Road filled with up with more than 40 participants. The morning was spent at the Christchurch City Council owned Birdlings Regional Park alongside Wairewa/Lake Forsyth. This reserve contains an interesting range of habitats from the lake margin of Wairewa/Lake Forsyth, with a transition through shrubland towards coastal forest. A highlight of the lake margin is a population of the Threatened – Nationally Vulnerable native sea holly (*Eryngium vesiculosum*), which was underwater due to high lake levels. The shrubland was full of flowering native climbers including pink-flowered native jasmine (*Parsonsia capsularis* var. *rosea*, which is classified as Data Deficient), leafless clematis

(*Clematis afoliata*) and scented native clematis (*Clematis foetida*). An interesting feature of the Birdlings Regional Park is the presence of hybrids between the two clematis species. Coastal forest species present included akeake (*Dodonaea viscosa*), which is nearly at its southern national distribution limit, and the At Risk – Naturally Uncommon fierce lancewood (*Pseudopanax ferox*).

After a picnic lunch, the afternoon was spent at the new Department of Conservation Birdlings Flat Scenic Reserve, where the weeds pig's ear (*Cotyledon orbiculata*), spur valerian (*Centranthus ruber*), veldt grass (*Ehrharta erecta*), and karo (*Pittosporum crassifolium*) are invading native shrubland dominated by *Coprosma propinqua* var. *latiuscula*. We got stuck in pulling out what we could but can see the big task DOC have ahead of them to keep all these weeds under control. We thank CCC and DOC staff members Nick Head, Di Carter and Ian Hankin for sharing their knowledge about these special places and for their dedicated efforts to protect them.

October Field Trip Report - Thompsons Road Drylands, West Melton (Environment Canterbury land). Environment Canterbury have recently bought back the grazing leases at Thompsons Road for conservation purposes. The drylands on Thompsons Road are an ecologically significant uncultivated remnant of Canterbury dry plains vegetation on a former riverbed of the Waimakariri River. The western block has recently been retired from grazing while the eastern block has been lightly grazed by sheep.

Twenty-six keen botanists first set out west from Thompsons Road, finding recent gorse control in the area exposing the diverse plant communities of the sand dunes. Knobbly club rush (*Ficinia nodosa*) with its upright golden hues, delicate rosettes of (Threatened Nationally Vulnerable) turnip rooted geranium (*Geranium retrorsum*), stiff carpets of Patotara (*Styphelia nesophila*) and the deciduous (Threatened- Nationally Critical) Canterbury Plains tree daisy (*Olearia adenocarpa*) shared the natural sand dunes, the future of their survival dependent on careful management of the site. We were saddened to see the water race on the southern end of the block had been treated with herbicide, the banks browned with dead bog rush (*Schoenus pauciflorus*) and *Centella uniflora*. A lone hard fern (*Paesia scaberula*) was found by Jason on the banks of the water race, an interesting record for the Canterbury Plains.

Larger sand dunes with more Canterbury Plains tree daisy (*Olearia adenocarpa*), matagouri (*Discaria toumatou*) and dwarf kōwhai (*Sophora prostrata*) were explored, then we went back across the main portion of the block. Fan-leaved mat daisy (*Raoulia monroi*) (Threatened – Nationally Vulnerable) was in full flower, bright white like stars in the night sky. A lone *Carex comans* was spotted under a small-leaved kōwhai (*Sophora microphylla*), rare on the Canterbury Plains, particularly due to *Nasella* grubbing teams. *Zoysia minima* (At Risk Declining) was found on a large sand dune, our native sand binder, along with the exotic marram grass (*Ammophila arenaria*). A lone *Clematis quadribacteolata* scrambling over a matagouri (*Discaria toumatou*) was also a highlight.

Neighbours Jenny and Alastair Nichol invited us over to their property for lunch. A sheltered garden picnic was enjoyed. After lunch, Jenny and Alastair talked about the importance of the sand dunes present on their property – although they were offered a lot of money by sand mining companies to remove them, they held their ground and have preserved them for future generations. The couple have also enhanced an area with old cabbage trees (*Cordyline australis*) and small-leaved kōwhai (*Sophora microphylla*) by planting eco-sourced seedlings in the area. From the Nichol's property we went across to the eastern block of Thompsons Road where we found a similar selection of dryland plants.

Finally, a hardy few went back across to the northern water race on the western block on Thompsons Road. We were excited to discover that *Mentha cunninghamii* (At Risk- Declining), *Gunnera dentata* and *Ranunculus foliosus* were still surviving there. However, a load of silt from water race clearing had buried a former population of *Plantago triandra*, next to an Environment Canterbury sign warning of the ecological significance of the site and its vegetation. Coming back to the Thompsons Road drylands was a sobering trip to mourn the continual loss of our dry plains ecosystems, but also an exciting introduction to many members for the unique and cryptic beauty of these special habitats. We would like to thank Environment Canterbury for allowing us to botanise this special site and their continual efforts to maintain and enhance its ecosystems. We would also like to thank Alastair and Jenny Nichol for opening up their home to us and for showing their conservation efforts as stewards of the land.

FUTURE EVENTS

Changes to the program are notified on: <http://canterburybotanicalsociety.org.nz/canterbury-botanical-meetingsfield-trips>. Future meetings and field trips for the New Year are still to be confirmed and will be notified in the next newsletter.

4th December 2023 Ilse Breitweiser talk on *Craspedia*
13th February 2024 Picnic at Lyttelton Rock, Port Hills

President: Tom Ferguson 027 4716 563 president@canterburybotanicalsociety.org.nz
Secretary: Fay Farrant 027 332 7482 secretary@canterburybotanicalsociety.org.nz
General contact: info@canterburybotanicalsociety.org.nz

■ Other Botanical Society Contacts

Waikato Botanical Society

President: Kerry Jones
Secretary: Wyne Johns
General contact: secretary@waikatobotsoc.org.nz
Website: <http://waikatobotsoc.org.nz>

Rotorua Botanical Society

President: Sarah Beadel 021 924476; Sarah.Beadel@wildlands.co.nz
Secretary: Elizabeth Miller (07) 343 5613; rotorua-botanicalsociety@gmail.com
Web Page: www.wildland.co.nz/botanical.htm

Taranaki Botanical Society

Contacts: Barbara Hammonds 06 7597077; Email: barbara_ha@outlook.com
Janica Amore 06 7520830. Email: waiongona@clear.co.nz

Hawke's Bay Botanical Group

<https://www.facebook.com/Hawkes-Bay-Botanical-Group-590670161140095/>

Manawatu Botanical Society

Jill Rapson: Massey University. Ph (06) 350 5799 Ext 7963; G.Rapson@massey.ac.nz

Whanganui Museum Botanical Group

Our meetings are held every two months on the second Tuesday, alternating with 'Nature Talks' (where the Whanganui Botanical Group has merged with Birding Whanganui and the Whanganui branch of Forest and Bird), which are held on the third Tuesday in even-numbered months. It is intended to continue with monthly botanical field trips to which members of the other two groups are invited.

President: Clive Higgie (06) 342 7857 clive.nicki@xtra.co.nz
Secretary: Margi Keys 0274 481 581 wbotgp@gmail.com

Wakatipu Botanical Group

Chair: Neill Simpson (03) 442 2035
Secretary: Rebecca Teele 027 314 2610 wakatipubotanicalgroup@gmail.com

Botanical Society of Otago

Chair: Gretchen Brownstein, BrownsteinG@landcareresearch.co.nz www.bso.org.nz
Secretary: Angela Brandt, c/- Department of Botany, University of Otago, PO Box 56, Dunedin.
bso@otago.ac.nz

BIOGRAPHY / BIBLIOGRAPHY

■ Biographical Sketch – Joshua Salter (1946-)

Val Smith, valdsmith@xtra.co.nz

In 2005 Peter de Lange asked Joshua Salter to do the botanical drawings for his PhD thesis on *Kunzea*. Her illustrations of the ten *Kunzea* entities he recognised included a species found only on Whale Island in the Bay of Plenty. He named it *Kunzea salterae* in her honour (de Lange 2014).

Joshua was born Mary Lynn Dallas in Hobart, Tasmania, on 12 August 1946, the daughter of Ken Dallas, professor of economic history at Hobart University, and Invercargill-born sculptor Alison Duff. The families of both parents were farmers, mainly of Scottish origin, with some convict ancestry (via Norfolk Island) on her paternal mother's side. Her parents never married, and when they separated in 1948 her mother returned to Sydney as a solo mother and taught sculpture and art until she had enough funds to return to her family at Northcote, Auckland.

In New Zealand Joshua changed schools nine times, and except for the year (1953) that she lived with her South Island grandparents on their small farm near Christchurch, and her fourth form year (1960) at a Gisborne boarding school, she progressed through the Northcote primary, intermediate and secondary schools and completed her fifth and sixth form (University Entrance) years at Westlake Girls High School. From about the age of eight, when her mother married Len Salter, a builder, she was enrolled as Mary Salter, and only later, when arrangements were made to change her name by deed poll, did she learn that her earlier name was not Laird, but Dallas. (Her mother, previously married to Norman Laird and still officially Mrs Laird, had first enrolled her daughter as Mary Laird to avoid her being harassed because of her different surname – and forgot to tell her! Later, in 1970, when a pregnant flatmate in Melbourne pondered the question of a name for her baby, "Joshua" was suggested as an agreeable name for either sex, and in due course they became Josh 1 (Joshua Salter, who had never liked being a Mary) and Josh 2 in the household.

After leaving school at 16, Josh went to the newly established Auckland Teachers' Training College – but disliked it and got out before becoming trapped by the bond system! Then, after various jobs, including stints of teleprinting and operating the pneumatic messaging tubes at the General Post Office, she enrolled at Auckland University for evening lectures in English (1965) and Psychology (1966) but dropped out, having done no work and failed exams both years. At the same time she worked at the Valuation Department, updating land titles and property boundary plans (her first 'draughting' job), was then employed as a tracer for an architectural firm, and later did typesetting, layout and touching up plates for a small offset printing business. After signing up briefly as a job seeker, she did typesetting and layout work for another large offset printing firm in Penrose and saved enough to travel to Tasmania in 1968 and meet her father in Hobart. There, and later in Melbourne (1968–1971), she worked as a draughtswoman in a structural engineering firm, had a taste of art school, and back in Auckland continued what would become some thirty years as a draughtswoman, learning on the job and becoming an engineering detailer.



***Kunzea salterae*, drawn by Josh Salter.**

Her skills enabled her to do well paid contract draughting during the fourteen years she lived in London (1977–1991). In 1980 she made a two-month Greyhound bus tour of the USA, and back in London began a BSc with the Open University in 1983. However, realising it would take eight years to do it that way, she enrolled fulltime at Kings College London, leaning towards the botanical subjects. (At intermediate school the tiny pea flowers of clover had blown her away!) Knowing she would eventually return to New Zealand, she chose final projects with a New Zealand focus, and graduated in 1988 with a BSc (Hons) and the Carter Medal for presentation. Engineering draughting enabled her to save again; in 1990 she married her partner of five years Bill Kirby and the next year they left for New Zealand, detouring en route to climb Mt Kinabalu in Borneo.

Back in Auckland, and unable to get work as a botanist with a mere BSc (Hons), Josh did more draughting work and in 1994 enrolled at Auckland as a PhD student, supervised by Dr John Braggins and Dr Brian Murray. Ten years later her two-volume thesis *Comparative Morphological, Anatomical and Embryological Studies of Prumnopitys taxifolia and P. ferruginea (Podocarpaceae), and the hydrodynamics of their saccate pollen grains* was completed. During this time she also tagged along when Dr Braggins and his bryology students (Matt von Konrat, and later Matt Renner) attended bryology workshops.

Although a botanical career still eluded her, Joshua's skills in the techniques of histology (the study of microscopic structures of tissues) proved useful, first at Auckland University for making animal histology slides for teaching, and then for a post-doctoral fellowship position at Southern Illinois University, Carbondale, where she worked for 18 months (June 2008–December 2009) sectioning the apical cells of various liverworts for Dr Barbara Crandall-Stotler. During this work she noticed unusual shoot morphology in a rare New Zealand liverwort, *Herzogianthus*, which led eventually to a co-authored paper (Renner & Salter 2020). In Illinois she joined the Shawnee Chapter of the Southern Illinois Audubon Society and was introduced to the wilds and shown special places where native rock art is preserved. She also joined the American Botanical Society and has attended several of its annual conferences. On her return from the USA Josh resumed life in Auckland and in 2011 became eligible for national superannuation, heaved a sigh of relief and accepted gratefully her unemployability. Since then she has been part-editor of the Auckland Botanical Society Journal, and done intermittent work on *Herzogianthus* research (mentioned above) and preparing her 2004 thesis for publication. As well as botanical society meetings and field trips, she enjoys bush and coastal walks with her husband and friends and attends most John Child Bryophyte Workshops. She seldom has time for serious reading, but enjoys movies, especially during the Auckland Film Festival. Travelling to the UK is an occasional indulgence, mostly for the art and architecture of earlier eras, and for the pleasures of English gardens and country walks. After the death of her stepfather (1996) and mother (2000), Bill and Joshua moved to the house at 23 Orewa Road, Northcote, where they currently live.

Kunzea salterae

Kunzea salterae in the family Myrtaceae is a kānuka currently known only from Moutohora (Whale Island) off the eastern Bay of Plenty coast, where it is widespread and sometimes the dominant woody shrub or tree of the coastal forest, geothermal field, cobble beach and sand dune vegetation. The typically mult-trunked growth habit, consistently narrow linear-lanceolate leaves and abundance of short, divergent branchlet hairs distinguish it from *K. robusta*, which is the less common of the two species on Moutohora. The genus is named after German botanist Gustav Kunze (1793-1851); 'salterae' refers to Auckland botanical illustrator and conifer embryologist Josh Salter.

REFERENCES

- de Lange P J 2014. A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex. *Phytokeys* 40: 1-185 (accessed online).
 Salter, J 2020. pers. comm.

PUBLICATIONS

■ Publications Received

Auckland Botanical Society Newssheet October 2023 Upcoming trip and talk, request for *Asparagus drepanophyllus* information, books for sale.

Auckland Botanical Society Newssheet November 2023 Upcoming trip and talk, trip reports for Omeru Reserve and Mataia, Banks Peninsula Camp, books for sale.

Auckland Botanical Society Newssheet December 2023 Upcoming trips, available grants, book review of 'London is a forest', books for sale.

Wellington Botanical Society September 2023 Upcoming trips and talks, Ōtari update, Percy Scenic Reserve news, trip reports for Ecclesfield Reserve and Wi Tako Ngātata Reserve, Trelissick Park, Reikorangi Road Bush D, Te Mārua Bush Workbee, East Harbour Regional Park: Moana Road route – Korimako Track, Birchville Dam track and Tāne's Track.

Nelson Botanical Society Newsletter Spring 2023 Trip reports for Goat Hill Track, Tākaka Hill walkway, Wairoa forest weeding, Maitai mineral belt, Mangarakau camp, Rocks Hut ultramafics, Brooklyn Recreation Reserve, talk reports on mountain daisies, Driftwood eco tours, walking in the Dolomites and article on leaf teeth myathodes.

Botanical Society of Otago Newsletter issue 100 November 2023 Upcoming trips and talks, committee notes, BSO photographic competition, the unseen world of fungi, talk reports on fungi dispersal by takahē, naturally uncommon Otago ecosystems, inland saline ecosystems and weeds, trip reports for Ferntree reserve, Taieri Mouth track and Patearoa and Belmont Inland Saline Wetland Management Areas, Pulpit Rock and Silverpeak.

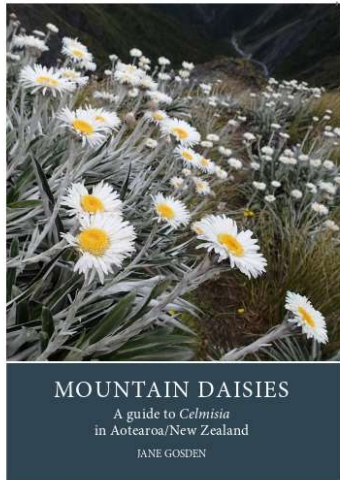
New Zealand Native Orchid Journal no 171, November 2023 Obituary for Brian Molloy, articles on the pink finger orchid, the impact of herbicides on native orchid habitat, how climate change may affect our orchids, the type locality of *Caladenia lyallii*, Hatch Medal 2023 recipient Bill Campbell, upcoming events.



Notothlaspi australe growing in ultramafic scree. Photo by Chris Ecroyd.

The first New Zealand book devoted to the iconic genus *Celmisia*

Pre-order now!



Getting to grips with the iconic and diverse (mostly) alpine genus *Celmisia* – the third largest in the flora of Aotearoa/New Zealand – can be a challenge. This comprehensively illustrated guide makes it easy to identify species, subspecies and varieties.

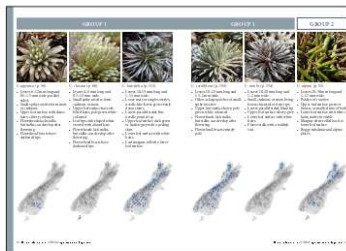
Aimed at everyone with an interest in our alpine plants, this handy field guide takes a novel approach. Following an informative introduction, the first section identifies 17 broad groups based on plant form and leaf characteristics that can be seen in the field without magnification.

The second section applies more detailed criteria to distinguish the species and subspecies within these groups. Often the distinguishing feature may be its distribution, and maps showing the geographical range could provide a quick identification.

Species-by-species descriptions (including varieties, and with separate entries for subspecies) make up the bulk of the book. With over 900 photographs, most features described in the text are illustrated.

The vexed questions of hybrids, unnamed entities and challenging lookalikes are also addressed.

- 78 species, subspecies and varieties described and illustrated
- A5 format, 186 pages
- More than 900 high-quality photos
- Distribution maps for each species and subspecies
- Quick identification reference to recognisable groups (available free)
- \$30 (incl. p & p)
- Also to be available as an electronic publication



HOW TO ORDER

Printed books will be available in mid-December (\$30 incl. p&p).

The book will also be available in electronic form (date to be advised). Please indicate your interest on the order form.

The quick identification guides that make up the first two sections of the book will be available from the end of November FREE as a PDF from: <https://www.manukapress.co.nz/mountaindaisies>

This is a handy PDF that can be taken into the field.

Please complete the order form on the Manuka Press website: <https://www.manukapress.co.nz/>

You will then receive an invoice with payment details (direct credit preferred; PayPal with credit card option available for overseas orders). Books will be dispatched immediately stock is available after payment is received. A 10% discount for orders of two or more books (including other Manuka Press titles) is calculated at the time of order and will be applied to the invoice sent.

PUBLISHED BY MANUKA PRESS

