

Canterbury Botanical Society (NZ) Inc.

Seventieth Annual Report

June 2022 – May 2023

Officers and Committee

President: Tom Ferguson

Vice-President: Jason Butt

Secretary: Fay Farrant

Treasurer: Sue Stevens

Membership co-ordinator: Gillian Giller

Committee: Melissa Hutchison (website manager), Dean Pendrigh (newsletters), Alice Shanks (programme co-ordinator), Miles Giller, Jane Gosden (programme coordinator), Kate Steel, Paula Godfrey, and Ed Wilson (resigned mid-term).

Monthly meeting programme

- July – **AGM** followed by a **screening of *Can Christchurch still call itself the Garden City?*** A Frank Film that asks whether Christchurch is still actively earning its brand, followed by a discussion where members with contrary opinions expressed their views. The film is available to watch at <https://youtu.be/KtQ7ykNOR58>
- August – **Dr Colin Meurk** on *How plants can thrive on stress and disturbance, with particular reference to novel habitats in cities*. Colin spoke on the Grime Stress-Disturbance model of plant evolutionary strategies, an interesting discussion for Canterbury where succession can lead to the loss of our high disturbance communities such as drylands and turf communities.
- September - **Paul Brody** on *Methane, up, up and ... down?* Paul's talk covered the sources of methane to the global atmosphere. What are the methane sources in Aotearoa? How can we make immediate cuts to methane emissions globally, nationally, and locally? What are the prospects for further reductions and to what extent will this mitigate climate disruption? All these points were comprehensively discussed. Paul is retired from University of Canterbury where he researched the ecology and taxonomy of freshwater and terrestrial algae and the taxonomy of Cyanobacteria ("blue-green algae").
- October – **Cara-Lisa Schloots** on the *End Peak wetland complex*. Cara-Lisa Schloots, a recent MSc graduate from the University of Otago, spoke about her study of the End Peak wetland complex, an exceptionally intact, high alpine wetland situation in the Harris Mountains of Central Otago. Water levels, vegetation and the seed bank were investigated, allowing insight into the structure and variability present in this type of rarely studied ecosystem.
- November – **Film Screening: *Rohe Kōreporepo: The Swamp, The Sacred Place***. A special showing of the humbling and inspiring film of people and their work to restore and repair wetlands and the broken connections, followed by a panel discussion led by Kathleen Gallagher, the filmmaker, and Jason Butt, ECan Regional Wetland Officer.

- December – **Dr Paul Maurice** gave a talk entitled *In the footsteps of the explorers of the Great Plains of China*. Paul Maurice gave a very informative talk on his travels around southwest China, Yunnan and Sichuan provinces. The quality of the flower photos was exceptional, and members were delighted to see popular garden plants in their natural habitat.
- February – **Field trip** to Tauhinukorokio/ Mount Pleasant Scenic Reserve, in the place of a meeting. A relaxed picnic dinner was enjoyed, followed by a walk around a local scenic reserve, where we were able to observe Canterbury's only natural population of the Threatened – Nationally Critical *Leptinella nana*.
- March – **Robb Eastman-Densem** on *A brief overview of the taxonomy of the New Zealand Brachyglottis rotundifolia species complex, and a pilot study into its morphological variation*. Robb, a postgraduate student at the University of Canterbury, recently completed a pilot study into this complex working with Pieter Pelser. He discussed changing taxonomic concepts within the group from Kirk's 1899 classification through to the present day, looking at morphological differences. Robb is studying highly threatened limestone gentians for his MSc project.
- April – **Dr Peter Heenan** on *The myth of 'local' ecosourcing and the paradigm of eco-evolutionary regions to provide resilient conservation outcomes*. Peter gave a well-attended talk about a significant science collaboration to get the "right tree" in the "right place" to grow an ecologically appropriate and resilient forest. The first of several science papers has now been published. Funders, landowners, restoration advisors, seed collectors, plant nurseries and planting gangs can check the evidence to make sure they are doing their part right.
- May – **Associate Professor Justin Morgenroth** of the School of Forestry Kura Ngahere, joined by Toby Chapman, Christchurch City Council Arborist on *Urban forest cover.*, Justin discussed his desktop exercises undertaken for Christchurch City Council using Lidar aerial images, measuring vegetation greater than 3.5 metres. Canopy cover has decreased in Christchurch City (Excluding the Banks Peninsula ward) from 15.59% in 2015/2016 to 13.56% in 2018/2019. Toby Chapman discussed the proposed Ōtautahi Christchurch Urban Forest Plan to try to grow the urban forest area in Christchurch.

Monthly Field Trips

- June – **Botany of the Canterbury Agricultural Park and Ngā Puna Wai**. William Reinders and Tom Ferguson showed us around the Canterbury Agricultural Park and Ngā Puna Wai. A range of different blackberries were seen, discussions around restoration planting abounded and William went over and above to look for aquatic plants to show the group. Planted specimens of the rare *Muehlenbeckia astonii* and *Mazus novaezeelandiae* subsp. *impolitus* were making themselves at home - exciting in an urban environment. A *Rytidosperma merum* hunt in a grazed paddock concluded the day.
- July – **Pūtaringamotu Riccarton Bush**. We were shown around Christchurch's lowland swamp forest remnant by ranger Mike Steenson. The 150- to 600-year-old kahikatea with a 30-year-old mahoe sub-canopy held many treasures as we were able to explore some of the less visited areas of the forest, seeing plants like *Gahnia xanthocarpa* and *Astelia grandis*.
- August – **Te Oka Scenic Reserve, Okuti Valley**. This was our first visit to this land-locked DOC reserve that sits high up above Okuti Valley just below Bossu Road. The core of the reserve is a century old, with an extension in 2004 to increase the area to just

under 20 hectares. Under a mature tōtara, kahikatea and mātai canopy we discovered the rare and endangered *Macrocystidia reducta* (fishy pouch fungus – smells a bit like rotten fish, looks like a pouch), found on Banks Peninsula only in native podocarp forest. Including this fungus, we added 37 species to iNaturalist for this site.

- September – **Historic arboretums of the Selwyn District.** We first visited the McHugh plantation, a 43 ha reserve established in 1893 as a plantation forest for timber and shelter. It is now managed as a Selwyn District Council reserve and has developed a ground cover of ferns, and an interesting understorey of both native and exotic plants. Then, the Central Canterbury Farm Forestry Association's Silverwood Arboretum on Leaches Road with its dryland trials of both alternative forestry and native plantings. Finally, the Adams Arboretum at 53 Adams Road, Greendale, which had a collection of trees dating from 1865.
- October – **Waimakariri dryland kānuka forest.** A Canterbury Plains kanuka remnant on private land was visited in the Waimakariri District, where we were able to see *Clematis quadibracteolata* in flower. Highlights included a strange *Coprosma intertexta* hybrid and *Carex goyenii*.
- November – **Spring Camp to Coleridge, based at the Glenroy Baptist Camp.** The Canterbury Botanical Society Show Weekend camp visited the volcanic Rockwood Range and the glacially scoured, steep Peak Hill Conservation Area by Lake Coleridge. In three days, the group botanised short tussock, wetlands, montane shrubland, and experienced that classic Canterbury prickly trio of taramea (*Aciphylla spp.*), tūmatakuru (*Discaria toumatou*), and tātarāmoa (*Rubus spp.*).
- December – **Boundary Creek Conservation Area, Motunau.** We botanised a rarely visited 75 ha beech forest conservation area on either side of Glendhu Road, inland from Greta Valley. The sandstone gorge landscape was a haven for filmy ferns, with *Teucrium parvifolium* along Boundary Creek and orchids such as *Caladenia chlorostyla* and *Chiloglottis cornuta*.
- February – **Trigg Road wetland, Woodstock, View Hill.** For World Wetlands Day, we got our feet wet and our eyes in for *Juncus* and *Carex* species in the Woodstock wetland. Spotting square sedge (*Lepidosperma australe*) in a drain over lunch was a nice surprise as this rush is uncommon in Canterbury.
- March – **Bioblitz at Muriwai o Whata Coopers Lagoon.** Environment Canterbury organised a Bioblitz at Muriwai o Whata Coopers Lagoon, which covered a range of habitats from the beach to the lagoon and the surrounding wetlands. Over 100 people turned up and native species logged included three with a conservation status of At Risk: New Zealand swamp nettle (*Urtica perconfusa*), *Oxybasis ambigua*, and New Zealand musk (*Thyridia repens*).
- April – **High Bare Peak, Little River.** We visited a Little River farm with stream gullies of kānuka-māhoe forest, stands of mānatu, houhi and kōwhai on old slips and slumps, and hillsides of *Coprosma virescens* scrub, colouring up orange in the cool weather. Destocked 18 months ago, seedling mahōe, kawakawa, rohutu and *Coprosma* species already carpet the forest floor. However, keeping stock, deer, goats, and pigs out of the forest is an ongoing job. We all got a whiff of why the endemic and endangered Banks Peninsula fungus *Macrocystidia reducta* is called "fishy guts".
- May – **Terrible Gully, Rakaia Gorge.** The BOTSOC followed a DOC easement up Terrible Gully to the Mount Hutt Conservation area. A highlight of the area was the number of large *Olearia paniculata* trees. As the easement track was overgrown with

matagouri/tūmatakuru (*Discaria toumatou*), we followed the riverbed, eventually hitting a steep scree bank. Along the way we took out wilding pines and a *Cotoneaster coriaceus*. A rough scramble up a scree bank led up to a terrace full of *Veronica raoulii*. After zigzagging across a steep slope, we eventually reached a scenic view over the Rakaia River out to Lake Coleridge village and Peak Hill. Although the effects of a long period of grazing was evident in the botanising, we had a great day up in the high country.

Submissions

- **To Selwyn District Council Plan Hearings** – Paula Godfrey and Tom Ferguson
- **Against three new novel houseplants** – Jane Gosden and Alice Shanks
- **On Ōtautahi Christchurch Urban Forest Plan** – Alice Shanks

Membership

At the end of the 2022-2023 subscription year, there were 175 paid memberships (individual, family and student) and 8 life members. During the year the 29 new members included 3 family memberships and 1 student membership. There were 13 resignations.

Awards

Ilse Breitwieser is being awarded the Senior Bledisloe for her contributions to botany.

No Junior Bledisloe is being awarded this year.

Two prizes were awarded at the Canterbury-Westland Science Fair. The Senior Prize was won by Charlie Cadillac looking at the effect of *Eucalyptus* allelochemicals on rates of seed germination, and the Junior Prize was won by Gabriella d’Auvergne on seed dispersal when being blown by a fan.

Facebook and Website

Our social media presence on Facebook is increasingly reaching people across the world, with 723 followers at last count, up 84 from last year. Technology is an important part of connecting with the botanical community across the country, with many followers from other regional botanical societies. Melissa has updated the membership page on our website: <http://canterburybotanicalsociety.org.nz/membership>, which I think is a great pointer for people who are interested in joining.

Many thanks to

John Clemens, our Journal Scientific Editor and Joy Talbot, our Journal Technical Editor, the Committee, and all members of the Canterbury Botanical Society for your support.

Thank you,

Tom Ferguson
President