

# NEWSLETTER April 2022

Previous issue: December 2021

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## President's Message

The Covid Omicron outbreak is nearly over. Meanwhile we continue with monthly meetings by Zoom. The April field trip was postponed. It's a shame that as a society we're not getting out and about, but smaller informal trips with a car-load of botanists could help keep our plant-spotting eyes sharpened.

As the AGM approaches in August, there will be four vacancies for new committee members to join our team. My term as president ends in August after five years. This position involves hosting monthly public meetings and chairing committee meetings every six weeks. Kate Jordan, our secretary, will retire at the AGM, after three years' dedicated work—running Zoom meetings, taking committee minutes, leading field trips, etc. Treasurer Chris Moore is moving to Tauranga later this year after two years' of dedicated work. The treasurer's role involves maintaining BotSoc's finances using the society's on-line bank accounts. Liaison with Helen White, Membership Secretary, is part of the job. Full training will be provided but some Microsoft Excel spread-sheet skills are required.

Our Submissions Coordinator, Bev Abbott, retired last year. This position involves submitting several times a year on matters of interest to the society.

If you would like to volunteer for the committee, or you know someone who could be keen, please contact me: jon.terry.nz@gmail.com

Jon Terry

## **Wellington Botanical Society**

Address:PO Box 10 412, Wellington 6140Web site:www.wellingtonbotsoc.org.nzPresident:Jon Terry021 168 1176Vice-Presidents:Owen Spearpoint562 8780

Sunita Singh 387 9955

Secretary: Kate Jordan 027 899 0018

wellingtonbotsocsecretary@gmail.com

**Treasurer:** Chris Moore 479 3924

**Membership** Helen White

Secretary: wellingtonbotsocmembership@gmail.com

**Auditor:** Jane Humble 971 6970

**Submissions** Vacant

coordinator:

Bulletin editor:Eleanor Burton479 0497NewsletterChris Horne475 7025

editor: jchorne15@gmail.com

28 Kaihuia St, Northland, WN 6012

Annual ordinary \$35; country \$30; student \$10;

**subscription:** joint/group/family \$40.

Send your subscription to our bank account 020536 0017812 00. Particulars: Name; Code: Membership type; Reference: amount of included donation. New subscribers: Please complete form at the back of this newsletter.

#### Articles for web site

We welcome articles for consideration for inclusion on our web site:

www.wellingtonbotsoc.org.nz
Please send your article to:
Richard Herbert
e-mail herbert.r@xtra.co.nz

## Writing for the Bulletin

Do you have a botanical anecdote, observation, or insight that you could share with others in BotSoc? If so, please consider contributing it to the *Wellington Botanical Society Bulletin*. There is still plenty of space in the next issue. For more details and assistance, contact Eleanor Burton at esmereldadoris93@gmail.com or 479 0497.

#### **BotSoc on Facebook**

https://www.facebook.com/ groups/322939557873243/

This is the unofficial page for Wellington Botanical Society.

#### **Meetings**

BotSoc meetings are usually held at 7.30 p.m., third Monday each month at Victoria University, WN – Lecture Theatre MYLT101, ground floor, Murphy Building, west side Kelburn Parade. Enter building 20 m down Kelburn Pde from pedestrian overbridge. No meetings December and January. QR code and hand sanitiser at door.

#### Field trips

Day trips to locations in the Wellington region are usually held on the first Saturday of each month.

Extended excursions are usually held at New Year, and sometimes Easter and the first weekend in December.

## ATTENDING FIELD TRIPS AND MEETINGS POST LOCK-DOWN

### **Ideas please**

We welcome your ideas about:

- places to visit on field trips, and potential leaders of those field trips.
- topics and speakers for evening meetings Please send your ideas to Sunita Singh, PO Box 10 412, Wellington 6143, ph 387 9955.

## Field trips—single day

A field trip, usually lasting 4–5 hours, is an opportunity to learn how to identify native plants and adventive plants (weeds). During the trip, experienced participants record the species seen. After it, a new or updated plant list will be produced for the site. This list will be published on the NZ Plant Conservation Network web site, and copies sent to trip participants, landowners and managers.

If you intend to join a field trip, PLEASE phone or e-mail the leader at least TWO DAYS beforehand, so that he / she can tell you of any changes and / or particular requirements. If you cannot ring or e-mail in advance, you are welcome to join on the day. If you e-mail your intention, the leader will send you a copy of the draft plant list, so that you can print it out to bring with you. If you do not have a printer, tell the leader. At the meeting place, the trip leader will ask you to write on the registration form your name, e-mail address (so that you can receive the updated plant list), and a phone number for the leader to ring your next-of-kin in an emergency.

Booking on field trips: Give the leader/s your cellphone number so that we can contact you if you are running late.

#### What bring—clothing

Choose from the following items, according to the weather forecast, and your personal needs: sun hat, woollen or polyprop beanie or balaclava, waterproof / windproof raincoat (parka) and over-trousers, long-sleeved cotton shirt\*, singlet\*, thermal or woollen top, woollen jersey or fleece jacket, nylon shorts or trousers\*, polyprop long-johns, underclothes, thick socks, boots or walking shoes, gloves / mittens.

\*Note: In wet, cold weather, do not wear cotton shirts, singlets, t-shirts and trousers.

#### What to bring—gear and food

Day pack with lunch, biscuits or scroggin, hot or cold drink, spare clothing, personal first-aid kit, note-book, pen, pencil, cell-phone, wallet. Optional: walking pole, clip-board, map or park brochure, camera, binoculars, hand-lens, sun-block, sun-glasses, insect repellent, whistle, toilet paper, hand sanitiser.

### Field trips—overnight

Field trips usually last two days; at Easter, three days. We may be based at a camp-ground with or without cabins, or a rented house, or a private bach. The field trip may last 4-7 hours each day.

#### Overnight trip gear and food

Add to the day-trip gear, food and drink listed above: breakfast, fresh fruit, torch, spare bulb and batteries, candle, mug, plate, knife, fork, spoon, small towel, soap, tooth brush. If accommodation is not provided for, bring tent, fly, poles and pegs, groundsheet, sleeping mat, sleeping bag, sleeping-bag liner and stuff bag. Optional: matches in waterproof container, water purification tablets, pocket knife, large plastic survival bag to line pack, gaiters. Note: dinners may be 'pot-luck'—ask the leader to suggest what your contribution might be.

#### **Summer camps**

These field trips last 7-10 days. Full details will appear in the newsletter.

## Health and safety

The leader will bring BotSoc's comprehensive first-aid kit, a topographic map, a cell-phone, and give a health and safety briefing.

The leader will describe the route, and approximate times for lunch, tea breaks and the end of the trip.

Bring your own first-aid kit. If you have an allergy or medical condition, bring your own anti-histamines and medications, tell the leader of any problems you may have, and how to deal with them.

Before the trip, if you have any doubts about your ability to keep up with the party, discuss this with the trip leader, who has the right to restrict attendance.

If you decide to leave a trip early, you must tell the leader, and be confident that you know your way back to the start. Enter your name on the 'register' under a wind-screen wiper on the leader's car, or other agreed place, to record your safe return.

#### Fitness and experience

Our field trips are mostly on established tracks, and at a leisurely pace, but vary considerably in the level of fitness and tramping experience required. Although our main focus is botanical, our programme sometimes offers trips which, in the pursuit of our botanical aims, are more strenuous than others. Although leaders take care to minimise risks, you participate at your own risk.

## Transport

When the use of public transport is practical, details will appear in the newsletter.

We encourage the pooling of cars for trips. If you need a lift, tell the trip leader.

*Passengers:* Pay your driver your share of the running costs. We suggest 10c per km / passenger. If a trip uses

the inter-island ferry, pay your share of the ferry fare. If you change cars mid-trip, leave a written note for your driver, under a wind-screen wiper on her or his car, and check that your new driver adds you to her or his list.

*Drivers:* Ensure that you know the route to the start of the trip, and that you have a written list of your passengers. Zero the odometer at the start, and agree on a return time. Check from your list that all your passengers are in the car. Collect contributions towards transport costs.

## **Trip leaders**

Draft a trip report for the newsletter, including a list of participants, then send it to the editor.

#### Other matters

If after your first BotSoc field trip, tell the leader if you think there is information newcomers would appreciate seeing about future trips, in the newsletter, on the web site, or on Wellington Glean Report.

If you would like to offer to lead a field trip, or be a deputy leader on a field trip, contact our programme organiser, Sunita Singh, sunita@actrix.co.nz

## **Meetings**

#### **Public transport to meetings**

The following bus services stop on Kelburn Parade outside Victoria University's Murphy Building Lecture Theatre M101:

#### TO MEETINGS

- **No. 18e Miramar**: 7.05 p.m. from Karori Park, 7.21 p.m. @ VUW.
- No. 18e Karori: 7.00 p.m. from Miramar Darlington Rd, 7.43 p.m. @ VUW, or 6.00 p.m. from Miramar, 6.43 p.m. @ VUW.
- **No. 21 Courtenay Place**: 7.01 p.m. from Karori Mall Beauchamp St, 7.13 p.m. @ VUW.
- **No. 21 Wrights Hill**: 7.00 p.m. from Courtenay Place Stop A, 7.08 p.m. @ VUW.
- **No. 22 Mairangi**: 7 p.m. from Wellington Station Stop C, 7.08 p.m. @ VUW.
- **No. 22 Wellington Station**: 7.02 p.m. from Norwich Street, Wilton, 7.17 p.m. @ VUW.
- **Cable Car**: 00, 10, 20, 30, 40, 50 minutes past the hour from Lambton Quay terminus to Salamanca Station. Ten-minute walk to Murphy Building lecture theatre M101 at VUW.

#### FROM MEETINGS

- **No. 18e Miramar**: 8.05 p.m. is the latest bus from VUW, so catch a no. 21 or No. 22 to CBD—see nos. 21 and 22 below —then a no. 2 to Miramar/Seatoun.
- No. 21 Courtenay Place: 9.13 p.m. or 10.13 p.m. from VUW.
- **No. 22 Wellington Station**: 9.38 p.m. or 10.38 p.m. from VUW.

Cable Car: No service after 8 p.m.

For further information ring Metlink, 0800 801-700.

## **NOTICES**

## Awards and grants

## 6 September. Jubilee Award 2022 – Applications sought

The Wellington Botanical Society invites applications for an Award of up to \$2,600 to encourage and assist applicants to increase knowledge of New Zealand's indigenous flora, and to commemorate the Society's Jubilee in 1989. See full details elsewhere in this newsletter.

## 6 October. Wellington Botanical Society—Grant to Graduate Students

Each year the Wellington Botanical Society provides small grants to assist post- graduate student in VUW's School of Biological Sciences with travel, materials and other costs related to research projects done as part of the course of study. Grants to any one student will not normally exceed \$600. Make your application initially through your supervisor to Nicola Nelson by 6 September 2022.

Allan Mere Award for 2022. Information from and nominations to NZ Botanical Society.

• www.nzbotanicalsociety.org.nz

#### **Events**

2nd Saturday each month, except January. Ōtari-Wilton's Bush – Plant Care. Meet: Tāne Whakapiripiri Visitor Centre, 160 Wilton Rd, Wilton at 9:00 a.m. Bus: No. 14 Wilton bus, Ct Pl 8.28, Molesworth St 8.36, alight Warwick St. Planting: winter months: weed clearance other months.

Wilbur Dovey. Landline 499 1044. Mobile 027 499 1044.

• 5 June. Arbor Day.

#### New members

We welcome the following new members: Denis Asher, Paul Bell-Butler, Oliva Bird, Philippa Kirkham, Alexandra Ortega.

Helen White, Membership Secretary

## FIELD TRIPS & EVENING MEETINGS

The following programme IS SUBJECT TO CHANGE. If you wish to go on a field trip, PLEASE help with planning by giving the leader 2 days' notice before a day trip, MORE notice before weekend trips, and SEVERAL WEEKS' notice before the New Year's trip.

Non-members are welcome to come to our meetings and to join us on our field trips.

#### **Evening meetings**

Victoria University / Te Herenga Waka is operating under special conditions during the Omicron Covid-19 outbreak. This includes reduced access points to enter the university and a vaccine mandate. They have been unable to confirm whether or not we can use Murphy Building Lecture Theatre M101. Our monthly meetings will be by Zoom only until we receive confirmation of our room booking. We know that many members are missing the monthly get-together. We are making every effort to obtain a room booking. Please check our web site for the latest information.

*Frances Forsyth—for the committee* 

## JUNE – SEPTEMBER 2022 + JANUARY 2023

#### Saturday 11 June: Field trip

#### Tuapaka/Hutton's Covenant, Te Horo

Jim Matheson and Sarah MacLean own Tuapaka/Hutton's Covenant in Te Horo—9 ha of lowland forest on a steep slope above the Ōtaki floodplain. The site has had possum and rat control for the past twenty years and has been regenerating very well. Please be aware that the covenant is primarily to protect the Nationally Critical snail species *Powelliphanta traversi otakia*, which exists in only one other known site. There are several tracks in the bush—we will stay on them to reduce the risk of trampling snails. *Meet*: 9.45 a.m. Waikanae Station, north-end car park. Car pool: then travel in convoy to site. Train: 8.14 a.m. Kāpiti Line train WN to Waikanae. Leaders: Eleanor Burton 021 0588 324 / esmeraldadoris93@gmail.com. Kate Jordan 027 899 0018 / kateljordan@gmail.com.

#### Saturday 18 June: Field trip – workbee

#### Te Mārua Bush, Upper Hutt

In partnership with Greater Wellington, BotSoc has been committed since 1989 to do weed control and revegetation in this important mataī / tōtara / black maire remnant in Kaitoke Regional Park. Our biennial workbees must continue so that we keep ahead of re-invasion by weeds, particularly around the plantings, so *please* come to help with this important work. Bring weeding gear: gloves, kneeler and your favourite weeding tools, e.g., trowel, hand fork, grubber, loppers, pruning saw. There may also be some planting. **Meet**: 9.30 a.m. at Te Mārua Bush. (250 m north of Te Mārua Store and then left off SH2 for 50 m on Twin Lakes Rd, Kaitoke Reg. Pk. **Train**: 8.05 a.m. Hutt line train WN to Upper Hutt—ring the leader to arrange to be met at Upper Hutt Station. **Maps**: NZTopo50-BP32 Paraparaumu; street map. **Co-leaders**: Glennis Sheppard 526 7450, Sue Millar 526 7440.

#### Monday 20 June: Evening meeting

## Rekohu – updating what we know of the flora and lichenised micobyota of the Misty Islands

Speaker: Peter de Lange. Since 1996 I have made regular visits to the Chatham Islands' group, initially with the Department of Conservation (1996–2015), then as part of a Television Series and finally as a member of the Chatham Islands Conservation Board (2018–). Our knowledge of the island group's flora and lichenised mycobiota has improved considerably. Several new endemic species of flowering plants and lichens have been described. The focus has shifted to the lesser known "flora", especially lichens—which still remain very poorly known for the island group. As the Tony Druce Memorial Lecturer in 2008, I reported on botanical research on the islands. It is timely to update what I said then, with what we now know of the islands, their shifting conservation effort and to say what still needs doing there. This is timely, as the pandemic has made the Chatham Islands the 'Rarotonga' of Aotearoa, with increased tourism that has both benefited and stretched the islands' economy and environment. Further the Moriori Deed of Settlement now formally acknowledges the islands' indigenous people, and makes provision for their co-management of the islands' reserves and biota.

#### Saturday 2 July: Field trip

#### Whakanui Track, Remutaka Forest Park

Botanise hillside forest in southern Wainuiomata. The track is good and though steep, we'll climb it at botanists' pace, because the forest is diverse. Climb as far you like – if you reach 550+ m you may see raukawa / *Raukaua edgerleyi*. **Meet**: 9.30 a.m. near south end of Sunny Grove, Wainuiomata. **Co-leaders**: Leon Perrie, 027 419 1378, Lara Shepherd 027 363 5854.

#### Monday 18 July: Evening meeting

## Seeds, Surveys & Sweet Finds—Working as a self-employed botanist in the lower North Island

Speaker: Matt Ward, Owner/Operator of RESTORE, will explain what the eco-sourced seed-supply business entails, outline some projects he is involved in and share some botanical treasures he has found during his work.

#### Saturday 6 August

#### Paraparaumu Scenic Reserve

Botanise this 174 ha forest with big kohekohe, tawa, podocarps plus diverse understorey, a kahikatea / pukatea bog and wetlands. No official tracks—many informal ones. A Nīkau Valley Restoration Society member may brief us—they would like us to prepare a species list to guide restoration plantings. You may wish to explore the valley sides to the ridgelines either side to see the variety of forest types. Maps: NZ Topo50-BP32 Paraparaumu; street map; https://envirohistorynz.com/2011/01/views-of-kapiti-5-paparaumu-scenic-reserve. Meet: 9.30 a.m., car-park entrance, 115 Maui Pomare Rd (exit old SH1 just north of Paraparaumu overbridge onto Nīkau Valley Rd). Leader: Owen Spearpoint. For people new to learning native plants Owen will give an introductory session. owen.spearpoint@gw.govt.nz 027 285 8083.

#### Monday 15 August: Evening meeting

## Tony Druce Memorial Lecture: Deer damaging Druce legacy in Hawke's Bay

Speaker: Marie Taylor, Plant Hawke's Bay Ltd, a wholesale revegetation nursery, Napier; board member, Nursery Industry Organisation NZ Plant Producers Inc; trustee, The Gwavas – Puahanui Charitable Trust Board caring for a 130 ha lowland podocarp forest remnant, Tikokino, Hawke's Bay. Marie will focus on the problems deer (and goats and other browsing animals) create in Hawke's Bay. Few fully functioning forests are improving in condition in Hawke's Bay, unless deer-fenced. Deer numbers have increased to catastrophic levels in most of Hawke's Bay, impacting on long-established reserves, causing much damage to new plantings and threatening vegetation cover in the ranges. Many bush remnants she worked in as a QEII National Trust rep in the 1990s and 2000s have plant lists created by BotSoccer Tony Druce, so we know what species were in the landscape in the recent past. Effective conservation is now very expensive, not only to fence remnants, but also to remove the browsers afterwards. Doing nothing is seriously hastening habitat loss.

#### Saturday 3 September: Field trip

#### Kiripiti Scientific Reserve, Old Hautere Rd, ōtaki

Botanise this 2 ha reserve of second-growth lowland forest. Canopy: tōtara, mataī, tītoki + a dense understorey of small trees and shrubs, e.g., *Lophomyrtus obcordata*, *Streblus banksii*, *Coprosma crassifolia* etc., + a suite of weeds. Fenced off—1971; last BotSoc visit—1977 to assist with a plot survey. **Train:** 8.14 a.m. Kāpiti Line train WN to Waikanae. **Meet:** 9.45 a.m. Waikanae Railway Station north-end car park; Convoy travel to Ōtaki Forks Rd, junction SH1, at 10.20 a.m.

Time permitting, return via Rangi's Bush cemetery, north of Whenuatapu Cemetery to botanise a 4.14 ha remnant of lowland kohekohe forest. See *WBS Bulletin 45* re 1983 visit by Maggy Wassilieff et al. **Leader**: Mick Parsons 027 249 9663 parsonsroad@gmail.com

#### 21-28 January 2023: Summer Camp

#### The Catlins, Coastal Otago

**Base:** Kōtuku Camp, Tautuku Outdoor Education Centre. **Visit:** fossilised forest, lowland forest, coastal estuary, etc. **Full details + booking form:** September newsletter. **Maps:** NZTopo50 CG13 Chaslands, CG14 Owaka, CG15 Nugget Point, CH13 Curio Bay. **Link:** https://www.doc.govt.nz/parks-and-recreation/places-to-go/otago/places/catlins-coastal-area/?tab-id=50578



Lophomyrtus obcordata fruit. Photo: Jeremy Rolfe.

Help raise funds for BotSoc's Jubilee Award Fund – bring named seedlings/cuttings for sale at each evening meeting

## **PUBLICATIONS**

- 1. What's up DOC. 4/22.
  - www.doc.govt.nz
- Open Space. 101, 11/21: Farming & Nature Working together; "Jobs for Nature" @ QEII; "Partners in Protection / Ōhākī" leaving a legacy by protecting land; Carol Burgess new Regional Rep for New Plymouth; Joanna Buswell North Taranaki Regional Rep; "Oh, deer" the problems they cause; Annual Report; etc.
  - qeii.org.nz, PO Box 3341, WN 6140, info@qeii.org.nz, 04 472 6626.
- 3. (a) NZ Botanical Society newsletter. 146, 12/21: Craspedia lanata; Committee for 2022; NZBS on Facebook; news from regional botanical societies; Boston ivy / Parthenocissus tricuspidata; biographical sketch—A.C.S. Wright OBE (1915–98; Rodney Lewington (1915–98); Name That Flower The Identification of Flowering Plants. Ian Clark & Helen Lee—review by Murray Dawson. Melbourne University Press, 10/19.
  - **(b)** NZ Botanical Society newsletter. 147, 03/22: Allan Mere Award—call for nominations; news from regional botanical societies; biogrphical sketch—Patrick Brownsey (1948—); *The Hidden Beauty of Seeds & Fruits: the botanical photography of Levon Bliss*—book review by Rhys Gardner. www.nzbotanicalsociety.org.nz
- 4. Canterbury Botanical Society Journal. 52 2021: Tupeia antarctica found; indigenous host plants of NZ's endemic Lepidoptera; copper butterflies & Muehlenbeckia; NZ's rarest liverwort found & lost again in Hornby; two new aquatic moss records for Christchurch; Coprosma wallii—upper Waimakariri valley; Coprosma intertexta; flora—Island Hill Station; Harris Scientific Reserve, Ashburton; Banks Peninsula Conservation Trust 20th Anniversary; nassella tussock / Nassella trichotoma in Canterbury; focus on emerging pests & invasive organisms; ex-situ cultivation of threatened Canterbury calcicoles; Armstrong family & herbarium; CBS 67th Annual report.
  - info@canterburybotanicalsociety.org.nz http://canterburybotanicalsociety.org.nz
- Biosecurity Trail: Wellington Botanic Garden. A3 brochure.
   Wellington City Council via Plant & Food research.
- 6. Ōtari-Wilton's Bush Trust News and Views. 3/22: Walks programme; message from the Chair, Carol West; Ōtari update, Tim Park—manager; Board of Trustees; Eleanor Burton's drawings from Ōtari; seminars; Tāwhakapiripiri / Ōtari Visitor Centre opens; problem cats; storm photos; plant photos by Tom Belworthy & Phil Parnell; BotSoc

- summer camp photos by Megan Ireland; *Myosotis spathulata* by Eleanor Burton; membership application and donation forms. Sub: individual \$20, double/family \$30, corporate \$30. 03 0518 0205713 000.
- www.owbt.nz
- (a) Forest & Bird. 383, Autumn 2022: Climate change forcing alpine species to higher altitudes; CE Kevin Hague retires; DOC stewardship land; High Court gives coastal wetlands greater protection; Govt's climate plan; Nicola Toki—new CE of F&B; Te Kuha plateau mine proposal heads to Environment Court; F&B wins Cawthron award for freshwater campaign; Kopuatai Peat Dome, Waikato—a Ramsar wetland; Greater Wellington stops grazing in QE Park; Penny Nelson—DOC's new DG; restoring the Ruahine Range; protecting the whenua with indigenous knowledge; rewilding our rivers; Minister Kiri Allan anounces survey of F&B's membership; review of Wildlife Act 1952, Trade in Endangered Species Act 1989 & plan to update national park rules; Kevin Hackwell's decades of campaigns; Hauraki Gulf ecosystem; Whanganui Rver estuary—seagrass & fauna; Te Henga wetland; Eaves Bush, Orewa; greening grey suburbs; (b) Every wetland counts - He Puipuiaki Ia Rohe Kōreporepo: A national campaign to protect & restore Aotearoa NZ's wetlands for the climate, nature and community. Four page flyer.
  - www.forestandbird.org.nz/joinus, membership@forestandbird.org.nz
- Gorge Gazette. 4/22: Newsletter of Trelissick Park Group. Ngaio Gorge, Wellington.
  - https://www.facebook.com/TrelissickParkGroup http://www.trelissickpark.org.nz/
- 9. Southern Environmental Association. Autumn newsletter: New web site:
  - www.tawatawa.nz
- 10. Friends of Tawa Bush Reserves. 4/22 newsletter.
  - secretary@tawabush.org.nz
- 11. Baring Head News.
  - Paula Warren –pwarren58@yahoo.co.nz
- 12. Predator-Free NZ Trust
  - margaret@predatorfreenz.org
- 13. OMB-Free Wellington Defeating Old Man's Beard in Wellington, NZ. How to clear OMB.
  - ombfree.nz; omgmustgo@gmail.com
- 14. Conservation Volunteer Groups in Aro Valley & Kelburn, WN: A4 Map & names & contact details of 7 groups.



Pistillate flowers of Coprosma wallii. Photo: Jeremy Rolfe.

## **SUBMISSIONS MADE**

#### 18 March 2022

## Stewardship Land Policy Team, Department of Conservation Te Papa Atawhai

stewardshiplandpolicy@doc.govt.nz https://www.doc.govt.nz/stewardship-land-consultation.

#### **Background**

The Wellington Botanical Society was founded in 1939. We have about 200 members—a blend of amateur and professional botanists.

We advocate for the permanent protection of terrestrial indigenous ecosystems for their intrinsic value for:

- the protection of the indigenous biodiversity within them;
- their crucial role in soil conservation in and beyond them;
- the protection of water quality in and beyond them.

#### **Submission**

We understand that there are over 2.7 million hectares of stewardship land in Aotearoa, i.e., 9.7% of the country's total land area. Stewardship lands comprise about 30% of the land managed by Te Papa Atawhai.

We welcome the Government's May 2021 announcement of their plans to speed up the stewardship land reclassification programme by establishing two national panels to draft legislative amendments to ensure that the process is fit-for-purpose.

We note that:

- extensive tracts of stewardship land are contiguous with national parks, forest parks, scientific reserves and scenic reserves managed by the Department of Conservation;
- other areas of stewardship land are contiguous with lands not managed by the Department of Conservation. We advocate for the retention of most\* stewardship lands of whatever type in public ownership to be managed by the Department of Conservation and appropriately funded by the Government of the day through each annual Budget.
- \* Where stewardship lands may be subject to claims by hapū and iwi under the Treaty settlement process, we would advocate for co-management of the lands by hapū, iwi and Te Papa Atawhai, appropriately funded by the Government of the day through each annual Budget.

#### Reasons for our advocacy

- the urgent need to halt the decline in indigenous biodiversity in all its forms and restore it by the sustained control of pest animals and pest plants throughout the DOC estate;
- the carbon sequestration ability of our publicly owned indigenous ecosystems, so vital in the global battle against the threat of catastrophic climate change, must be restored by halting the decline in indigenous biodiversity downstream:
- the loss of soils caused by heavy rain leading to flooding and erosion with inevitable adverse impacts on biodiversity downstream;
- the widespread decline in water quality in streams, rivers, tarns, lakes and aquifers resulting in loss of biodiversity in aquatic ecosystems;
- it has been estimated that about 75% of the water used for human consumption, agricultural, horticultural, commercial, recreation and other purposes comes from rain and mist on the conservation estate and flowing into streams and rivers flowing from it.

### Hearings of submissions

When hearings are held, we would like to speak in support of this submission.

The committee, Wellington Botanical Society

## Newsletter by e-mail?

When we did the ring-around for the Level 4 Zoom meeting, some people hadn't realised that they could receive the newsletter by e-mail. This is an option.

If you would like to receive your newsletter electronically, please contact Memberships Secretary, Helen White: helenamywhite@gmail.com

Ngā mihi, Kate Jordan, Secretary

## **ARTICLES**

### Wellington Botanical Society Grant to Graduate Students

Each year the Wellington Botanical Society provides small grants to assist post- graduate student in the VUW School of Biological Sciences.

These grants can be used for travel, materials and other costs related to research projects undertaken as part of the course of study. Grants to any one student will normally be not more than \$600.

Application should be made initially through your supervisor to Nicola Nelson by 6 September 2022.

Applications should be brief and to the point. (Say two A4 pages.) They should state:

- · Your name and e-mail address
- Your current education qualifications.
- The course of study you are undertaking.
- The nature and aim of your research project.
- The name of your supervisor for this project
- The budget for your project.
- The expenses that the grant is proposed to cover.

You will be advised of the results of your application by 6 October 2022.

Grants will be made through the Research Trust of Victoria University of Wellington.

Names of successful applicants will be published in the Society's newsletter.

It is a condition of the grant that you make a short presentation to the Society on your project and / or provide a one-page summary on the nature and results from your project to be included in the Society's newsletter or bulletin.

## Jubilee Award 2022—Applications sought

The Wellington Botanical Society invites applications for an Award of up to \$2,600 to encourage and assist applicants to increase knowledge of New Zealand's indigenous flora, and to commemorate the Society's Jubilee in 1989.

#### Purpose of the award

The Award is open to anyone working in New Zealand. It will be granted for: fieldwork; artistic endeavour; publication; research; propagation or cultivation of NZ native plants for educational purposes and / or other studies which promote the better understanding of NZ's indigenous flora and vegetation. The interpretation of these conditions will be flexible, except that the main criterion will be the furtherance of knowledge or promotion of the intrinsic value of NZ's indigenous flora and vegetation. The Award may be used to defray costs such as travel, accommodation, materials or publication.

#### **Applications for the Award**

Applications should be made in typescript to: Secretary, Wellington Botanical Society, PO Box 10 412, Wellington 6140, or by e-mail to: *esmeraldadoris93@gmail.com*, by **6 September 2022**.

#### The small print

- 1. Grants will normally be to post-graduate students. Consideration may be given to applications by undergraduates where the supervisor considers that there is a special case to be made because the nature of the project is similar to that undertaken by graduate students.
- 2. Priority will be given to projects involving native New Zealand vascular plants and cryptogams. Consideration may be given to those projects involving other vegetation. With the anticipated competition and limited funds it is unlikely that applications for projects involving algae, fungi and coral would be successful.
- 3. The primary purpose of the grant is to cover field expenses—transport and accommodation but not rations. Financial assistance towards the cost of chemicals and chemical and DNA analysis will be entertained. The Society is reluctant to fund capital items but will consider applications for these.
- 4. Applications for grants made after the closing date may be entertained if the Society has not already allocated the funds available for the Student Grant. Priority will be given to applications received before the close-off date.
- 5. The funds available are limited and priority will be given to those applications and those expenditures that agree with the main criteria set out above and are most in line with the aims of the Wellington Botanical Society.

There is no prescribed application form, but the following must be provided:

- 1. the applicant's name,
- 2. postal address, telephone number and e-mail address.
- 3. any relevant position held
- 4. a maximum one-page summary statement of the applicant's accomplishments in the field of botany
- 5. an outline and timetable for the proposed project for which the Award is sought
- 6. a proposed budget for the project

#### **Selection**

The Award will be made to one or more applicants selected by a subcommittee nominated by the general committee of Wellington Botanical Society. Award(s) will be made and applicants informed of the results in writing, by 6 October 2022.

Successful applicants will be required to provide, at an agreed time, a short report on what they have achieved, and an account of their expenditure of Award funds. The names of the Award recipients, the value of the Award(s), and a synopsis of the project(s) will be published in the Annual Report of Wellington Botanical Society.

## **QEII National Trust update**

Kathryn Longstaff – Team Leader Land Protection QEII National Trust is an independent charitable trust that partners with private landowners to protect natural and cultural heritage sites on their land. Landowners retain ownership of their property and special areas are protected with legally binding agreements called covenants, which remain on the land title forever.

As of March 2022, QEII has a total of 4,942 registered covenants protecting 180,703 hectares throughout New Zealand. There are 359 Open Space Covenants registered to protect 6,185 hectares in the Greater Wellington region. The largest registered covenant in the Greater Wellington region is 824 hectares and the average size is 17.2 hectares.

#### **QEII Regional Representative update**

The Trust has had recent changes to our regional representative team, including a new regional representative for the Tararua region.

Our longstanding rep, Bill Wallace, finished his 15-year stint as the regional representative for Tararua in late 2021. Bill will be shifting to Napier and will stay with the Trust on a part-time basis, working with the properties that have been gifted to QEII over the years, such as Taupō Swamp, Plimmerton and Awapikopiko Reserve, Kumeroa.

Our new regional representative for Tararua is Lou Hagger. Lou is originally from Wairarapa and after a stint in Wellington she relocated to Mangatainoka in 2020. She has completed an NZ Certificate in Conservation with DOC and UCOL in conjunction with Rangitāne at Pūkaha National Wildlife Centre.

Lou is part of our team of 28 regional representatives across the country and one of three in the lower North Island, joining Trevor Thompson, regional representative

# DOC Wellington Visitor Centre

Te Pae Manuhiri, Te Rohe ō Te Whanganui ä Tara

Conservation House, 18–32 Manners St

- Track, hut, conservation information
- · Kapiti Island visitor permits
- Hut tickets, backcountry hut passes
- Hunting permits

Open: Mon-Fri 9 a.m. - 5.00 p.m.
Sat 10 a.m. - 3.30 p.m.
Tel: 04 384 7770 Fax: 04 384 7773
E-mail: wellingtonvc@doc.govt.nz
Web: www.doc.govt.nz

New Zealand Government



for Wellington and Wairarapa and John Williamson, regional representative for Kāpiti and Manawatu.

If you have any queries relating to a QEII covenant or a potential site for a covenant, please feel free to contact your local representative. The contact details for our three lower North Island reps are below, however the details for all our reps can be found on our website.

> Lou Hagger, Tararua Phone: 022 477 3833 Email: LHagger@qeii.org.nz

Trevor Thompson, Wellington and Wairarapa Phone: 027 333 3243 Email: TThompson@qeii.org.nz

> John Williamson, Kāpiti and Manawatū Phone: 06 328 6851 Email: JWilliamson@qeii.org.nz

### **Percy Scenic Reserve News**

It is the end of another long dry summer—one of several in a row. As usual many plants suffered and we have lost a fair few again, with the veronicas always being the first to start struggling. We may have to consider planting more drought-resistant species.

In conjunction with Ōtari-Wilton's Bush, we have separated our *Celmisia* sp. "Mangaweka" from the rest of our celmisias and collected the seed to propagate more plants and build up a stock. We also swapped one of ours with one of Ōtari's to cross pollinate ours with theirs.

We have moved more of the alpines into the new climate-controlled houses. Many of them struggle initially, due to the change of environment. It is much cooler in the new houses, but they eventually pick up and produce new foliage, which generally looks much healthier than the old foliage.

The main problem with the alpines is the mealy bug, which we control with Confidor. The plants which are more vulnerable to fungal disease have now been moved into the new climate-controlled houses. They have faired much better there, with few problems this year. Several of our *Myosotis* species, including *M. colensoi* and two as-yet unidentified species have flowered over the summer for the first time since I have been here—about eight years. Presumably this is caused by the cooler conditions.

I have managed to get all of my cuttings and seedlings potted up this year along with potting on last year's potted-up propagation, some of which has been sitting there for over a year. These included *Veronica cuppressoides*, *V. hulkeana* subsp. *hulkeana* and *Acaena caesiglauca*.

We will start to sow several seed batches soon, including our recently collected *Celmisia* "Mangaweka". Along with these will be *Helichrysum coralloides*, *Pachystegia rufa* and *Ceodes brunoniana*. Also we'll sow any seed we collected on our seed-collecting trip to the Remarkables 25–27 March.

Cliff Keilty, Gardener

## Ōtari Update

If you haven't yet popped in to see our refreshed Visitor Centre, Tāne Whakapiripiri, it is worth a visit. The space is much lighter and brighter, with a digital display providing much of the detail. The project was guided by Terese McLeod and Holden Hohaia as Taranaki Whanui. The Visitor Centre is named after Tāne, the god of the forest, who had many names. One of those was Tāne Whakapiripiri which means 'Tāne who draws people together'.

The Lions Ōtari Plant Conservation Laboratory has been relocated from the Portacom and is now almost fully set up in the Curator's House. Big thanks are due to Karin van der Walt and our supporters who made this happen, in particular, Darea Sherratt for her donation, Denton Trust and Deane Endowment Trust who have all been very generous. We are pleased to have received a grant from the Lotteries Environment and Heritage Fund to allow us to start a project looking to store seed of Wellington's threatened native orchids and their fungal partners. We are now relocating our library to the Portacom and converting the old lawn next to the Curator's house into a nursery space for volunteers and a growing-on area as we are very limited for space.

We have been investigating a couple of changes to our track network, and are hoping to start construction on an improved route to Moko, the 800-year-old rimu in the next few months. We have found a route through the forest that will make it accessible to more visitors (a gentle gradient with fewer steps!) while minimising the effects of construction. Hopefully more visitors will be able to make the trip following the rerouting. The upper Yellow Trail remains closed due to a slip on a very steep section of soft ground.

Another reminder that members are welcome to take FREE mulch from the Northern Carpark. Staff will cordon off the pile with rope if the pile is reduced too much. So if there is no rope barrier you are welcome to take mulch for your restoration project and home garden.

Please also keep an eye out for old man's beard at your place or in neighbouring reserves. If you do spot OMB, please take a photo and add an observation to iNaturalist. A free app is available to assist with this. If you are confident it is OMB, make an effort to remove it if you are able to. The seeds are easily blown about on

the wind—we often remove seedlings from Ōtari. If we all work together to keep weeds like OMB under control it makes all the efforts more sustainable in the long term. More information at www.ombfree.nz. Also members should get involved with the City Nature Challenge at the end of April and keep an eye out for the events we are planning for Matariki – 22 June onwards.

Ma te wa, Tim Park Kaiwhakahaere Ōtari | Manager Ōtari Native Botanic Garden and Wilton's Bush Reserve Ngā Māra o Poneke | Wellington Gardens Papa Tākaro Hākinakina | Parks, Sport and Recreation Mi Heke Ki Poneke | Wellington City Council 0212479739 Tim.Park@wcc.govt.nz Wellington.govt.nz

#### New members

We are keen to welcome more people to the delights of botany via BotSoc. If you know someone who might enjoy our field trips, newsletters, bulletin and informative meetings, please encourage them to join. Give them our web site address, then tell them that there is a membership application form at the back of our newsletter.

Helen White, Membership Secretary



Old man's beard. Photo: Jeremy Rolfe.

#### **Letters to the Editor**

We would welcome your comments on any aspect of BotSoc's activities:

- places you would like to visit on field trips
- topics you would like to have covered in evening meetings
- topics you would like covered in BotSoc's Bulletin and Newsletter
- other matters of concern or interest to you. Thank you

The Committee



## TRIP REPORTS

## Summer Camp 2022: Aongatete<sup>1</sup>, Bay of Plenty

We were at Aongatete Outdoor Education Centre from 22-29 January. Kate's Kabs from Katikati picked up seven people from Airport—the other Tauranga thirteen arrived by car. Because of Covid-19 we considered ourselves to be in a bubble at the camp. The manager and the caterers came in, very occasionally, in masks and attempted social distancing. This worked at the camp but not on the walks where almost everyone out walking were passing one another on narrow tracks, but were not masked.

The first and last days were travel days and we went on field trips in between, Sunday to Friday. We had enough vehicles to car-pool to the field trips and no need of a rental van. Despite a summer drought we had heavy rain, mainly at night, over 1-2 days. Gael Donaghy and Graeme Jane juggled the programme and we had six days of field trips, almost without getting our feet wet. We saw a wide variety of Bay of Plenty native plant communities. As coastal Bay of Plenty is heavily under horticulture, mainly kiwi fruit and avocadoes, we had some distance to travel most days. Our longest trip was 75 minutes to Te Aroha on the other side of the Kaimai Range. The AOEC is ca.10 km inland from SH2 on a sealed road. We were gobsmacked by the heavy trucks and almost endless road works on the roads around Tauranga. The road works are intended to make the roads safer. Yeah right! Three days we went north-two days we went south—on the various field trips and one drizzly day we explored the Lower Kaimai bush tracks around the lodge. These are well used by the public, who have a 30 min walk through the bush to reach the swimming holes in the Aongatete River. This river supplies the lodge with water which was beautiful.

The camp was behind a locked gate requiring a code to enter. Surrounded by mature bush it was very private and pleasant. We spent most of our time there under an awning outside the kitchen and dining block. AOEC has a live-in manager, Karen Tobich. It is very well appointed and run. It is used mainly by school groups. It has an activity centre. It can be hired privately too. Able to accommodate 100, our group of twenty was lightly sprinkled through the dorms / pods and no top bunks were needed. Four of the group camped on the nearby camping lawn. Regulars to our summer camps often commented how easy the work load was with twenty participants, unlike other years where numbers are over thirty. Covid-19 had reduced the numbers of people willing to take a chance on travelling at this time.

Margaret Herbert stayed back most days and looked after camp matters, which contributed a lot to the smooth running of the camp. We locked the camp when we were all away, as the public on tracks in the surrounding bush occasionally stray into the lodge grounds.

The lodge has a septic-tank system - we were supplied with cleaning products that didn't adversely affect it. The Marshall boiler heated water for the camp and disposed of our burnable rubbish. Food scraps went to a local farmer. Chris Horne and Tom Mayo kept the recycling, compostables and rubbish collection in order during our stay. We thank those who took tip-rubbish, plastics and glass away in their cars at the end of the camp. The local recycling depot in Katikati was not open until after we left.

We would recommend Aongatete to other groups, certainly under the current management.

Our evening meals were supplied by a local woman, Janene Hockly,

who minimised her contactless delivery by dropping off two dinners at a time. We merely had to serve the food and clean up after dinner. At \$25 per head it was very good value. There was no rush to cut field trips short to get home to cook dinner. Much of the food was served cold and was perfect for those hot days and nights. The lodge kitchen was able to handle meals for 100, so with our group being only twenty people there was lots of equipment and fridge space etc. Those with dietary requirements were well catered for.

Because the lodge is in a bush setting there were plenty of birds and insects, especially pūriri moths. On 26 January those having a rest day at the lodge witnessed a sparrow bash a pūriri moth to death, only to have it stolen by a blackbird. At 3 p.m. that day a massive downpour with thunder soaked the camp, but not those on the field trip who were hot and dry on the other side of the Kaimai Range.

Basil Graeme came one night to talk about his restoration project in the surrounding bush. He described decades of effort to get the Kaimai Range recognised as an important area of forest and worthy of protection. It is the biggest area of native bush close to half of NZ's population, comprising BOP, Waikato and Auckland, which is only a couple of hours drive away.

Gael and Graeme, Tauranga residents, had planned our field trips and came with us every day. Graeme took off with the fast set while Gael accompanied the slow gang. Ann Graeme came with us on most days. It was as if we had three professional guides - they were so familiar with the BOP plants.

Participants: Ellen Blake, Robyn Ching, Barbara Clark, Michele Dickson, Julia Fraser, Ken Fraser, Barbara Hammonds, Shelley Heiss-Dunlop, Margaret Herbert,

Aongatete might mean clouds of tete / grey teal as once upon a time there were clouds of them flying in the sky over the Kaimai Range. The literal translation is 'cloud' (Ao) 'the' (nga—plural) 'grey teal' (tete). With thanks to Huia via Ann Graham.

Richard Herbert, Chris Horne, Stuart Hudson, Megan Ireland, Brenda Johnston, Kate Jordan, Kair Lippiat, Tom Mayo, Julia Stace, Liz Stockman, Karen Whitton, Stephen Whitton.

**Local daily guides:** Gael Donaghy, Graeme Jane, Ann Graeme.

**Leaders:** Julia Stace and Kate Jordan. Supported by Margaret Herbert and all the helpful attendees.

**Brochure:** *Kaimai to coast. Walks and tramps.* Kaimai Mamaku Conservation Park and surrounding area. A6 50 p, Department of Conservation.

#### 23.1.2022 Rapurapu Kauri Track

Barbara Hammonds

Map: NZTopo BE36 Lower Kaimai Fresh and keen, we met Gael and Graeme at the track's car park for our first field trip of the camp. After safely parking the cars off busy SH 29 and an introductory talk from Gael, we set off on a hot, sunny day to see the southernmost stand of large kauri in the Kaimai Range, in our first encounter with the forests of this part of the country.

We reached the track proper after walking about 1 km beyond a minimalist kauri-dieback bootsterilising station and blackberry thickets. Some of us were fortified by foraged blackberries (*Rubus fruticosus* agg.) and Japanese wineberries (*Rubus phoenicolasius*), especially welcome on the return journey.



Stephen operating the sprayer, Gael with boot raised, Chris observing. Photo: Barbara Hammonds.

Once in the forest, we were surprised by how many plants were wilting, and later heard this was the 3rd year of drought in a row, so it was no wonder. Asplenium bulbiferum, especially plants perched above ground level, and saplings of Coprosma autumnalis seemed the most commonly affected species. Despite the impacts of the drought, the overall impression was of a magnificent forest. We enjoyed some great views from the banks of the meandering Rapurapu Stream. The tawa / Beilschmiedia tawa were giants, with twisting lianes of kareao Ripogonum scandens snaking their way into the lofty heights. A cathedral of trees!

*Beilschmiedia tawa*. Photo: Barbara Hammonds.

The meandering stream also meant river crossings—seven in all. Some who wanted to keep dry boots walked barefoot, a treat on the mostly soft track surfaces. The reward for all those stream crossings, and a final scramble up and around a fallen tawa was the stand of three beautiful mature kauri growing on a steep bank above the river. As with the other kauri we saw during the trip, the final access was on an elevated boardwalk and platform, to protect the trees from kauri dieback.



Michele reads an information panel about kauri. Photo: Barbara Hammonds.

Some notable species not seen around the Wellington region that we first met today were *Blechnum fraseri*, a highlight in the later part of the track, *Litsea calicaris* / mangeao and *Ixerba brexioides* / tawari. Mangeao's large, fairly pale, shiny, highly veined and wavyedged leaves are distinctive. It was a novelty seeing *Blechnum chambersii* growing on flat ground instead of on banks, the habitat I'm more used to.



Litsea calicaris / mangeao. Photo: Barbara Hammonds.

Many of us were refreshed by a dip in the swimming hole at the fifth crossing. It was deep and cool, with an inviting sandy bottom, and, along with the kauri stand, appeared to be a destination for many people we saw on the track.

We saw almost no browse and the track was relatively free of bad weeds, but sadly, *Selaginella kraussiana* / African clubmoss carpeted the track edges near the sixth crossing. It would be great if this patch could be dealt with so it doesn't become a pervasive trackedge weed as seen on some other walks this trip.



Gael, Chris, Liz. Photo: Barbara Hammonds.

Additions to the list: Quintinia serrata, Selaginella kraussiana, Austroderia fulvida, Carex dissita, Dianella nigra, Senecio bipinnatisectus, Plantago lanceolata, Solanum chenopodioides.

Birds: toutouwai / North Island robin, kōtare / kingfisher, tauhou / waxeye.

#### 24.1.22: Orokawa Beach, Waihi

Tom Mayo

Map: NZTopo50 BC36 Katikati We met Gael & Graeme at Waihi Beach in the rain, then went up to the old reservoir off Pacific Rd. Climbing along a 4WD track for the first few minutes we then climbed an unmarked track following the ridgeline north to a height of ca. 160 m before dropping down a sandy track to Orokawa Beach and following the DOC track around the headland back to our Waihi beach starting point.

The roughly 4-km loop took us through northern coastal forest ending in spectacular stands of *Metrosideros excelsa* / pōhutukawa and closely spaced *Rhopalostylis* 

Julia at Orokawa Beach. Photo: Barbara Hammonds.

sapida / nīkau down to Orokawa Beach. On the initial climb along the ridgeline we saw several slips which had been colonised by *Cyathea dealbata* / ponga. Highlights of the climb included seeing *Gahnia xanthocarpa* along the track edges in large clumps, *Pomaderris kumerahou* / kūmarahou, *P. amoena* and the occasional *Cordyline pumilio*.

The included canopy Corynocarpus laevigatus / karaka, Vitex lucens / pūriri, Pittosporum crassifolium / karo, Litsea calcicaris / mangeao and *Olearia rani* / heketara. The first three species are trees which were good to see outside the Wellington Region in their native ecosystems. At about 150 m along the ridge there was a turn off west that we ventured down-you could see a wide bench and terrace with earthern palisade / bund. Retracing our steps we then went north again and met others in our group and stopped to compare notes.

The north-facing slopes we descended to get to Orokawa Beach and our lunch spot were sandy—it was a quick, steep route and the change to bush dominated by Rhapolostylis sapida / nīkau happened quite suddenly. On our way down we had encountered Earina autunmalis / raupeka and Bulbophyllum pygmaeum. Coming out onto the beach surrounded by a backdrop of Metrosideros excelsa / pōhutukawa we noted Avicennia marina subsp. australasica mānawa / mangrove seed trying to root in the sand.

From Orokawa Beach we walked around the marked DOC coastal track seeing some large *Vitex lucens* / pūriri along the way. We were on the lookout for *Pepperomia urvillieana* and *Pimelea* sp. which we found thanks to looking at iNaturalist observations from Jo Dillon.

Other species: Carmichaelia australis, Coriaria arborea, Entelea arborecens, Gaultheria antipoda, Helichrysum lanceolatum, Knightia excelsa, Leucopogon fasciculatus.

#### 25.1.22: Aongatete Lodge forest

Brenda Johnston

**Map**: NZTopo50 BD36 Lower Kaimai

Near the lodge is a fine example of subtropical broadleaf forest. It is being protected by a sustained programme of intensive pest control conducted by a local restoration group<sup>2</sup>. Its proximity enabled us to have somewhere to botanise on a wet day. It had rained heavily the previous night and the forecast was not good. Fortunately the expected showers arrived late so small groups had plenty of time to explore different parts of the forest. We were helped by local experts Dr Graeme Jane and Gael Donaghy who spent several hours with us.

Since Aongatete is an environmental education centre the site has high quality interpretation panels and plant labels on the Nature Walk. We found two damaged interactive signs and returned them to the centre for repair. Members of the group whom I spoke to were impressed by both the large number of tall trees and the variety of seedlings. This reinforces the value of the intensive pest control done by the local restoration group.

The normally wet climate provides good habitat for a large variety of fern species. This gave us plenty of opportunity to revise and consolidate our fern knowledge. Some people were taken to see a fine stand of *Ptisana salicina* / para / king fern.

Gail and Graeme had given us a long list of dicotyledonous trees and shrubs and people enjoyed being reacquainted with the northern flora. Examples of these included Coprosma arborea and C. spathulata subsp. *spathulata*, Metrosideros excelsa, Olearia furfuracea and Phyllocladus trichomanoides Seeing tanekaha). **Brachyglottis** kirkii var. kirkii / kohurangi / Kirk's daisy growing on the ground was proof of the benefits of good pest control on the vegetation. We saw that many species of familiar trees had much larger leaves than those back home.

The healthy state of the forest was reinforced by the presence of a wide range of both dicotyledonous and monocotyledonous lianes of different ages. We saw flowers of Earina mucronata / peka a waka / bamboo orchid and Dendrobium cunninghamii / winika. It never occurred to us to look for fallen trees to identify which of the three Astelia species we were looking at. Isn't cranking your neck and trying to peer up into the canopy more satisfying? The intense blue colour of Dianella nigra berries compared with those at home was amazing. We added to the already long species list Hymenophyllum demissum / drooping filmy fern / irirangi / piripiri and Corybas oblongus / spider orchid.

In a lesson on ecosystem recovery the forest road bed used by bulldozers during the Kaimai Tunnel construction in the 1970s is being colonised by *Blechnum novaezelandiae* / kiokio, *Diploblechnum fraseri* /maukurangi and *Vitex lucens* / pūriri.

We enjoyed seeing the *Arachnocampa luminosa* / titiwai / glow-worms on a bank near the camp. Another treat was the presence of a wonderful swimming hole which is also enjoyed by the local community.

#### 26.1.2022: Te Aroha – Domain Track to summit

Iulia Stace

Map: NZTopo50 BC35 Paeroa We drove to Te Aroha then split into two groups. The fast ones summited on the Mountain Track with Graeme Jane, then returned by the road that services the Broadcast Tower on the summit. The tower has been there since the 1960s. The track is a steep 3.9 km to the summit. Afterwards they were picked up on Tui Rd and returned to the all-day car park near Te Aroha Domain. Both tracks started at the Mokena Geyser in Te Aroha Domain. The slower group did a circuit on the Domain Track with Gael Donaghy, returning on the Horseman and Lipsey tracks to descend eventually a few streets

away and walk back to the cars, where cafés were on top of people's minds. Hot weather, hot walk and a 75-minute drive back to Aongatete.

Of note on the walk to the 952 m summit were beech, goblin forest and few other people. There are red beech and silver beech near the top, at the northern limit of both species. Libocedrus bidwillii, Dracophyllum traversii and some lovely Cordyline indivisa are also there. That group saw Coprosma dodonaeifolia which has a limited distribution: Great and Little Barrier Islands, Coromandel Peninsula and south to Mt Te Aroha. Gael notes that it is interesting that on Te Aroha some plants are at their northern limit and others are at their southern limit. The little alpine herb, Luzuriaga parviflora, was also there although herbs were scarce in the dry conditions. We were told that this was the third summer drought in a row. Occasional plants such as Carex spinirostris, commonly known as coastal sedge, and Lobelia anceps, remind us that the river is tidal up to Te Aroha and some coastal plants survive up here.

Of note on the lower walk Whakapipi Lookout were contiguous gullies huge parataniwha / Elatostema rugosum where we sat on a bridge across some of it and marvelled at the extent of the patch. We marvelled too at swathes of Lycopodium deuterodensum and smelt wintergreen at the base of the fronds of Asplenium lamprophyllum.



Parataniwha / *Elatostema rugosum*. Domain Track Mt Te Aroha 26 January 2022 Photo: Julia Stace.

<sup>2</sup> Brochures: Aongatete Forest Project A6, 2 p. Spot the species A4, 2 p. www.aongateteforest.org.



BotSoccers marvelling at the huge patch of *Lycopodium deuterodensum* / puakarimu on the track beyond Whakapipi Lookout. Photo: Julia Stace.

At the Whakapipi Lookout seat there is a good view over the Hauraki Plains. Bald Spur that we walked up was burnt off 70-80 years ago. Pines and gums were scattered through the lower slopes and twice we smelled peppermint gum along the way.



*Lycopodium deuterodensum /* puakarimu on the track beyond Whakapipi Lookout. Photo: Julia Stace.

The Kaimai-Mamaku Conservation Park begins just past the lookout. Most of the local walkers turn back at the lookout but we carried on along the Horseman Track then downwards onto Lipsey Track. There was a mine portal on the way down—the Mt Morgan gold mine—and it seems that horses really were used up this steep

slope in conjunction with mining activities. The mountain is under the management of the Matamata-Piako District Council and the tracks, signage and amenities are quite different from those in the DOC estate. We were intrigued by the Warren Geraghty steps, made of half-rounds and #8 wire, which are apparently created off site, then rolled down a slope needing steps and bedding themselves in over time. The tracks were much narrower than we are used to and being on steep slopes there was potential for risk but we all navigated the terrain successfully.



Warren Geraghty steps on the Lipsey track on Mt Te Aroha. These are constructed off site from half rounds and #8 wire and then rolled up for carrying to slopes to where they are needed. Over time they embed themselves into the slope and have a long life as steps. Warren Geraghty was a forester who later in life worked for DOC in this area for many years. Photo: Julia Stace.

Below Kaimai-Mamuku Conservation Park the area was very weedy, with plenty of cotoneaster, ginger, Mexican daisy, cherry laurel, privet, euonymus and worse still—Selaginella kraussiana / African club-moss which was continuous along the tracks.

We heard a young goat calling below Horseman's Track where we saw lots of pampas grass beside the track. Ann Graeme has reported these matters to DOC.

**Fast group:** Ellen Blake, Richard Herbert, Graeme Jane, Tom Mayo and Stephen Whitton.

With Gael: Robyn Ching, Barbara Clark, Michele Dickson, Julia Fraser, Ken Fraser, Barbara Hammonds, Shelley Heiss-Dunlop, Chris Horne, Kair Lippiatt, Stuart Hudson, Megan Ireland, Brenda Johnston, Julia Stace, Liz Stockman.

**Bird list:** Kererū, korimako, miromiro, NI tomtit, pīwakawaka, tūī, waxeye / tauhou

#### 27.1.2022: McLaren Falls Park

Michele Dickson

**Map**: NZTopo50 BD36 Lower Kaimai

Brochure: McLaren Falls Park – Tauranga's hidden jewel. info@ tauranga.govt.nz www.tauranga. govt.nz

We botanised along the waterfall track, a loop beside a small tributary flowing into Lake McLaren at Cherry Bay. The lake was formed on the Mangapapa River as part of the Hydro-electric Generation scheme. Part of the park was previously an arboretum. We started at the carpark, being almost immediately drawn to the stream bank to view a large area covered almost entirely by bright green Deparia petersenii subsp. congrua. Then our attention diverted to a large Homolanthus populifolius / Queensland poplar tree, spread originally from an ornamental planting. Vitex lucens / pūriri towered over us as we entered the pūriri / kohekoke mixed forest, although we saw little more pūriri. The dominant emergent trees were pukatea and tawa, the whole splendid, lush and cool forest being draped with Freycinetia banksii / kiekie, Ripogonum scandens /

supplejack / kareao and other climbers. We estimated a Passiflora tetrandra / NZ passionflower vine / kohia to be at least 20 m tall. We easily ticked off about thirty fern species; additions included Blechnum membranaceum, Cyathea cunninghamii and Adiantum fulvum. It was also useful to see the Deparia petersenii subsp. congrua and Diplazium australe growing side by side for comparison. We were most impressed by the large size of many species compared with our home region - we marvelled at the 1m-long frond of a Lastreopsis hispida / pongaweka.

Near the waterfall Fuchsia excorticata / kōtukutuku grew on the banks, and unfortunately, the weedy fern, Pteris cretica / Cretan brake. At various places on the track the noticeable weeds included Tradescantia fluminensis / wandering willie and Selaginella kraussiana / African clubmoss. In a soft bank on the west side of the stream, above the track, we saw the burrows of kingfishers / kōtare. Birds seen or heard during the day were: grey warbler / riroriro, NI tomtit / miromiro, tūī, NI fantail / pīwakawaka, kingfisher / kōtare, paradise shelduck / pūtangitangi.

Beside the lunch spot at Cherry Bay, Graeme and Gael took us to see a natural stand of *Syzygium maire* / swamp maire, some very large. We discussed how to identify them amongst the other trees when viewed from a distance.

The chosen loop for afternoon, a little drive further in, started in mixed forest at the south end of the park. After a short climb up large steps we were soon amongst quite dominant Phyllocladus trichomanoides tanekaha and Toronia toru / toru on a rather dry plateau. Below our feet lay a colourful carpet of bright green, brown, yellow and red fallen leaves of these two species. The understorey included Astelia trinerva, Leucopogon fasciculatus / mingimingi, Olearia rani / heketara, Coprosma rhamnoides, Prumnopitys ferruginea / miro seedlings, Gahnia setifolia and the weedy Miscanthus nepalensis. As we

dropped down from this plateau to the Mangapapa reservoir/dam top we saw Rhabdothamnus solandri / taurepo in flower, Cordyline pumilio, Mida salicifolia, a large Dacrydium cupressinum / rimu, *Ixerba brexioides /* tawari displaying flowers and fruits and Drymoanthus adversus. At the fence overlooking the dam our guides led us to a small tree of *Leionema nudum* / mairehau, this species at the south-east boundary of its range. A leaf was passed to all for close inspection and enjoyment of the fragrance. Close by, a Metrosiderous perforata / white rātā clump entirely splashed with white flower clusters gave a most eye-catching display. One or two Dacrycarpus dacrydioides / kahikatea stood high above. We returned to the cars along the dam road, seeing Gleichenia dicarpa up the bank and much Pteris macilenta / sweet brake in other places.



 ${\it Rhabdothamnus\ solandri\ /\ } taure po.\ Photo: \\ {\it Jeremy\ Rolfe}.$ 

#### 28.1.2022: Waitawheta River

Kate Jordan

Map: NZTopo50 BC35 Paeroa The sixth and final trip of Summer Camp started at the Dickey Flat DOC Campsite in the Kaimai Range. The camp was very busy, but the track we took was quiet. The first part of the track passed through private paddocks with large mataī / Prumnopitys taxifolia and kahikatea / Dacrycarpus dacrydioides. After

a kauri dieback boot-sterilising station, we entered forest and worked our way along the true right bank of the Waitawheta River.

Highlights along the track included:

- A smorgasbord of ferns, such as *Adiantum diaphanum*, *Lastreopsis hispida*, *Trichomanes venosum* and *T. endlicherianum*;
- Taurepo / *Rhabdothamnus solandri* with many flowers;
- A few plants of tūrepo / Streblus heterophyllus and kohurangi / Brachyglottis kirkii var. kirkii;
- Neinei / *Dracophyllum latifolium* with many inflorescences in bud;
- *Drymoanthus adversus*—which we saw on five out of the six days of the camp.

The brightest highlight was the many medium and large kauri along the track and the large stands of regenerating kauri across the river. Scattered throughout we saw tanekaha / Phyllocladus trichomanoides and toru / Toronia toru. Stairs and broadwalks had been constructed to keep people off the roots of the kauri. There were also stretches of gravel.

Less enjoyable were the many species and numbers of weeds. Montbretia / Crocosmia ×crocosmiiflora, Selaginella kraussiana and Tradescantia fluminensis, were prevalent, with inkweed, ragwort, climbing dock and raspberry also present.

The speedier group of BotSoccers made it to the river crossing, ca. 3 km upstream from the campground, with stops for morning tea and lunch. At the crossing we turned around and headed back down the track, collecting other BotSoccers as we went.

We heard or saw pūtangitangi, kererū, kōtare, pīwaiwaka, riroriro, tūī, tauhou, eastern rosella and spur-wing plovers. We also saw interesting butterflies and heard many cicadas / kihikihi. Additions to the plant list included māmāngi / Coprosma arborea, C. spathulata and kohekohe / Dysoxylum spectabile.

#### 27.1.2022 Plant collection— McLaren Falls Park

Megan Ireland Pouarataki Ōtari | Team Leader Ōtari Native Botanic Garden and Wilton's Bush Reserve M 021 576 487

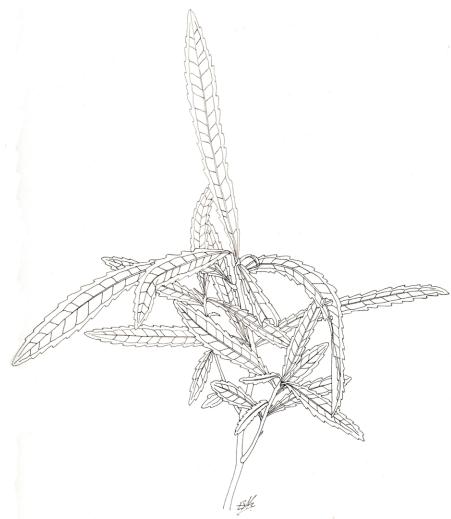
megan.ireland@wcc.govt.nz Wellington.govt.nz

McLaren Falls Park is owned by Tauranga City Council. Before the trip we contacted the Senior Park Ranger who was most helpful. After a few calls and e-mails we were given permission for low-impact plant collection for cuttings / seed to grow on in our collections at Ōtari Native Botanic Garden. We were excited about this opportunity as a collection hadn't been done in that area for a while. We created our wish list easily—it contained plants such as *Podocarpus laetus* and *Ixerba brexioides*.

Some of the plants on our wish list we had grown at Ōtari previously but no longer—some we have never had and others e.g., *Podocarpus laetus* we had but the plant displays a lateral growing pattern. This is unusual for this plant and suggests the plant was likely taken from cuttings on a lateral stem causing the growth habit. We sought a cutting from an apical shoot tip, not an easy task for a 20 m tall tree.

On the day I was able to collect almost everything on our wish list including *P. laetus* thanks to a smallish tree on a slope. I would also like to thank everyone on the day for pointing out plants and helping me to reach plants!

The cuttings are now all on our cuttings' bench with under-heating



Tawari / Ixerba brexioides. Illustration: Eleanor Burton.

and an automated misting unit and are growing well. When they are big enough they will be transplanted into the garden.

Where possible, our plants at Ōtari are wild collected with records of by whom, when and where they were collected. These date back to 1927 *Agathis australis* / kauri.

It is important for us to have known provenance for our plants for two reasons. One is for research, for example the same species from two different areas might have different growth habits; and another is conservation. If a plant is extinct or struggling in the wild and we have a known provenanced plant from that area plants from the Garden can be used to conserve and boost wild populations.

BotSoc summer camp is a great opportunity for plant collection but more importantly getting out in the specific area and learning from the experts and like-minded people!

Megan Ireland



form unsigned.

## Membership application

(For new members, **NOT** for renewal of existing membership)

I wish to join the Society				
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If you do not agree, it would assist processing if you could please put a line through paragraphs above and return the