

Wellington Botanical Society

Te Rōpū Manāki i Ngā Tamariki a Tāne,
o Te Whanganui a Tara



NEWSLETTER

September 2021

Previous issue: April 2021

ISSN 1171-9982

From the President

On Monday 16 August we were treated to a fantastic Tony Druce Memorial Lecture from Dr Beverly Clarkson of Manaaki Whenua – Landcare Research, Hamilton, on her love of peat bogs.

The next day we went into a Level 4 lockdown to counter the Delta variant of Covid-19. We were indeed lucky to experience Beverly's lecture. Hopefully it will all be over for our next evening meeting on Monday 20 September – see the programme in this newsletter.

This newsletter includes a registration form for our Summer Camp based in the Bay of Plenty, home of many diverse ecosystems. The chosen lodge is the Aongatete Outdoor Education Centre, located in the hills behind Katikati. More information follows elsewhere in this newsletter.

Jon Terry

New members

We welcome the following to BotSoc: Sue Blaikie, Melanie Newfield, Roy Simons, Matt Ward.

Helen White, Membership Secretary

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 observation, anecdote, 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.

Wellington Botanical Society

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Annual subscription:	ordinary \$35; country \$30; student \$10; 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.

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.

DEADLINE FOR COPY FOR NEXT ISSUE – 20 November 2021

Articles may be edited for clarity and length

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 cell-phone 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, clipboard, map or park brochure, camera, binoculars, hand-lens, sun-block, sun-glasses, insect repellent, whistle, toilet paper.

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, about 50 m up it from Victoria University's Murphy Building Lecture Theatre MYLT101:

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: 01, 11, 21, 31, 41, 51 minutes past the hour from Salamanca Station

For further information ring Metlink, 0800 801-700.

NOTICES

Events

- 2nd Saturday each month, except January. **Ōtari-Wilton's Bush – Plant Care.** Meet: Te Marae o Tāne 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.
- 4-12 September. **Conservation Week.**
Department of Conservation web site www.doc.govt.nz

Submissions called for

- End of September. **VUW research.** User perceptions of wilderness in the Tararuas.
https://vuw.qualtrics.com/jfe/form/SV_0dLnkpI4sWaoT6m

Submissions Coordinator

If you would be interested in assuming this important role for BotSoc, please contact Kate Jordan, our secretary – wellingtonbotsocsecretary@gmail.com (027 899 0018 after hours). We thank Bev Abbott who has drafted our submissions over many years—she is standing down because she has other commitments. Bev has kindly offered to help to train you if you might be keen to do this vital work.

Kate Jordan, Secretary

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

Subscription renewal for the year 1 July 2021 – 30 June 2022

We wish to thank members for their support of the society. Your subscriptions contribute towards bringing speakers in to talk to us, the production of the newsletters and our Bi-annual Journal, *The Wellington Botanical Society Bulletin*. More recently this also pays for our Zoom subscription!

Subs are now due for the year 1 July 2021 – 30 June 2022. A renewal form, including details on how to pay accompanies this newsletter.

Chris Moore, Treasurer

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.

SEPTEMBER 2021 – JANUARY 2022

Saturday 4 September: Field Trip Kiriipiti Scientific Reserve, Old Hautere Road, Ōtaki
Postponed until Lockdown Level 1.

Monday 20 September: Evening meeting Native plant succession in woody weed stands in NZ
Speaker: Kate McAlpine, Science Advisor, DOC. Woody weeds form dense, monospecific stands in many areas of NZ. At some sites, the weed dies out naturally to be replaced by native species as succession proceeds, but at others the weed persists indefinitely. The ability to distinguish between these different trajectories is critical to effective weed management, but the conditions that determine successional outcomes remain poorly understood. However, clues to the successional trajectory at any given woody weed site can be found in the understorey, because understorey plants represent the potential future plant community, in the absence of disturbance.

Saturday–Sunday 2–3 October: Field Trip **Wairarapa**

Day 1: Duntulm Farm, Mangatarere Valley, Wairarapa

Botanise private mixed podocarp – northern rātā - beech forest & regenerating farmland with mānuka. The owners trap intensively so we may find new species. **Leader:** Owen Spearpoint owenspearpoint@gw.govt.nz 027 285 8083. **Map:** NZTopo50-BP34 Masterton; Tararua Parkmap 274-02, 1:100 000. Google <https://thespinoff.co.nz/the-bulletin/05-06-2020/the-native-forests-offsetting-your-emissions/>. **Meet:** 9.30 a.m. at 820 Mangatarere Valley Rd. From SH2 north of Carterton turn left onto Chester Rd, pass cemetery (on right) along straight to a right curve. Turn left onto Mangatarere Valley Rd—part seal then winding dirt road. Drive to no. 820*, turn down through gate into paddock—owners will meet us under macrocarpas (* Some room to park on road). If you have a 4wd please bring it—the main track is good travel—Mangatarere Stream crossing needs care. Park by shed—walk up to cottage for a.m. tea. Separate into 2 groups. If people do split up—stay in groups of 3 minimum—tell others your plan. **One group:** Climb Fish's Tail or Curlers tracks to bush paddock—mature podocarp – beech forest—then return via Horseshoe Track. Great views from high point on Horseshoe Track. **Other group:** Descend from cottage to Shed Track and down Amatiatia Track. If time allows up Best Track on more recently purchased block - not botanised to date. Some mature forest near shed and a pond—most of route is regenerating mānuka. Possibility: Botanise Upper Track through black beech forest on spur.

Curlers, Upper, Amatiatia & Horseshoe tracks—old farm 4wd tracks & more gentle gradients. Fishtail, Best and Bush Paddock tracks—tramping routes. Height gains: to top of Best Track 450 m; to top of Fishtail 240 m. Vehicles parked at shed ferry people across stream, Mangatarere Stream is normally knee deep with a stony bottom. All meet back at macrocarpas.

The property is on margins of Tararua Range—it can be wet, windy, cold. Bring lunch, thermos, water, scroggin, sturdy boots, waterproof parka & leggings, warm clothes, hat & gloves.

Overnight: Stay at <https://www.cartertonholidaypark.co.nz/>. Ph 06 379 8267. Please make your own bookings.

Dinner: Potluck. **Leaders:** Owen Spearpoint 027 285 8083 owen.spearpoint@gw.govt.nz. Sunita Singh 027 4052 987 /sunita@actrix.co.nz

Day 2: Timbrel Station

Botanise beech forest with occasional podocarp broadleaved forest on margins of Aorangi Range. It can be misty, wet, windy, and cold, so bring lunch, thermos, water, scroggin, sturdy boots, waterproof parka and leggings, warm clothes, hat and gloves. If weather wet we will cancel. **Meet:** 8.50 a.m. Martinborough Square outside toilets. Meeting farmer at station at 9.30 a.m. **Map:** NZTopo50-BQ34 Martinborough. **Route:** White Rock Rd – Range Rd – Paruwai Rd – Huangarua Valley, over bridge, then turn left up river to station nearby. 2wd access to farm.

Monday 18 October: Evening meeting **Student presentations:**

1. Speaker: Colan Balkwill, BotSoc grant recipient towards PhD. How can we ensure NZ's plant species are robust in a warming world? As habitat suitability shifts and land use becomes more intense, maximising adaptability within small forest patches will be essential to ensuring the persistence of NZ's flora. Colan will discuss how genetics can begin to inform the rescue of plant species significantly affected by habitat loss. As a case study,

he will introduce his PhD research, focussed on restoration and conservation genetics of maire tawake / swamp maire / *Syzygium maire*, a wetland tree species which has lost over 98% of its habitat in the Wellington Region.

2. Speaker: Joe Dillon, Student, VUW: A Hungry Botanist's Journey: from bugs to birds to plants. Joe will talk about what he feels his role in plant conservation has been, including his career and voluntary aspirations, and what he's managed to do with social media. He'll provide his perspective on involving younger generations including his own by outlining his journey—how a three-year-old who named bugs under rocks at kindy grew into a fifteen-year-old young birder and then into a 'botanist-in-training'. Slides will include some of his favourite plant photos.

Saturday 6 November: Field Trip

Ōtaki Gorge wetland

Botanise a wetland on terraces above Ōtaki River in Tararua Forest Park's foothills. Access to wetland is a 30 – 45 minute walk along private 4wd track—steep climbs, up and down ca. 120 m. Site surrounded by regenerating forests on slopes and grassland / fernland. Wetland includes patches of shorter stature kahikatea, sedgeland and rushland with shallow surface water—herbaceous plants throughout. Owing to site sensitivity to trampling, numbers will be strictly limited to 15 people to minimise impact. **Train:** 8.14 a.m. Kāpiti Line train from WN. Stn. to Waikanae. **Meet:** Waikanae Railway Station north end car park, 9.30 a.m. to car pool to site. **Leaders:** Helen White 022 413 5194, wellingtonbotsocmembership@gmail.com; Owen Spearpoint 027 285 8083 owen.spearpoint@gw.govt.nz

Monday 15 November: Evening meeting

Out and About in the Kaimai Range

Speakers: Gael Donaghy and Graeme Jane, BotSoc junkies. The Kaimai Range is the northern extent of the Volcanic Plateau and the vegetation represents a transition from that of the plateau to that of the northern part of NZ. The forest has been severely modified since European settlement by logging and the introduction of pests.

22–29 January 2022 Summer camp:

Katikati, Bay of Plenty

The northwest Bay of Plenty is fringed by the densely forested Kaimai Range which slopes down to Tauranga's extensive harbour, with many wetland opportunities. Forest trees include pūriri, kohekohe, rimu and rewarewa. Possible field trips: McLaren Falls; Aongatete Loop tracks; Tuahu Track—kauri; Homunga Bay—coastal pōhutukawa forest; Mt Te Aroha—high altitude vegetation; possibly Matakana Island; Wharawhara; Lindeman Loop.

Accommodation: Aongatete Outdoor Education Centre, near Katikati. Transport from Tauranga Airport (40 minute drive) to be arranged. <https://www.aongateteoec.co.nz/>

Preference will be given to members of Wellington BotSoc. Please either download registration form here for doc version or here for pdf version, or complete and post the registration form at the end of this newsletter. Please send your completed form and deposit to BotSoc by 15 November – BotSoc's last meeting in 2021.

Deposit: \$430.00 per person to be paid at time of registration.

Contact: Frances Forsyth, 021 0725210, 04 3848891, email francesmjforsyth@gmail.com

Maps: NZTopo50-BC36 Katikati, NZTopo50-BD36 Lower Kaimai, NZTopo50-BD37 Tauranga, NZTopo50-BD38 Maketu.

PUBLICATIONS

1. What's up DOC.

- www.doc.govt.nz

2. Open Space No. 99. 11/20: Annual report; some new covenants; coastal restoration; rat control; board of directors – changes; lessons from a lifetime of environmental protection; restoring forests on our doorsteps; covenant as legacy; covenantors; etc.

- • www.qeiinternationaltrust.org.nz

3. Greater Wellington's 2021-31 Long-Term Plan. Adopted by Council 29.6.2021. Downloadable PDF version of 2021-31 LTP HERE

- If you would like a hard copy of the 2021-31 LTP tell us so we can arrange it - e-mail Corporate.Planning@gw.govt.nz

4a. A guide to freshwater pest plants of the Wellington region. Ministry for the Environment. A5, 49 p. colour illustrations. For more information: Greater Wellington Regional Council Biosecurity Team.

4b. National Pest Plant Accord. NZ Government. 10.2017

reprint. A6, 133 p, spiral bound, colour illustrations.

4c. Plant Me Instead – Wellington Region. Published by Weedbusters. 2013. A5, 40 p, colour illustrations.

4d. Seen it? Call us! Leaflet - colour illustrations of 12 pest plants which GWRC Biosecurity staff will control for free
• 0800 496 734 www.gw.govt.nz/biosecurity_pest.plants@gw.govt.nz

- The above documents will be available at our evening meetings.

5a. Toitū te marae a Tāne: Restoration Planting Sites. A4, 68p, colour illustrations.

5b. Toitū te marae a Tāne: Restoration Planting Techniques. A4, 59p, colour illustrations.
• Wellington City Council. www.wcc.govt.nz

6. Flora of NZ – Ferns and Lycophytes – Blechnaceae. P.J. Brownsey & L.R. Perrie. Fascicle 29 2/21.
• Manaaki Whenua Press

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

7. **NZ Botanical Society No. 144.** 6/21: *Celmisia hieracifolia* var. *oblonga*; regional botanical societies' news; Philip Caldwell Gardner (1928–2000) – plant collector; Joshua Salter (1946–); drawings of 10 *Kunzea* entities; etc. Annual sub: \$25 (\$18 if paid by due date on invoice) –full-time student: \$12/\$9.
• www.nzbotanicalsociety.org.nz
8. **Auckland Botanical Society Journal Vol. 75(2) 12/20.** Field trips; general interest.
• https://drive.google.com/file/d/1x9VFC7Lvo_imebFocvFpnyr3jtGtNd-/view?usp=sharing
9. **Canterbury Botanical Society Newsletter 2021/9:** When to plant if restoring native forest, Dr Rob Allen; etc.
• info@canterburybotanicalsociety.org.nz
<http://www.canterburybotanicalsociety.org.nz/>
10. **Nelson Botanical Society – Quarterly newsletter.** Winter 2021: Simon Walls' 30 years as a biodiversity ranger in NW Nelson; natural history of (some) NZ flowers – Phil Garnock-Jones; *Corokia cotoneaster* / korokio; tawa; nikau; *Bolboschoenus caldwellii* / purua grass; etc.
11. **Wellington Botanical Society Bulletin No. 58** 6/21: Obituary—Rodney J. Lewington 1935–2018; Lisbon's mystery tōtara trees; Zealandia & Wellington Botanic Garden BioBlitzes—diatoms—microscopic algae; obituary— Ian A. E. Atkinson 1932–2019; biennial heavy flowering of cabbage trees (*Cordyline australis* Forst. F. Endl.), Lower Hutt, NZ, 1990–2018; Hutu, *Ascarina lucida* in Akatarawa Forest; bryophyte flora of ZEALANDIA Eco-Sanctuary, Wellington City; Ex situ conservation of *Dactylanthus taylorii*; To plant, or not to plant? That is the question.
- 12a. **NZ Plant Conservation Network - Trilepidea – e-newsletter 208** 6/21.
- 12b. **NZ Plant Conservation Network - Trilepidea – e-newsletter 209** 7/21.
- 12c. **NZ Plant Conservation Network - Trilepidea – e-newsletter 210** 8/21.
• https://www.nzpcn.org.nz/publications/documents/?publication_type=6148
13. **Seed dispersal of fleshy-fruited environmental weeds in NZ.** Debra M. Wotton; Kate G. McAlpine.
• debra.wotton@moasark.co.nz
<http://www.newzealandecology.org/nzje/>
14. **Understorey vegetation provides clues to succession in woody weed stands.** *NZ Journal of Ecology.* Kate G. McAlpine, Shona L. Lammoureu, Susan M. Timmins.
• kmc Alpine@doc.govt.nz
15. **Tieke.** Weekly e-bulletin. Environment and Conservation Organisations of NZ Inc – ECO.
• eco@eco.org.nz
16. **Forest & Bird.** Winter 21: Browsers & carbon capture; protecting South Island high country dry-land ecosystems; protecting us & our land; Predator-Free 2050?; te reo in taxonomy; reforming RMA; habitat loss; rats' impacts; nature in a warming world; new conservation park on Banks Peninsula; lowland swamps; Waikākāriki Wetland; etc.
• www.forestandbird.org.nz
17. **Gorge Gazette.** Trelissick Park Group. 8/21. Storm damage; planting; pest control; etc.
• www.trelissickpark.org.nz
<https://www.facebook.com/TrelissickParkGroup>
18. **Tawatawa Southern Environmental Association.** Mid-winter newsletter: Fungi; trapping; etc.
• seanewslet@gmail.com
- 19a. **EDS book: Conserving Nature: Conservation Reform Issues Paper.** Dr Deidre Koolen-Borke & Raewyn Peart. Environmental Defence Society.
- 19b. **EDS Environment Guide: comprehensive review of its web-site:** <http://www.environmentguide.org.nz/>
• manager@eds.org.nz
20. **Project Tāwhaki – a unique partnership for Kaitōrete with MBIE.**
• <https://www.mbie.govt.nz/science-and-technology/science-and-innovation/international-opportunities/new-zealand-r-d/innovative-partnerships/project-tawhaki/>
21. **Lomatia fraseri, new weedy tree in Wainuiomata, Lower Hutt.** Dr Leon Perrie & Dr Lara Shepherd, Te Papa.
• <https://collections.tepapa.govt.nz/document/11031>
22. **Wilding.** Isabella Tree – her real name.
• *Wellington Public Library.*

DOC Wellington Visitor Centre

*Te Pae Manuhiri, Te Rohe
ō Te Whanganui ā 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



Department of
Conservation
Te Papa Atawhai

SUBMISSIONS MADE

Wellington City Council Trading and Events in Public Places Policy – Statement of Proposal July 2021

Wellington Botanical Society urges Council to avoid commercialisation in any form and for any period of:

1. The Wellington Town Belt
2. Scenic Reserves
3. Recreation Reserves supporting indigenous ecosystems unless that commercialisation involves activities which could benefit the environment, e.g.,
 - organisations which take groups of children or adults, e.g., the City-to-Sea group, to learn about the natural values of a site;
 - organisations such as ōtari-Wilton's Bush Trust which runs a stall during the annual ōtari Open Day to raise funds for the benefit of the native-plant projects run by staff at Ōtari -Wilton's Bush.

Chris Horne

President's Report to the 82nd Annual General Meeting of the Wellington Botanical Society, 16 August 2021

Welcome to the 82nd Wellington Botanical Society AGM and Tony Druce Memorial Lecture.

Since last August Covid-19 has further disrupted our meetings and trips. We have been fortunate to have Kate Jordan and Helen White, our very capable Zoom Organisers, to wrangle software and hardware to make our meetings happen. Watching meetings by Zoom proved very popular, especially for those out of town. A meeting of 40 people can be doubled by Zoom to 80, and Zoomers can also ask questions of the speaker.

Field trips

The last year we botanised on ten field trips in the Wellington region. Our summer camp in January was on Banks Peninsula, based at Wainui YMCA Lodge.

Our summer camp this coming summer - January 2022—will be based in the Bay of Plenty near Katikati. A registration form and notice is included with this newsletter.

Finding new sites for us to explore is always a challenge. If you know of any out-of-the-way sites with interesting botany, particularly those with friendly landowners, please contact our Programme Organiser, Sunita Singh.

We are always keen to find new people to lead trips – if you would like to volunteer then talk to Sunita and we can pair you up with an experienced trip leader.

Committee

I want to acknowledge the massive amount of work that the committee puts in to a successful year of Wellington Botanical Society activity.

Kate Jordan	Secretary and Zoom Organiser
Chris Moore	Treasurer
Sunita Singh	Vice-President and Programme Organiser
Owen Spearpoint	Vice-President
Chris Horne	Newsletter
Bev Abbott	Submissions coordinator
Eleanor Burton	Bulletin editor
Helen White	Membership Secretary and Zoom Organiser
Julia Stace	January 2021 Summer Camp
Richard Herbert	Web-site
Francis Forsyth	Minutes of committee meetings
Jane Humble	Accounts Reviewer

Kate Jordan, our Secretary, has put in a large amount of work, including correspondence, writing agendas and minuting during the AGM. She is also a Zoom Organiser.

Chris Moore has had a busy year as Treasurer, ironing out some wrinkles, closing some unneeded accounts and bringing information to the attention of the committee.

Sunita Singh is the Programme Organiser and a Vice-President. She has put together an awesome collection of talks and trips this year, and I would like to thank her greatly, as well as all our speakers for the huge effort they put into preparing and delivering presentations.

Chris Horne is the newsletter editor. Three issues of the newsletter are produced during the last year—September and December and April. Thank you to Chris Horne and Jeremy Rolfe for preparing, formatting and producing the newsletter. It's a lot of work, particularly encouraging people to send their articles in on time.

Bev Abbott, our Submissions Coordinator, has been in Australia for most of the year. Instead, submissions were presented by:

Kate Jordan—Wellington City Council Te Kopahou Reserve Draft Tracks Network Plan.

Chris Horne—Wellington City Council 2021-2031 Long-term Plan.

Eleanor Burton produced our *Bulletin 58* in June, and is now relaxing somewhat as she starts to collect content for *Bulletin 59*.

Helen White has been our very able Membership Secretary, embracing this new role. She has instigated sending an e-mail out to members before each meeting, and also details the coming field trip. She is also a Zoom Organiser for our monthly meetings, and sometimes Committee meetings.

Julia Stace was the principal Summer Camp organiser for Wainui, Banks Peninsula in January 2021. Along with this huge effort, she is also a much-valued member of the committee.

Richard Herbert has a great depth of knowledge about how the society runs, and committees in general. He also administers our website.

Frances Forsyth has been recording the minutes of our committee meetings for many years, and also has a great understanding of how we operate.

Jane Humble reviews our accounts very ably - this is a legal requirement for our society.

I also would like to thank Julia White and Leon Perrie for maintaining our social media presence at the public Facebook page, Wild plants of Wellington.

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

Jon Terry

2020/21 Meeting attendance in-person + via Zoom

2020

21.9	A.G.M; Graeme Atkins, DOC: Battle to save the Raukūmara Range.	38+33=71
17.10	Students: Miro Kennett, Tom Dawes, Christopher Cornwall + Fools & Dreamers via UTube	42+18=60
16.11	Melissa Hutchinson, Ecologist. Flora & habitats of Banks Peninsula	32+17=49

2021

	15.2 Carlos Lehnebach, Te Papa. Orchid conservation in NZ. Zoom only	50
15.3	Winifred Long, VUW. Kōtukutuku Ecological Restoration Project KERP - mice	30+22=52
19.4	Dr Leon Perrie, Te Papa. Name changes – ferns: the good, the bad, the ugly	30+10=40
17.5	Members' Evening: Ian Goodwin – photos; Lara Shepherd – City Nature Challenge, Chris Horne-reading; Jenny Fraser–Te Tairāwhiti	24+32=56
21.6	Illona Keenan, WCC. Woefully weedy Wellington.	24+32=56
19.7	Dr Roger Uys, GWRC. Wellington's dunelands & uncommon ecosystems.	36+47=84
	Total	462

2020/21 Field trip attendance

2020

5.9	Kiripiti Scientific Reserve. Cancelled – Covid-19.	0
3.10	131 Valley Rd, Paraparaumu	33
17.10	Te Mārua Bush workbee	8
14–15.11	Koromiko and Dandaloo Stations, East Wairarapa	8

2021

13–21.1	Camp Wainui, Banks Peninsula, Te Pātaka o Raikaihautū	31
13.2	Mt. Climie, Remutaka Forest Park	22
6.3	Queen Elizabeth Park – Maclean and northern peat wetlands	16
17.4	Ralph Green's forest, Kāpiti Coast	9
1.5	Ōpau Valley – Makara Farm	18
5.6	Field Reserve – Forest & Bird. Kaitawa Reserve – KCDC, Kāpiti Coast	19
3.7	Ramaroa Bush, Whareroa Farm – DOC, Paekākāriki	28
19.6	Te Mārua Bush workbee	7
7.8	Pākuratahi Forest – GWRC, Tāne's Track	24
	Total	223

Wellington Botanical Society

Prepared by Chris Moore, Treasurer

Closing Balance Sheet for 2020/2021 Financial Year

General Account					
2020	Expenditure	2021	2020	Income	2021
797	Printing	969	2,915	Ordinary subscription	2,325
458	Postage & Stationery	1,107	1,005	Country subscription	705
819	Meetings & Admin	628	25	Student subscription	10
180	Subscriptions to other organisations	60	893	Group subscription	987
105	Assets converted to consumables	1,522	4,838	Total Subscriptions	4,027
960	Transfer to Student Award Fund	0			
2,000	Transfer to Bulletin Account	0	1,869	Interest on investment	1,217
1,388	Surplus on General Account for the year	6,076	0	Miscellaneous	5,120
<u>6,707</u>		<u>10,364</u>	<u>6,707</u>		<u>10,364</u>

Jubilee Award Fund					
2020	Expenditure	2021	2020	Income	2021
			76,130	Opening Balance	77,391
250	Science Fair Award	0	1,071	Donations	1,543
2,600	Jubilee Award	0	194	Book and Plant sales	207
77,391	Closing Balance	81,063	2,846	Interest on Investment	1,921
<u>80,241</u>		<u>81,063</u>	<u>80,241</u>		<u>81,063</u>

Tom Moss Student Award in Bryology					
2020	Expenditure	2021	2020	Income	2021
			11,078	Opening Balance	11,086
400	Student Award	0	0	Donations	0
11,086	Closing Balance	11,361	408	Interest on Investment	275
<u>11,486</u>		<u>11,361</u>	<u>11,486</u>		<u>11,361</u>

John Child Workshop Contingency Fund					
2020	Expenditure	2021	2020	Income	2021
			5,717	Opening balance	5,927
5,927	Closing Balance	6,069	210	Interest to date	142
<u>5,927</u>		<u>6,069</u>	<u>5,927</u>		<u>6,069</u>

Student Field Grant					
2020	Expenditure	2021	2020	Income	2021
			10,286	Opening Balance	11,137
500	Grants to Students	800	391	Interest on Investment	279
11,137	Closing Balance	10,616	960	Transfer from General Account	0
<u>11,637</u>		<u>11,416</u>	<u>11,637</u>		<u>11,416</u>

Provision for Bulletin					
2020	Expenditure	2021	2020	Income	2021
0	Printing Bulletin	0	9,084	Opening Balance	11,094
0	Distribution costs	0	10	Sale of bulletins	37
11,094	Closing Balance	11,131	2,000	Transfer from General Account	0
<u>11,094</u>		<u>11,131</u>	<u>11,094</u>		<u>11,131</u>

Balance Sheet as at 30 June 2021					
2020	Liabilities	2021	2020	Assets	2021
2,010.00	Life Membership Fund	2,010	3,460	BNZ Current Account	15,832
77,391	Jubilee Award Fund	81,063	2,692	BNZ on call 098 Account	12,698
11,086	Tom Moss Student Award in Bryology	11,361		Bank Funds available	28,530
11,137	Student Field Grant Fund	10,616			
5,927	John Child Workshop Contingency Fund	6,069		50 Display unit	50
11,094	Provision for Bulletins	11,131		24 Camping Equipment	24
				1,216 Stock of postage paid envelopes	0
49,256	Accumulated fund at 30.06.20	49,256		306 Stock of stamps	0
	Surplus for the year	6,076		10 Petty cash	10
	Accumulated fund at 30.06.21	55,332	110,464	BNZ Term Deposits	97,590
			49,680	Westpac Term Deposits	51,378
				Total	148,969
					148,969
<u>\$167,902</u>		<u>\$177,582</u>	<u>\$167,902</u>		<u>\$177,582</u>

The society's 02 Summer Camp account is not listed above as it is overseen separately by the Summer Camp leader and the Treasurer. The General Account, Miscellaneous, entry was boosted by a \$5,000 donation.

I have examined the accounting records of the Wellington Botanical Society Inc. and have received all the explanations requested. I believe the accounts and balance sheet to be a true and fair record of the Society's operation and its financial position at the close of the 2020/2021 financial year.

Auditor:

J. Humbra

Date:

28.7.21

ARTICLES

2021/2022 committee

At the 82nd Annual General Meeting, held in person and by Zoom on 16 August 2021, the following were elected:

President:	Jon Terry	021 168 1176
Vice-presidents:	Owen Spearpoint	562 8780
	Sunita Singh	387 9955
Secretary:	Kate Jordan	wellingtonbotsocsecretary@gmail.com
Treasurer:	Chris Moore	479 3924
		wellingtonbotsoctreasurer@gmail.com
Membership secretary:	Helen White	wellingtonbotsocmembership@gmail.com
Reviewer:	Jane Humble	971 6970
Committee:	Eleanor Burton	479 0497
	Frances Forsyth	384 8891
	Richard Herbert	232 6828
	Chris Horne	475 7025
	Julia Stace	385 4606

Ōtari update

Ōtari Open Day—Saturday 25 September

Planning is well underway for Open Day—please mark it in your calendar now. COVID and staff changes have given us time to rethink the focus of Open Day so it'll be a bit different this year. I want to ensure all that we do at Ōtari builds people's understanding of the significance of the place and the work we do. I have decided there will be less of a commercial focus on selling plants and more of a focus on showcasing the amazing native plants, our people and the unique place. Carol West and I are working to engage a series of speakers and other stalls to ensure there is lots to do in addition to regular tours and food stalls. We will encourage people to book for guided tours. We will give away free native plants to people who complete the tours (tours will be on a first-in, first-served basis—so make sure you book early, but if you miss out there will be some places available for booking on the day. There will be community restoration leaders and professionals to talk to, along with local raranga and rongoā experts, plus microscopes and activities for children.

FREE MULCH!

The mulch pile at the Northern Carpark that staff and local community groups use is getting quite large so we invite BotSoc members to collect free mulch from the area until further notice. Bring a fadge/woolsack to help keep your car boot clean!

Team update

We are now recruiting for a Gardener to replace Megan Ireland who has been promoted to Ōtari Team Leader. We have some great candidates interested! Sadly Dave Bidgood

lost his eldest son to natural causes recently so we are all trying to support Dave at this time and come to terms with this tragedy. Megan has recently attended the Ngutukākā (Kākābeak) Recovery Group in Ruatoria and has also visited Eastwoodhill and the 1769 Garden. Ōtari has been gifted some ngutukākā seedlings which were saved from ungulates in the wilds of Tairāwhiti which Megan is bringing home with her. Interestingly we lost a ngutukākā of unknown provenance during the snow storm last week. We have had Fleur Speedy at Ōtari assisting the team.

Lions Ōtari Plant Conservation Lab update

Planning has begun to expand the lab into the adjacent flat. We have most of the money we need but are looking for grants and funding to enable us to complete the building work and internal fit out to make the space fully functional. We are grateful to the Denton Trust who are contributing \$12,700 towards a new incubator. We have applied to Lotteries for some funding towards a project that will seek to conserve some of the Nationally Threatened orchids native to Wellington, which we hope to do in the expanded lab. Please get in touch if you would like to contribute to this project or know of a potential funding source.

We are now working on all four fleshy Myrtaceae species in NZ, all of which are threatened species:

1. Rātā moehau / *Metrosideros bartlettii*.

We have germinated more seed obtained from the hybridisation with *M. excelsa*. Viability is higher than crosses with other *M. bartlettii* but the seedlings still don't survive for more than four weeks. With these results verified, we will now submit a paper to the journal Pacific Conservation Biology (authors: Karin van der Walt, Jennifer Alderton-Moss, Carlos Lehnebach).

2. Ramarama / *Lophomyrtus bullata* and *L. obcordata*

Based on the storage data obtained from seed collected over three years from several populations it is clear that there is a problem with seed banking for both species, and the problem seems worse for *L. bullata*. Dried seeds stored at 5°C have the best viability after 24 months which hints to freezing sensitivity but there is also viability loss following drying. Using lipid analysis (results show that *L. bullata* has almost double the amount of fat compared with *L. obcordata*), isotherms (where seeds are dried to various moisture contents and viability determined at each step) and thermal analysis to understand where the problem is (or likely to be) for these two species. There also seems to be differences in the storage behaviour from seed collected from different populations.

3. Rōhutu / *Neomyrtus pedunculata*

Determining germination protocols (it seems to have dormant seed) and assessing impact of desiccation and storage temperature on seed viability. This will help us establish a long-term banking method.

Karin is also working on:

Kauri / *Agathis australis*

Seed has been in storage (5°C, -18°C and -196°C) for a month now, so viability assessments will be done over the next week or two to see what the impact of drying and drying & freezing are on viability loss.

Gardens update

We are about to replant the Wellington Coastal Garden. The renewal of the Native Daisy Garden, Banks Entrance and two spots in the Brockie Rock Garden will be complete before Open Day.

We have continuing problems with rabbits and are working to find a permanent solution. Te Wharangi/Skyline is teeming with rabbits at the moment due to the warm summer (pie anyone?). The long-legged rodents are now throughout the forest and thus are very hard to control in the gardens.

You might have noticed a new bus stop near the Wilton Bowling Club also.

Forest update

We plan to upgrade and reroute the track to Moko, the 800-year-old rimu this summer. A short section of new track from the upper Yellow Track to the Lower Blue Track will avoid the steepest section which has 50 giant steps. We are also going to review the signage and way-finding throughout Ōtari to make planning a visit to the forest simpler for new visitors. Titipounamu / rifleman which were reintroduced to Zealandia last year have recently been seen on Ahumairangi - please keep an eye out for them at Ōtari. Please also report any korimako / bellbird, pōpokotea / whitehead, tieke / saddleback and hihi / stitchbird in the general area using eBird or iNaturalist. These species are yet to establish self-sustaining populations at Ōtari so it would be good to know more about them.

Lake Ōtari

Following the extreme weather event recently, a new water feature appeared in the Northern Carpark. A lake about 2 m deep formed when debris blocked both culverts that drain to the Te Mahanga branch of Kaiwharawhara Stream. The water reached the mulch pile and when the water receded it left a large sloppy mess for us to clean up. All up however Ōtari was otherwise unscathed with no slips or slumps, which points to the natural resilience of native forest in the face of new climatic extremes as the world warms. The Te Mahanga branch of Kaiwharawhara Stream was so swollen during this event that it moved large Mobil tanks below Trelissick Park.

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

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: wellingtonbotsocmembership@gmail.com

*Ngā mihi,
Kate Jordan, Secretary*

Wellington covenant update

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 August 2021, QEII has a total of 4,881 registered covenants protecting 179,548 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. Since September 2020, six new covenants have been registered in the Greater Wellington region.

Funding assistance

When approving a covenant, QEII can assist with fencing costs and provides establishment funding. This is most often used for weed control and/or pest-animal control but may be used for native revegetation if appropriate. QEII also encourages landowners with registered covenants to apply for the QEII-administered contestable Stephenson Fund, which is currently open for applications[LD1]—more information can be found on our website. The fund was set up by QEII to support covenant enhancement and management. Over six previous funding rounds, \$23,000 has been awarded for weed and pest control and restoration work in covenants in the Wellington Region. Covenants in the area have also received support for fencing and weed and pest control from Greater Wellington Regional Council.

Kathryn Longstaff – Team Leader Land Protection

QEII Regional Representative update

Trevor Thompson, Wairarapa-Wellington

Ecological weed work continues, with a special emphasis on *Clematis vitalba* / old man's beard in the Wairarapa. This ecological weed establishes unchecked on roadsides and river systems, spreading far and wide with its wind-borne seeds.

Deer are causing significant damage to some of our covenants in both regions and plantings in covenants have been decimated as a result. Some farmers are taking action that counts—not just a bit of venison for the freezer every now and then. Recently, deer fencing has been completed on a 30-ha covenant and I am putting this forward as the preferred fencing option, with a higher level of financial help in proportion with the higher costs to fence.

Recently, I looked at one of the new *Olearia gardneri* populations set up two years ago—65 healthy plants, which were grown from seed by Ōtari Botanic Garden. The Ōtari team also helped with planting them, which was welcome. The original source population of 400 plants now has genetic insurance in four separate set up populations to give security to those vigorous genes.

I ran a propagation workshop for individuals from Kohinui Marae who want to bring mistletoe back to their rohe, Pirinoa, another Te Reo name for mistletoe.

Loranthaceae mistletoe work continues, with significant insurance populations of *Ileostylus micranthus* (ca. 60), *Tupeia antarctica* (ca. 50), *Alepis flavida* (8), *Peraxilla tetrapetala* (40).

A few years ago, an oil company sponsored the work I did on a private block, which had ca. 18 *Tupeia antarctica* to enhance numbers. When work on propagation started, it became obvious that the aged *Nestegis cunninghamii* / black maire trees were in decline and in some cases dead. On top of that there were excessive possum numbers eating the *T. antarctica* and preventing fruiting. A great deal of searching of historical sites found two trees with fruit, one requiring a 20 m climb and a long pole to shake loose fruit into catching nets below. A total of thirteen new plants were established from fruit gathered—a lot fewer than hoped for.

Rabbits were a major native-plant pest over the summer, with understorey and ground-cover completely decimated in some areas with very limited control measures available. The removal of rabbit predators—rodents and mustelids—in landscape-scale pest-control operations has resulted in more pest animals than ever taking advantage of an abundant food source and a rabbit plague that has not been seen for many years.

Restoring open areas within QEII covenants continues with plants often grown from seed from that site and rare Wairarapa species reintroduced as appropriate e.g., *Coprosma wallii*, *C. obconica*, and *Olearia gardneri*, to name a few.

A secure population of *Corokia cotoneaster* was found in a QEII hill-country covenant and is possibly the only one that is naturally occurring, although they are often planted from non-eco-sourced nurseries. Seed has been collected and cutting material gathered for setting up some new Wairarapa populations in secure QEII covenants.

Cutting material and limited seed has been supplied to our local specialist native nursery, Norfolk Road Nursery, from the nationally vulnerable and threatened *Brachyglottis pentacopa* found only on one coastal maunga on the Wairarapa coast. This will be planted within a significant-sized exclusion fence to protect against goats in particular but it will be deer-proof as well. An insurance population in another suitable area poses some challenges but is in the plan to be done in the next two years. With the help of four boys from Masterton Intermediate School rugby team, I built a 50 m fence in mid-August 2021 to exclude browsing goats, deer and pigs. This area will be stocked with *B. pentacopa* as soon as plants are available—a tough climb up Mount Percy with rolls of stock mesh and 30 waratahs.

Wairarapa has many rare and endangered plant species and QEII covenants have been a vital part of returning and strengthening populations, not just a few plants but hundreds. Much of this work has been done at little cost and a lot of effort, and QEII covenant owners are the kaitiaki of these special plants—most are farmers who have protected and continue to protect the areas where these plants can be found.

A recent addition to the 6000-hectare plus of covenanted land has been a karst-limestone area with specialised plants for that environment, with weed species already given a hurry up and enhancement planting to begin shortly.



Baring Head restoration update

Colin Ryder's sudden death was a shock to the Trust, and a major blow to our capacity to raise funds and manage work. But the trustees have rallied and done our best to fill the huge gap.

The focus at the moment is the annual planting season. The Million Metres crowd-funding programme was successful, so we have the funds needed to put in another 8000 plants in the river valley. About 5000 have been planted to date. We have been concentrating on a few species that cope with wind, drought, hares and/or floods (ngaio, flax, toetoe), but this year have included a wider range of species. It will be interesting to see how they cope. Those planting are mostly being done by corporate volunteers and Hutt Valley Tramping Club working bees. We have also hired Matt Ward to propagate rare plants for reintroduction or to expand very small populations. This year we have put in some *Carex buchananii*, *Brachyglottis greyi* and *Muehlenbeckia ephedroides*.

Hare shooting continues. The lower numbers shot this season hopefully indicate that they are not breeding as rapidly as Darren is picking them off. On the southern end of the property, particularly along the coast, a major rabbit-control operation was recently done by GWRC. Rabbit numbers had reached levels not seen in previous years. They had destroyed all grass from the sandy tallus slopes under the southern escarpment, leaving just bare sand, and were gradually moving their way up-slope. While eradication wasn't achieved, vegetation is gradually recovering.

That unfortunately includes the next crop of lupins, which is now germinating. Lupin control has cleared a lot of the coast, so we will be working with GWRC to try to come up with a long-term plan to stop re-invasion. We

Taputeranga Marine Reserve
For any Conservation-related illegal activity,
call the 24-hour conservation emergency helpline
DOC HOTline
0800 362 468
For Search & Rescue—call 111
All other enquiries to your local DOC office or visit our
website www.govt.nz
Department of Conservation
Te Papa Atawhai
New Zealand Government

have only one large patch of horned poppy left, with very few found along the rest of the coast. The remaining patch is in an area that had very few plants among the lupins. When the lupins were removed, the area went from a few poppies to almost complete coverage in less than a year—a great lesson in the risk if we let a few pioneers produce seed. Based on what is happening on the rest of the coast, the seed-bank life is short, and once they are largely gone, maintenance and eventually eradication is not difficult. We are helping Jo Greenman (our ranger) promote poppy control along the Eastbourne coast, where invasion is just starting.

In the valley we have settled on a planting methodology that seems to be working—despite two months of no rain in summer we lost very few plants. We turf off the thick grass, plant into the bare patch that is created, and then provide a wool or jute mat to stop the grass re-invading. With that method, we can also avoid needing to do releasing. Spot spraying was abandoned as a method because that needs to be done by the ranger or a trained operator, and in windless conditions. Availability of someone who can do the work and windless days seldom coincide. We now have a few volunteers who are expert in turfing grass, and the Conservation Works Skills trainees have also done a lot. The key is to get to know your grasses - some are quite easy to remove and some not worth trying.

The patterns of natural regeneration reinforce the need for us to keep planting. In the wetlands, natural recovery was rapid, with species such as *Isolepis prolifer* overwhelming water celery and *Carex geminata* rapidly moving up the slopes. Areas of rough pasture/grey scrub mixture have also been recovering naturally. But where there was good pasture, there has been no natural regeneration at all. The only seedlings we are seeing are tauhinu along the edges of roads or where we have turfed off grass for planting. Even where there is seed available, other species aren't turning up in the retired paddocks, possibly because of mouse predation of seed.

The river is changing rapidly this year. Last year the main change was the development of new islands and bars. This year a succession of floods has resulted in major bank erosion and movement of islands.

Further work has been done on the lighthouse buildings, including major improvements to the volunteer base. If anyone is keen to do a botanical outing and stay overnight, contact Paula—pwarren@doc.govt.nz.

Paula Warren

NZ's biggest restoration project underway

Greater Wellington Regional Council is putting its Low Carbon Acceleration Fund to work, using it to pay for Aotearoa's biggest restoration fund which will see 128.5 ha of land in Queen Elizabeth Park and 21.8 ha of land at Kaitoke near Upper Hutt transformed into permanent carbon sinks for our region—absorbing 41,695 tonnes of carbon in the first thirty years.

comms@gw.govt.nz Tō Tātou Rohe 20.8.21.



Upper Hutt Busters of Old Man's Beard (UH BOMB)—a community group protecting local native forests

Chris Cosslett (*Blackened Billy Rewilding Services*)

021 136 0934

cosslett.hunter@pinehaven.net.nz

Old Man's Beard (OMB) is a serious pest plant around Upper Hutt and the problem is rapidly getting worse. A wild clematis from Europe and Asia, in New Zealand it has no natural enemies and it grows rapidly, climbing up and over trees and smothering them to death.

OMB is a problem across the whole Wellington Region but the approach to control differs from district to district. Greater Wellington Regional Council controls it in “key native ecosystem” sites across the region. Hutt City Council controls it wherever it occurs in Lower Hutt, be it on public or private land. Upper Hutt and Wellington city councils control it to varying degrees on their own land. All over the region though, the efforts by public agencies are not enough to control the spread so community help is needed if we are to keep our forests safe.

UH BOMB volunteers work on forested land regardless of who owns it (with permission of course). We find the vines in the bush, cut them off at ground level then treat the stumps with a poison gel to kill the roots. The vines smothering the forest canopy rapidly die and rot away and the trees, exposed to the sun again, recover and the canopy heals. Once a shading canopy is re-established, OMB seeds struggle to germinate. A healthy forest with a shading canopy is reasonably safe, except around the edges and along streams, road edges etc. The forests most vulnerable to invasion tend to be young, regenerating bush. Upper Hutt has a lot of that sort of forest.



The worst section of the SH2 escarpment in 2016 before we began work (top) and two years after our initial treatment. This area has been followed-up annually since then.

When we save a patch of forest from being killed, we not only save the trees but we also protect the habitat and food sources for native wildlife. That's why our group is now part of Pest-Free Upper Hutt, which aims to bring birdsong back to all parts of our city. Freeing the forest from OMB also helps keep atmospheric carbon locked up in trees and allows them to keep growing, absorbing more carbon. Killing OMB helps, in a small way, to combat climate change.



The UH BOMB programme began in July 2016, on the escarpment above SH2 just north of Silverstream Bridge. The volunteers, led by a local contractor paid for from fundraising and the Branch's own reserves, have now completed three sweeps of the escarpment from Silverstream to the mouth of the Whakatikei River (including Trentham Scenic Reserve).

We now maintain that whole area, removing seedlings from clearings and forest edges, and controlling isolated vines that were missed the first time around. This follow-up work is quite specialised and is being handled by Forest and Bird's contractor and a handful of experienced volunteers.

As at August 2021 we are just over halfway through a three-year grant from the Department of Conservation's Community Fund for this maintenance work.

Recently we began work on a new site behind Tōtara Park and Birchville, where we are helping GWRC with a major infestation on the edge of Akatarawa Forest. The picture below shows the bush edge behind Tōtara Park in winter. This area has since been cleared.

New volunteers are given tuition and guidance on the job. Forest and Bird supplies the poison gel and also cutting tools if needed. Everyone gets morning tea from the Silverstream Bakery. It is hard but very satisfying work. Every time you kill an OMB vine you save a tree. And the results are very visible, very quickly. If you would like to join our merry band please e-mail: uhbusters@gmail.com

Finding distant, isolated pest plants is now straightforward

Over the past couple of years we have developed and refined a technique for finding isolated pest plants that can be seen from afar but must be approached blind through the bush. We use a rangefinder, compass and handheld GPS. Using this technique we have quickly and easily found single OMB plants up to 700 metres from the nearest viewpoint. I have written a short manual on this technique but it is too long to reproduce here. If you would like a copy please go to: <https://www.ombfree.nz/about-us-faq/locating-distant-omb>



Old man's beard along the bush edge behind Totara Park. This infestation has been cleared since the photo was taken.

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

17 April 2021: Ralph Green's Longacre Bush, Kāpiti Coast

This was the second attempt to visit Ralph Green's 3ha property as the proposed visit the previous Saturday was cancelled owing to bad weather.

Ralph's property is a regenerating *Rhopalostylis sapida* forest with some large *Laurelia novae-zealandiae*, *Dysoxylum spectabile* and *Prumnopitys taxifolia*. There was not a lot of plant diversity on the lower nikau slopes but this improved further

up the slope. Rabbits, *Asparagus scandens*, *Selaginella kraussiana* and *Tradescantia fluminensis* pests were noticeable.

Highlights were a *Metrosideros fulgens* in flower and several *Streblus banksii*. Two of the latter were on an adjacent property on to which we had inadvertently wandered. It was here, on a platform built by the neighbour, that we had lunch in very pleasant

surroundings.

Many thanks to our host Ralph who was very helpful and went out of his way to show us around. The trip concluded at a café in Coastlands!

Participants: Eleanor Burton, Olia Glade, Bryan Halliday, Chris Horne, Kair Lippiatt, Chris Moore (leader/scribe), Stirling Smidt.

1 May 2021: Ōpau Stream and valley, Makara

Eighteen of us braved the chilly southerly to visit Ōpau Bay. Three 4WDs ferried passengers south down the steep road to the stream, while others chose to walk. From there we explored the coastal turf along the edges of the stream, finding *Samolus repens* var. *repens*, *Selliera radicans*, *Lilaeopsis novae-zealandiae* and *Leptinella squalida* subsp. *squalida*. One highlight was finding several patches of the Nationally Vulnerable sea holly (*Eryngium vesiculosum*) in seed, and several of us noted the prickliness of the seed heads. The stream itself contained several species including *Potamogeton cheesemani*, *Lemna dispersa*, *Azolla rubra* and *Callitriche stagnalis*. *Blechnum banksii* (also known as *B. blechnoides*) was growing on the stream bank.

From the stream we headed to the coast, where some chose to walk along the beach, some chose to examine

the seaweeds and others opted for morning tea. A large horned poppy / *Glaucum flavum* was removed from the back of the beach and we marvelled at the number of seeds within each seedpod.

Next, we headed south up the valley past a karaka grove and a large, but not very diverse, wetland of raupō and *Carex geminata*, and then made our way along a track up a side stream. Of note was an extraordinarily large broom (*Carmichaelia australis*) that had fallen across the stream but was still alive. There were larger trees here but the understorey was depauperate with many of the palatable species typical of such a habitat absent. We saw evidence of goats—dead and alive—and cattle.

Overall, we were able to make several additions to the 1998 Mitcalfe and Horne list, including *Senecio lautus*, *Cotula coronopifolia*,

Eryngium vesiculosum, *Peperomia urvilleana*, *Chenopodium triandrum* and many exotics. We were also able to add 407 observations of 189 species to iNaturalist for this year's City Nature Challenge, with *Leptinella squalida*, *Olearia solandri* and *Muehlenbeckia complexa* our most observed species on the trip.

Although a sign noted the occasional presence of bitterns in the swamp, none were seen. Several people were excited to see a black fantail, a form that is uncommon in the North Island.

Participants: Elise Bailey, Eleanor Burton, Gavin Dench, Michele Dickson, Ian Goodwin, Jill Goodwin, Pat Enright, Kate Jordan, Justin Knight, Tom Mayo, Mick Parsons, Leon Perrie (co-leader), Lara Shepherd (co-leader/scribe), Sunita Singh, Christopher Stevens, John Van den Hoeven, Carol West, Julia White

5 June 2021: Field Reserve and Kaitawa Reserve, Kāpiti Coast

Field Reserve is 600 metres south of Otaihanga Roundabout on the former SH1. This 3.76 hectare reserve has broadleaf forest on a gentle slope up to a low ridge which adjoins DOC's Paraparamu Scenic Reserve reserve, separated by a three-wire fence. The Kāpiti-Mana Branch of Forest and Bird have owned and cared for the reserve since 1973. Two local members of the branch met us on site.

Once inside the bush, everyone scattered to the four winds. There are no formed tracks in the reserve, although a trapping route can be discerned at times. The groundcover

and understorey varied from sparse to abundant. There were masses of nikau / *Rhopalostylis sapida* and kohekohe / *Dysoxylum spectabile*, with the ground carpeted with nikau seedlings in many places. There were also a lone tōtara—ca. 50 cm d.b.h. and tōtara seedlings and a few plants of tūrepe / large-leaved milk tree / *Streblus banksii* (Conservation Status: Relict). There were delightfully few exotic plants—a few scattered *Tradescantia fluminensis*, some seedlings of *Asparagus scandens*, plus a few Chinese gooseberries and an *Aucuba japonica*—probably escaped from a

nearby garden.

There was evidence of vegetation-monitoring, with some trees and pegs bearing numbered aluminium tags. There was a variety of pest-animal traps, with evidence of success in the many nikau and kohekohe seedlings.

After Field Reserve, many trip attendees headed to Kaitawa Reserve for lunch. The Reserve is another Kāpiti-Mana Branch project. With support of the district council, they planted 30,000 plants in 1995, implementing the dream of Ngāi Tahu kaumātua John McLachlan's dream of revegetating the former weed-covered

wasteland. Some of the plantings are a little unusual for the locale. An interesting find was *Adiantum diaphanum*, a maidenhair fern.

Participants: Sue Boyde, Eleanor Burton, Lisa Clapcott, Barbara Clark, Jenny Fraser, Julia Fraser, Ken Fraser, Olia Glade, Andrew Hawke,

Chris Horne, Kate Jordan (leader/scribe), Pat McLean, Allan Munro, Viola Palmer, Leon Perrie, Roy Slack, Stirling Smidt, Jon Terry, Carol West.

19 June 2021: Te Mārua Bush workbee

A small group assembled in overcast weather at the gate to Te Marua Bush.

Our main work was to replace twelve dead or dying trees in the southern section south of the gate. This area was previously used as a construction site for the Kaitoke Hill deviation of SH2 in the 2000s—the initial tree planting was in 2006. See BotSoc Bulletin Number 55, November 2014 pp 84–110 for more details.

Before the first planting the site was ripped to make planting easier but the topsoil was sparse.

The trees that were dead or dying

were the colonisers, e.g., *Veronica stricta*, *Coprosma robusta*, *C. autumnalis* and wineberry.

The tōtara, black maire, matai and *Griselinia littoralis* seem to be surviving well. In some places the tree roots were growing along the surface in their efforts to find nutrients.

Planted in the southern section were four *C. robusta*, one *C. propinqua*, two *Myrsine australis*, four *Phormium tenax* planted against the fence by Twin Lakes Road at the southern end. One *C. propinqua* was planted in the small area next to SH2 at the bottom of the hill. A fertiliser

tablet was added for each tree.

Barbara Mitcalfe's kahikatea was not looking good and may need to be replanted. This planting site is on the toe of the topsoil heap which may be too fertile for this species.

A search of the bush produced little rubbish apart from a bedspread which Chris pulled out—it had been there for so long that it had tarata roots growing through it. We found no tradescantia or montbretia.

Participants: Trudi Bruhlmann, Michele Dickson, Chris Horne, Ann Mitcalfe, Allan, Glennis and Graeme Sheppard.

3 July 2021: Ramaroa Bush, Whareroa Farm Reserve

Whareroa Farm is a recreation reserve between Paekākāriki and Paraparaumu, to the east of State Highway 1 and flanking Akatarawa Forest. While managed by the Department of Conservation, it receives considerable care and attention from the volunteer group, Whareroa Guardians, whose representatives Ann Evans and Susan Blaikie joined our trip. Several tracks at Whareroa provide opportunities for walking, cycling and horse-riding through a sheep and beef farm. Among areas of native plantings are several forest remnants, one of which is Ramaroa Bush, which our group of 28 accessed through plantings alongside Te Ara Ramaroa Track. It was a gloriously sunny and still winter's day, albeit a little wet underfoot in places.

Ramaroa Bush has a canopy principally of tall kohekohe / *Dysoxylum spectabile*, with some tawa / *Beilschmiedia tawa* and pukatea / *Laurelia novae-zelandiae*. Near the northern margin is a large-leaved milk tree / *Streblus banksii* that is massive, albeit with its trunk damaged on one side. This species has been supplemented with several planted individuals.



Thanks to pest control by the Whareroa Guardians, seedlings of kohekohe and titoki formed a dense carpet in some places, here among juvenile thread fern *Blechnum filiforme*. Photo by Leon Perrie.

Inside the forest is an enormous kōhia / native passionfruit / *Passiflora tetrandra* vine that snakes its way up into the canopy, as well as at least a couple of big epiphytic puka / *Griselinia lucida*. Also noted were *Adiantum diaphanum* and *Arthropteris tenella*, which are warmth-loving ferns uncommon in the southern North Island, several beautiful icicle fungi / *Hericium*

novae-zealandiae on a fallen log, and numerous individuals of the hybrid between lancewood and coastal five-finger (*Pseudopanax crassifolius* × *P. lessonii*), which is weedy in the southern North Island.

Pat Enright had provided us with a species list for Ramaroa Bush. Given his thoroughness, it was little surprise that we made only a few additions: a single medium-sized puriri / *Vitex lucens*, presumably planted within the forest; seedlings of small-leaved milk tree / *Streblus heterophyllus* (or are they hybrids with *S. banksii*?); a

patch of native spinach / *Tetragonia implexicoma*; one terrestrial plant of what could be kāpuka / *Griselinia littoralis*; one seedling of *Elaeagnus ×reflexa*, which was removed; and a small amount of *Tradescantia fluminensis*. A possible seedling of miro / *Prumnopitys ferruginea*, which would have been an addition, was later determined as matai / *P. taxifolia*, consistent with adult trees in the bush.

Whareroa's Matai Bush and the kohekohe forest of the Forest Loop Walk should make for an interesting future visit by Wellington Botanical Society



Lesions like this were seen on the trunks of several kohekohe. What was their cause? Photo by Roy Simons.



The large vine of native passionfruit *Passiflora tetrandra* (with Chris Horne). A few fallen fruits were seen on the forest floor. Photo Julia Stace.



Icicle fungus *Hericium novae-zealandiae*. Photo by Lara Shepherd.



Pteris tremula at left has more rectangular frond segments than *P. macilenta* at right. If in doubt, the frond segments of *P. tremula* have free veins while the veins of *P. macilenta* are, in Darea's jargon, "anastomosing", forming a net-like pattern. Photo by Leon Perrie.

West.

Participants: Rachael Ashdown, Susan Blaikie, Eleanor Burton, Gavin Dench, Michele Dickson, Ann Evans, Jenny Fraser, Julia Fraser, Ken Fraser, Ian Goodwin, Jill Goodwin, Chris Horne, Kate Jordan, Kate McAlpine, Rose McCarthy, Viola Palmer, Mick Parsons, Leon Perrie (co-leader/scribe), Brony Shepherd, Lara Shepherd (co-leader), Darea Sherratt, Barbara Simons, Roy Simons, Sunita

Singh, Julia Stace, Carol West, Julia White, Debra Wotton.



The scribe comparing *Blechnum chambersii* (at left) and *B. membranaceum*. Photo by Carol

7 August 2021: Pākuratahi Forest – Tāne’s Track

On 7 August, 24 BotSoccers and friends botanised Tāne’s Track in Pākuratahi Forest, Upper Hutt. We met at the upper carpark and walked counter-clockwise around the upper track before lunch. After lunch, we ambled along the lower track and explored the swampy area next to the road.

The upper track travels through remnant native bush and is botanically very interesting. It begins in broadleaf forest—some of the usual species included the broad-leaved coprosmas, māhoe, putaputawētā, hīnau and tawa interspersed with kahikatea, rimu and a couple of *Pseudowintera axillaris*—before climbing slightly into hard beech forest. It’s a great opportunity to see the difference in the undergrowth between the two forest types.



Pascale Michel admires a clump of *Dawsonia superba*.



Coprosma colensoi. Illustration: Eleanor Burton.

On the lower track, a mature *Raukaua edgerleyi* captured many people’s attention so we worked through the features to identify it including a very shiny leaf, a long

petiole with a joint at the base of the leaf, a remnant of the compound leaf of the juvenile plant.

For fern enthusiasts, there was a lot to see and learn—eleven species of *Hymenophyllum* and a chance to

see *Blechnum minus* and *B. novae-zealandiae* growing next to each other. As Leon Perrie explained, the difference between the two is a dark spot on the centre of the scales in *B. novae-zealandiae* and a uniformly tan scale in *B. minus*.

The track is blessedly free of invasive weeds, with the exception being buttercup and selfheal. Owen Spearpoint theorised they may have come in with the gravel for the tracks and thought they could be easily controlled.

Other noteworthy observations were *Dawsonia superba*, the tallest self-supporting moss in the world and the insect damage on the pukatea.

The leader would like to thank attendees for their diligence in letting her know when they were leaving early.

Participants: Helen Bichan, Eleanor Burton, Gavin Dench, Michele Dickson, Pat Enright, Jenny Fraser, Julia Fraser, Ian Goodwin, Jill Goodwin, Richard Grasse, Chris Horne, Kate Jordan (co-leader), Chris Moore, Mick Parsons, Leon Perrie, Lynne Pomare, Lara Shepherd, Allan Sheppard, Sunita Singh, Julia Stace, John Van den Hoeven, Helen White, Julia White (co-leader), Carol West.

Wellington Botanical Society – 2022 Summer Field Trip

In on 22 January 2022, out on 29 January 2022

Based at Aongatete Outdoor Education Centre, Bay of Plenty.

Completed forms and deposit to be in on, or by, 15 November 2021—the last BotSoc meeting of the year.

Name:	Address:
Home phone:	Mobile:
E-mail:	
Emergency contact:	Relationship:
Home address of contact:	

Travel and accommodation arrangements

Please indicate which evenings you intend to be at Aongtete Education Centre:
 22 Jan 23 Jan 24 Jan 25 Jan 26 Jan 27 Jan 28 Jan 29 Jan

Type of accommodation you require:
 Bunk accommodation in dormitories (in alcoves with 4 bunks in each), \$18/person/night.
 Tent site \$18/person/night.
 I/we will make my/our own arrangements.

Please specify your mode of travel to Aongatete, e.g., public transport, own car, or as a passenger with someone else.

We have the option of hiring a van from Tauranga bus station and airport.
Please indicate if you are interested. We will suggest a time to meet for pickup to fill the van.
 Yes No

If you are going with your own car, how many additional passengers could you take?
 None 1 2 3 4

If you are taking a car, will it be available for day trips? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is it a 4WD? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Do you have any dietary requirements?
 Gluten-free Dairy-free Vegetarian

Payment

Registration form
Complete the form above, or download it from the web site: http://www.wellingtonbotsoc.org.nz/trips_2022.html#camp

Digital form: Fill in the form's check boxes by double-clicking on them then click on 'checked' button.

Deposit: Estimated cost per person: \$430. (This applies both to those who are bunking or camping.)

Please make payment as specified.

By Electronic Funds Transfer: please make the deposit of \$430/person to the Society's account 02 0536 0017812 02 citing your names) in the particulars/references boxes of the payee section.

E-mail the registration form to Frances Forsyth at francesmjforsyth@gmail.com

At the end of the trip, depending on the final cost, you will be sent an invoice (or a refund) for the full cost less your original payment.



Membership application

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

I wish to join the Society

My name Mr/Mrs/Ms/Dr..... Phone (.....) (h)

My address Phone (.....) (w)

..... Fax (.....)

I would like to receive my newsletters by e-mail as a PDF: YES / NO (Delete as appropriate)

My/our e-mail address@.....

Signature Date:..... / /

The membership year is from 1 July to 30 June. Dues received after 1 May will be credited to the following year.

Membership fees for the year ended 30 June 2022 are:

Type of membership: *Ordinary* \$35; *Country* \$30; *Student* \$10; *Group/family* \$40.

We welcome donations to support research into NZ native plants and to the Jubilee Award Fund.

Please pay direct to the Society's bank account 020536 0017812 00

using the following details:

Particulars: *Name*

Code: *Membership type*

Reference: *amount of any included donation*

and e-mail this completed form to the Membership Secretary at wellingtombotsocmembership@gmail.com

or post to: **Membership Secretary, Wellington Botanical Society Inc, PO Box 10 412, Wellington 6140**

Payment has been made for	Ordinary membership	\$.....
	Country membership	\$.....
	Student membership	\$.....
	Group / family membership	\$.....
	Donation	\$.....
	TOTAL	\$.....

Authority to release your name, address and phone number to other members of the Society.

The Society holds the names and addresses of all members to use for post-outs of newsletters etc.

The committee sees benefit in circulating the membership list to all members. This is done by many societies to enhance social interaction as well as being of practical value.

Under the Privacy Act the circulation of names on such lists requires the approval of the individual members.

If you are agreeable to your name and address being on the circulated list, please sign the authorisation below and return it with this membership application.

I agree to my name, address and telephone number being on the membership list to be circulated to members of the Wellington Botanical Society. I understand that this list is to be used only by members, and that the circulated list will include the caveat that the list is for social and society use and is not to be used for any other purpose.

Specifically the list is not to be used for marketing, soliciting or political purposes.

Name..... Signed..... Date / /

Name..... Signed..... Date / /

If you do not agree, it would assist processing if you could please put a line through paragraphs above and return the form unsigned.