



### From the President

As I write close to the first day of spring, I hear tales of kōwhai flowering ever earlier each year—late July when it's normally September! What's going on? Climate change, you say? Better to look for long-term trends than comparing between recent years.

The Summer Camp in January 2020 will be in Northland, based at Lonsdale Camp Outdoor Education Camp, Matauri Bay Rd, Kaeo, 20 km north of Kerikeri, Bay of Islands. This is a great part of the country, with many different habitats to explore. I'm personally looking forward to the many estuaries in the region with salt-marshes and extensive mangroves. You can apply to attend the Summer Camp using the registration form at the back of this newsletter.

Looking on our Facebook page (<https://www.facebook.com/groups/322939557873243/>) I see the following events approaching...

- WCC's Berhampore Nursery Open Day 14 September. There will be tours, propagation advice and native plants for sale! Emerson St, Berhampore, 10 a.m.–2 p.m. <https://www.facebook.com/events/1326784734154623/>
- Conservation Week: Ōtari-Wilton's Bush Open Day and Plant Sale on September 21 2019, 160 Wilton Rd, Wilton, 10 a.m.– 2 p.m. <https://www.facebook.com/events/2233761050079912/>

See you on iNaturalist, recording the first flowering day of your favourite native!

*Jon Terry, President*

### New members

We welcome the following people to BotSoc:

Bridget Hatton, Jess Randall, Bronwen Shepherd and Laura West.

*Lea Robertson, Treasurer*  
*Lea Robertson, Treasurer*

### Articles for web site

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

[www.wellingtonbotsoc.org.nz](http://www.wellingtonbotsoc.org.nz)

Please send your article to:

Richard Herbert

e-mail [herbert.r@xtra.co.nz](mailto: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 [esmeraldadoris93@gmail.com](mailto:esmeraldadoris93@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. on the third Monday of each month at Victoria University, W'gton – Lecture Theatre MYLT101, ground floor, Murphy Building, west side of Kelburn Parade. Enter building about 20 m down Kelburn Pde from pedestrian overbridge. No meetings December and January.

### 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, at Easter and the first weekend in December.

### Wellington Botanical Society

<b>Address:</b>	PO Box 10 412, Wellington 6143	
<b>Web site:</b>	<a href="http://www.wellingtonbotsoc.org.nz">www.wellingtonbotsoc.org.nz</a>	
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<b>Annual subscription:</b>	ordinary \$35; country \$30; student \$10; joint / group / family \$40.	
Send your subscription to Treasurer, WBS, Box 10 412, Wellington 6143 or to our bank account 020536 0017812 00.		
New subscribers: Please complete form at the back of this newsletter.		

**DEADLINE FOR COPY FOR NEXT ISSUE – 20 November 2019**

Articles may be edited for clarity and length

# ATTENDING FIELD TRIPS AND MEETINGS

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## 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.

## 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, and 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](mailto: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 p.m. from Norwich Street, Wilton, 7.14 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.

## FIELD TRIPS & EVENING MEETINGS: OCTOBER – DECEMBER 2019 & JANUARY 2020

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.

#### Saturday 7 September: Field trip Rangituhi / Colonial Knob Scenic Reserve

This is the site of the proposed Porirua Adventure Park on which BotSoc made a submission - see December 2018 newsletter, page 6 and April 2019 newsletter, page 7. Botanise near two old reservoirs in the valley of Mitchell Stream, and some of the last remaining native forest in the Tawa-Porirua basin. Most of its original cladding of rimu and northern rātā was logged, although some mature trees survive in Porirua Scenic Reserve. The forest today comprises mainly kohekohe, tawa and some rewarewa. On the higher slopes it is dominated by māhoe with broadleaf, stinkwood and māpou. These species are often associated with higher altitudes, reflecting the influence of the weather on this environment. **Transport:** Public transport: none available. **Ride sharing:** If you can offer someone a lift, please contact Jon who will pass your request on. **Meet:** 9 a.m. Spicer Botanical Park carpark, 610 Broken Hill Rd. **Maps:** NZ Topo50 BQ31 Porirua; street. **Leader:** Jon Terry 021 168 1176.

#### Monday 16 September: Evening meeting Wellington Outer Green Belt Management Plan Review

**Speakers: Bec Ramsay and Shona McCahon,** Parks Sport & Recreation, WCC, will discuss the results of the recent public consultation including numbers of submissions received; proportion of submissions focusing on protection of natural values, compared with those focusing on recreational facilities; key changes that arose from the review, when implementation will begin; how changes will be funded.

#### Saturday 5 October: Field trip Waterfall Road, Raumati South

Botanise an 80-ha patch of covenanted private bush with three species of maire, large northern rātā, rimu, tōtara, *Mida salicifolia* and an interesting range of ferns and orchids. Terrain rugged in parts. **Leader:** Alison Lane 022 309 4558. **Catch** 8.44 a.m. Kāpiti Line train from Wellington to Paekākāriki Station. **Car pool** at Paekākāriki Station at 9.30 a.m. to drive to the site. **Map:** NZTopo50 –BP32 Paraparaumu.

## Monday 21 October: Evening meeting

### Research and Student presentations

1. **Katherine de Silva**, Victoria University of Wellington, Masters' Student: *Temporal Development and Regeneration Dynamics of Restored Urban Forests*. This study looks at the temporal trends in canopy development and seedling regeneration within restored urban forests throughout NZ. This addresses key restoration questions such as "How long does it take to achieve canopy closure?", "Is natural succession occurring?" and "What dominant plant traits are regenerating over time?". We also look at key drivers of native seedling regeneration.

2. **Fabio Mologni**: *Hidden invasion dynamics of exotic plants on islands*. Islands are particularly susceptible to plant invasions. However, differences in the distribution of native and exotic species on islands are not fully understood. We sought to determine how several island attributes affect native and exotic species richness on more than 250 islands off New Zealand. Results show that the richness of native and exotic species respond to similar island attributes. However, a novel approach unveils subtle differences, suggesting that distinct mechanisms drive native and exotic species distribution on NZ's offshore islands.

3. **Ganges Zi Yang, Lim**: *Signal Honesty In Bird-Plant Interactions – The Role Of Plant Signals In Avian Foraging*. The absence of large mammals in NZ for the better part of its natural history has resulted in an unusual frugivore assemblage as a result of its isolation, with birds and insects becoming the main dispersers of fleshy-fruits. His project looks at how plant visual signals influence their interactions with birds. Specifically, he was interested to find out if signal honesty in fruits and flowers increases the reproductive success of native species, and hopes that this study will provide us with valuable information about the plant-dispersal networks and their role in the conservation of native flora and fauna.

## Saturday 2 November: Field Trip Waipango Stream, Mangaroa, Whitemans Valley

Join us on a first-time botanising trip of two properties at the head of Waipango Stream, Mangaroa and help to create a plant list. The 10-ha forest remnant is mature beech that grades down-slope into podocarp/broadleaf and swamp forest recently partially or fully fenced with deer excluded from one property. This forest is interesting and diverse, and now that farm animals have been excluded, it could contain some interesting finds. The understorey contains much

*Gahnia* in places, so bring some protection as it has sharp leaves. **Bring** sturdy footwear, warm clothes and prepare for rain. **Transport**: There is no public transport to the site. **Catch**: Hutt Line train from Wellington Station at 8.35 a.m., alight at Wallaceville Station at 9.18 a.m. **Meet**: Wallaceville Station car-park at 9.30 a.m. **Car-pool** there to travel to site in convoy. We will leave the properties by 3 p.m. the latest. **Leader**: Owen Spearpoint 027 285 8083/04562 8780. **Maps**: NZTopo50-BQ5032 Lower Hutt, plus street map.

## Monday 18 November: Evening meeting The collision of conservation, colonisation and the collapse of Northland's native forests

**Speaker**: **Dean Baigent-Mercer**, Northland Conservation Advocate for Forest & Bird. How did the last great native forests of the north end up in Government hands? What is unique to northern ecologies and what's missing? Hear part of the recent story to turn around the collapse. This talk will help set the scene of the remarkable ecologies of the north before our January 2020 BotSoc summer visit. Dean will be talking in person or by Skype.

## Sunday 24 November: Workshop Ōtari-Wilton's Bush

Extra trip this month.

As part of the joint NZPCN/ASBS conference, botanise the bush at Ōtari. A range of possibilities depending what people are interested in on the day, from original forest to regenerating bush. **Meet**: 9.00 a.m. on the deck outside Ōtari Information Centre, 160 Wilton Rd, Wilton. **Transport**: No. 14 Wilton bus - Kilbirnie 8.10 a.m., Courtenay Place 8.28, Molesworth St 8.35, alight in Warwick St. **Co-leaders**: Megan Ireland and Tom Mayo 022 689 7826. **Map**: street map.

## 16–23 January 2020: Summer Camp Bay of Islands area, Northland.

Botanise Northland's fascinating forests. Sites we aim to visit include ancient kauri forest at Ōmahuta and Puketi, coastal forest at Whangaroa Harbour and private land at Berghan Point and Whakaangi, near Mangonui. **Accommodation**: Lonsdale Park (<http://www.lonsdalepark.org>), between Kaeo and Kerikeri. Please see the registration form at the end of this newsletter.

**Transport**: We might hire a rental van from Whangarei Airport, but are not guaranteeing this at this stage).

**Co-leaders**: Lara Shepherd ([lara.shepherd@tepapa.govt.nz](mailto:lara.shepherd@tepapa.govt.nz)) and TBC.

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

## Dr Lara Shepherd

We thank Lara for her work as Wellington Botanical Society's president for two years from 2016, then as secretary for two years from 2018, and as organiser of our 2019 and 2020 summer camps.

*The committee*

## AWARDS

- *1 November.* Wellington Botanical Society Tom Moss Student Award in Bryology and Lichenology.  
*See article in this newsletter.*

## EVENTS

- *1st Saturday each month.* Ōtari-Wilton's Bush - Plant Care. 160 Wilton Rd, Wilton. Meet at Te Marae o Tāne/Visitor Centre. No. 14 Wilton bus to Warwick St stop.  
*Wilbur Dovey 499 1044.*
- *14–22 September.* Conservation Week.
- *21 September, 10 a.m. – 5 p.m.* Environment & Conservation Organisations of NZ Inc. AGM & Workshops. St Andrews-on-The Terrace, 30 The Terrace. Wellington, Conference Room 3. All welcome – BotSoc is a member organisation of ECO.  
[eco@eco.org.nz](mailto:eco@eco.org.nz)
- *21 September, 9.30 a.m.-2 p.m.* **Ōtari Open Day**, 160 Wilton Rd, Wilton. **Plant sale** 10 a.m. on Cockayne Lawn. **Kids' activities**, food. **Nature-themed gifts** by local makers for sale in Leonard Cockayne Centre. **Open-Lab** 10 a.m. in Information Centre - work with real lab equipment to investigate what creatures are out there on a microscopic level. **Walks:** 11 a.m. and 1 p.m: meet at Information Centre to join free 1-hour guided walk through Ōtari-Wilton's Bush - hear stories about NZ's native plants. **Bus:** No. 14 Wilton bus from Kilbirnie/Roseneath/Golden Mile, alight in Warwick St. *For more information: ph 04 499 4444 or <https://wellingtongardens.nz/our-gardens/otari-wiltons-bush/>*
- *14–19 November 2019.* **37th annual John Child Bryophyte and Lichen Workshop Camp Taringatura, Southland.**  
**When:** Evening of Thursday 14 November, to Tuesday morning 19 November.  
**Where:** **Camp Taringatura**, Southland.  
**Accommodation:** Available on site at Camp Taringatura (\$25/night for a bunk in one of 5 cabins and \$15/night for a campsite), and in nearby Winton, 15 km south of camp.  
**Access:** Camp Taringatura is <1 hr drive from Invercargill airport, a 1.75 hr drive from Queenstown airport, and a 2.5 hr drive from Dunedin airport. We can help facilitate carpools from various locations.  
**Meals:** Evening meals, Thursday - Monday cooked by caterers at the camp. Breakfast and lunch supplies will be provided to all attendees Friday morning to Tuesday morning.  
**Costs:** Estimate \$350, including \$20-30/dinner, \$5-15/ breakfast/lunch, accommodation at the camp, and the booking fee for use of the camp. Send **deposit of \$150 by 14 October** to confirm your place. **Cancellation:** If necessary, do so before **31 October**.  
**Transport costs:** Most field trip sites are close to Camp Taringatura - a mileage charge (10c/km) will apply to passengers and drivers will receive a refund for providing transport on field trips during the workshop. Those carpooling to/from the workshop will be responsible for making their own arrangements to reimburse drivers.  
**Registration:** E-mail Angela ([angela.j.brandt@gmail.com](mailto:angela.j.brandt@gmail.com)) with

the following information:

- *If you will attend the full workshop, or which dates you will attend*
- *If you would like to reserve a bunk or campsite at Camp Taringatura*
- *If you will join in group meals, and which meals (breakfast/ lunch/dinner on which days)*
- *If you are vegetarian, vegan, gluten-free, or dairy-free; we will try to accommodate special dietary requirements wherever possible but will need to discuss options well in advance with the caterers.*
- **Tom Moss Award:** *This award is open to any student studying any aspect of Australasian bryophytes and/or lichens. See the [Wellington Botanical Society web site](#) for details.*

*Organisers: Angela Brandt, Allison Knight, Maia Mistral, John Steel, David Glenn, Kelly Frogley and Penelope Gillette.*

- *24–28 November.* Taxonomy for Plant Conservation–Ruia mai i Rangiatea. Museum of NZ Te Papa Tongarewa, Wellington. Australasian Systematic Botany Society and NZ Plant Conservation Network. Visit Te Papa's herbarium and Ōtari Native Botanic Garden.

### Programme summary:

- *24.11:* Workshops; welcome reception at Te Papa; after-hours visit to new Taiao-Nature exhibition;
- *25.11:* Presentations; evening: public lecture;
- *26.11:* Talks; conference dinner, Te Papa;
- *27.11:* Field trips;
- *28.11:* Talks; conference closes; public lecture in the evening

### Australasian Systematic Botany Society (ASBS)

- The ASBS is an incorporated association of over 300 members with professional and amateur interests in Australasian systematic botany. The aim of the ASBS is to promote the study of plant systematics in Australasia.
- Plant systematics includes taxonomy and nomenclature. It is the science which unravels the relationships and evolutionary history of the flora. It provides the framework for all comparative biology. It is essential for the identification and conservation of threatened species, the management of native vegetation, and the detection of naturalised species.
- Benefits of ASBS membership include reduced conference registration fees. To learn more, or become a member, visit: <http://www.asbs.org.au/asbs/index.html>

### Field trip 4: Experience the Emerald in our Harbour—Matiu / Somes Island.

Leaders: Gemma Wright (DOC Kaitiaki Ranger) and Jon Terry (Jon Terry Ecology and Wellington Botanical Society). **Matiu / Somes Island** is a 24.9 ha Scientific and Historical Reserve in Te Whanganui-a-Tara, Wellington Harbour. The island has a fascinating place: culturally, economically and ecologically. Many of its values have been restored by volunteers, local iwi and the Department of Conservation. Its pest-free status has resulted in flourishing plants and wildlife. This trip will include an introduction to the island by the leaders, and will allow participants to explore the island and observe tuatara, Cook Strait wētā and numerous bird species. Restoration is ongoing on the island, and the vegetation is recovering well with many coastal Wellington species.

*Notes: Moderate levels of fitness are required. Travel to/from Matiu / Somes Island on [East by West Ferry](#). This trip is limited to a maximum of 30 people who are attending the conference.*

[events@nzpcn.org.nz](mailto:events@nzpcn.org.nz)

# PUBLICATIONS

1. 100 Natural History Treasures of Te Papa. Editor: Dr Susan Waugh. 2019. Te Papa Press.
  - <https://www.tepapa.govt.nz>
2. Open Space. 96 5/19: Dairy Farms NZ purchase two Southland farms with covenants; Birds NZ five-year project developing NZ Bird Atlas; linking kids with nature via technology; Glenfern Covenant, Great Barrier Island; One Billion Trees programme; why people protect their land; new covenants; The Stephenson Fund; etc.
  - QEII National Trust, Box 3341, WN, <https://qeinationaltrust.org.nz/>, [info@qei.org.nz](mailto:info@qei.org.nz) 04 472 6626 Subscription: \$30 individual, \$40 family.
3. NZ ecosanctuaries: types, attributes and outcomes. Innes, J. Fitzgerald, N, Binny, R, Byrom, R, Pech, R, Watts, C, Gilles, C, Maitland, M, Campbell-Hunt, C, Burns, B.
  - John Innes, [innesj@landcareresearch.co.nz](mailto:innesj@landcareresearch.co.nz)
4. Threats to NZ Dryland Ecosystems by Susan Walker:
  - <https://newzealandecology.org/threats-new-zealand%E2%80%99s-dryland-ecosystems>
- 5a. Forest ecosystems of the Wellington region. Nick Singers, Dr Philippa Crisp, Owen Spearpoint.
- 5b. Greater Wellington Regional Pest Management Plan 2019–2039. A4 96 p.
- 5c. GWRC's Proposed Natural Resources Plan. Combines five plans into one. Is still subject to appeal.
  - GWRC, Box 11 646, WN. 04 830 4057. [davor.bejakovich@gw.govt.nz](mailto:davor.bejakovich@gw.govt.nz)
6. Tripleidea. 187 6/19: Conference registration; *Rubus parvus*; Forest Lifeforce Restoration Trust – Rat numbers set to explode in forests this spring; Restoration Planting Guides – Taranaki, Foxton, Manawatu Plains/Whanganui to Paekākāriki; *Trithuria* – question of rank for NZ; 37th annual John Child Bryophyte & Lichen Workshop 14–19.11.19; etc. 188 7/19: Registrations called for Taxonomy for Plant Conservation Network conference. 24–28 November, Te Papa, Wellington; *Chionochloa australis*; Regional & District Plans and *Kunzea*; Revision of *Above the Treeline: a Nature Guide to alpine NZ* – contribute images to [alan.mark@otago.ac.nz](mailto:alan.mark@otago.ac.nz); etc.
  - [events@nzpcn.org.nz](http://events@nzpcn.org.nz) See also conference web site. NZPCN, 160 Wilton Rd, Wilton, WN 6012.
7. NZ Botanical Society Newsletter. 136 6/19: *Microlaena stipoides*; regional botsocs news; list of contacts of botanical societies; 37th annual John Child Bryophyte & Lichen Workshop 14–19.11.19; North Island fern *Adiantum hispidulum* found in Nelson; *Phyllostachys aurea*, an invasive bamboo, flowering in Auckland; Gilbert Mair (1843–1923)—biographical sketch; *Flora of Tokelau* by Dr Art Whistler; *A Field Guide to NZ Fungi* by Shirley Kerr.
  - NZ Botanical Society, c/- Canterbury Museum, Rolleston Ave, CH 8013. [www.nzbotanicalsociety.org.nz](http://www.nzbotanicalsociety.org.nz)
- 8a. Auckland Botanical Society Newsheet. 3/19: Graeme Jane & Gael Donaghy win Hatch Medal 2018, presented by NZ Orchid Group for their work drawing attention to several undescribed orchid taxa. 5/19: Annual report; etc. 6/19: 2019–2020 programme; etc. 7/19: books for sale; etc.
- 8b. Auckland Botanical Society Journal. Volume 74(1) 6/19: Field trips with resulting plant lists.
  - ABS, Box 26391, Epsom, AK 1344. [Aucklandbotanicalsociety@gmail.com](mailto:Aucklandbotanicalsociety@gmail.com)
9. Forest & Bird. 372 Winter 19: Facing climate crisis; Rangitikei River water-extraction threat; network of marine reserves proposed off south-east coast of South Island; legal fund-raising appeal; marine by-catch; mining “under” conservation land; South Island high country tenure review to end; teenager strike for the climate; *Environment Aotearoa 2019* a damming report; 1 million vanishing species on earth; conservationist Dr Jane Goodall; study of 12 freshwater fish species; giant kōkopu; white bait in trouble; takahē; tussocks in a mast year; revamping biodiversity policies; Foulden Maar; tracking yellow-eyed penguins; Pāmu's biodiversity blitz; animal migration; single-use plastic; saving Mōkihinui River; wasps; risk of old landfills; dotterels; rainforest restoration on Solomon Islands; crested grebe; orca in Norway; *Fight for the Forests* – review of Paul Bensemann's book; inanga can climb; conservation innovation in Kāpiti; etc.
  - *Forest & Bird*, Box 631, WN ph 04 385 7374 office@forestandbird.org.nz
- 10a. Fools and Dreamers. Film available on YouTube. Produced by HappenFilms\* about Hugh Wilson's ecologically and genetically sound management of the native plant community and gorse at Hinewai Reserve, Banks Peninsula. His 33-year-long pest-animal control and pest-plant control regime, plus his 'no-planting' policy on the 1500-ha property, provide a fine example for consideration by community groups up and down the country. Patience pays off .when people focus controlling alien animals and plants. \*Antoinette Wilson & Jordan Osmond.
  - Film available on YouTube.
11. Tieke. Weekly news on environment & conservation topics. Environment & Conservation Organisations of NZ Inc (ECO) – BotSoc is a member organisation of ECO.
  - [eco@eco.org.nz](http://eco.org.nz)
12. Backcountry. 215 3/19: Pressure on NGOs to stand up for nature & the public interest; debacle over Aoraki/Mt Cook National Park & Westland/Tai Poutini draft management plans; DOC's new funding; support for 1080; tenure review; etc. 216 6/19. The roles of clubs and their future; Lou Sanson, DG of DOC, on its role, with clubs, protecting natural values; are we protecting paradise or tourism?; tenure review and recreation; Review of *Fight for the Forests*, The pivotal campaign that saved NZ's forests. Paul Bensemann. 2018.
  - *Federated Mountain Clubs of NZ (Inc)*, Box 1604, WN 6140. [www.fmc.org.nz](http://www.fmc.org.nz)
13. News and Views. 6/19: Programme; Trust Board report 2018-19; Ōtari manager's report; list of trustees; John W Dawson 1928-2019; *Acaena glabra*; etc.
  - Ōtari-Wilton's Bush Trust, 160 Wilton Rd., Wilton, WN 6012. [www.owbt.nz](http://www.owbt.nz)
14. Friends of the Wellington Botanic Garden. 3/19: 150th anniversary of the garden; BioBlitz; activities planned; etc. 6/19: 150th anniversary of the garden; new signage; walks & talks programme; etc.
  - FoWBG, 160 Glenmore St, WN. [www.friendswbg.org.nz](http://www.friendswbg.org.nz)
15. Gorge Gazette. 6/19. Treliwick Park Group. Work in Ngaio Gorge plant communities, etc.
  - <https://www.facebook.com/TreliwickParkGroup>  
<http://www.treliwickpark.org.nz/>
16. Tawatawa Reserve, Derwent St., Island Bay.
  - <https://www.facebook.com/tawatawasea/>
17. Solomon Island ferns. Book co-authored by Dr Leon Perrie. The pdf is free from:
  - [https://www.researchgate.net/publication/320109996\\_Sol\\_Amazing\\_Lycophytes\\_ferns\\_of\\_the\\_Solomon\\_Islands](https://www.researchgate.net/publication/320109996_Sol_Amazing_Lycophytes_ferns_of_the_Solomon_Islands)
18. Whose Biodiversity Is It Anyway? by Dave Hansford *How does Aotearoa come to a shared vision for our biota?*
  - <https://scoop.us11.list-manage.com/track/click?u=fd1839b80b980b3dee40fa1fa&id=5bfa39c337&e=1a1d894786>
19. Willdenowia. Annals of Botanic Garden and Botanical Museum Berlin. 49.1 4/19. Taxonomic studies; inventorying plant & fungal diversity; etc.
  - Online ISSN 1868-6397, print ISSN 0511-9618. Available on loan from Chris Horne.

## SUBMISSIONS CALLED FOR

### • 22 September. A new biodiversity strategy for New Zealand?

The Department of Conservation (DOC) is developing a new strategy to guide NZ's biodiversity work over the next 30 years. DOC has produced a 68-page discussion document called *Te Koiroa o te Koiroa* after talking to iwi, interest groups, specialists and three reference groups (stakeholders, and experts in Te Ao Māori and science). DOC wants public feedback on 17 questions in *Te Koiroa o te Koiroa*. We are not going to attempt to answer them all, but will focus on calling for better awareness and management of weeds.

The draft vision provides an opportunity:

"Nature in Aotearoa is healthy, abundant, and thriving. Current and future generations connect with nature, restore it and are restored by it."

Many pests and weeds are already healthy, abundant and thriving. They are part of "nature", but we don't think they belong in the vision. Apparently some readers will find the word "nature" easier to understand than "indigenous biodiversity". There are lots of other language challenges as *Te Koiroa o te Koiroa*, uses lots of te reo. For example, the framework is built around WHAKAHAU, TIAKI AND WANANGA with the English translations underneath in lower case in a much smaller font. It also uses lots of DOC/public-sector jargon, e.g., "Roll out a coordinated national prioritisation system for ecosystem-based management, as well as site and species-based management".

Two draft goals mention weeds, but they need to be more ambitious and much clearer.

- *By 2030, ten key freshwater pest species and 10 key land-based weed species are reduced or controlled to a level that does not diminish ecological integrity.*
- *By 2050, ten key freshwater pest species and 10 key land-based weed species have been eradicated*

To be fair to DOC, progress on the next biodiversity strategy has been delayed by slow progress on the statutory National Policy Statement for Indigenous Biodiversity (NPSIB) which will set out policies for the ways that regional and local

government maintain indigenous biological diversity under the Resource Management Act 1991 (RMA). But government is also revising the RMA, which will have implications for the NPSIB and hence the Biodiversity Strategy. It's not yet clear how the post-border components of central government's Biosecurity Strategy 2025 and regional pest management plans fit into the picture.

Coordination and collaboration will remain major challenges, particularly as iwi, hapū and whānau are pushing for Mātauranga Māori to be considered alongside science in biodiversity decision-making.

Submissions to [nbs@doc.govt.nz](mailto:nbs@doc.govt.nz) by **22 September**.

*Bev Abbott*

## 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.

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

*Thank you,  
The committee*

## President's Report to the 80th Annual General Meeting of the Wellington Botanical Society

Welcome to the 80th Wellington Botanical Society AGM. One of New Zealand's oldest botanical societies, we've been going since 1939!

The past year has seen us botanise on ten field trips in the Wellington region, with the summer camp in Bannockburn, Central Otago. Thirty-three people journeyed south to botanise salt pans, hill tops, alpine lakes and barren fields. By all accounts, a great success!

The summer camp this year will be based in Northland, so make your booking soon!

I would like to thank everyone on the committee for a great effort:

- |                   |  |
|-------------------|--|
| • Lara Shepherd   | Secretary and Summer Camp                            |
| • Lea Robertson   | Treasurer  |
| • Sunita Singh    | Field trips and monthly speakers, and Vice-president |
| • Chris Horne     | Newsletter   |
| • Bev Abbott      | Submissions  |
| • Eleanor Burton  | Bulletin   |
| • Owen Spearpoint | Vice-president                                       |
| • Jane Humble     | Auditor  |
| • Richard Herbert | Web site   |
| • Francis Forsyth | Minutes of committee meetings                        |
| • Julia Stace     |  |

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**. A public page means you don't need to be a member of Facebook to view it. <https://www.facebook.com/groups/322939557873243/>

### 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](mailto:wellingtonvc@doc.govt.nz)

Web: [www.doc.govt.nz](http://www.doc.govt.nz)

New Zealand Government



Department of  
Conservation  
*Te Papa Atawhai*

## Workbees – Te Marua Bush

Ian Atkinson and Tony Druce became aware of the great botanical and ecological significance of Te Mārua Bush, Upper Hutt, during a larger ecological survey.

Ian spoke at the launching ceremony at Te Mārua Bush in 1989 during our jubilee year about the regional and indeed national importance of this river-terrace matai-tōtara-black maire forest remnant.

Since then Wellington BotSoc, combined with local members of Upper Hutt Forest & Bird, have run two workbees every year. We concentrate on weed control and rubbish collection. We report our work to Greater Wellington Regional Council's Kaitoke Regional Park ranger.

## Submissions and reports

Bev Abbott has been once again very busy with submissions this year, with Chris Horne and Jon Terry also submitting one each.

- Wellington City Council: Outer Green Belt Management Plan. (Chris Horne)
- Porirua Adventure Park: Proposed gondola for mountain biking. (Jon Terry)
- Wellington City Council: Parks Network Plan 2019-2029 update.
- Greater Wellington Regional Council Proposed Regional Pest Management Plan.
- Wellington Regional Biodiversity Framework workshops.

## Meetings

Sunita Singh organised a fine collection of talks this year and I would like to thank her, as well as all our speakers for their efforts in delivering a great range of engaging presentations.

The most popular talk, in which 59 people attended, was by Professor Philip Hulme of Lincoln University who spoke about non-native plant invasions in New Zealand.

20.8.2018	AGM and Prof. Bruce Clarkson (Waikato University)	48
17.9.2018	Dr. Susan Walker (Landcare Research)	53
15.10.2018	Bec Ramsay, Thomas Fraser, Matt Biddick, Dr. Dave Burton	43
19.11.2018	Dr. Lara Shepherd (Te Papa)	47
18.02.2019	Prof. Philip Hulme (Lincoln University)	59
18.03.2019	Richard Romijn, Joshua McLennan-Deans	49
15.4.2019	Dr. Wren Green	47
20.5.2019	Members' evening, including Val Smith	23
17.6.2019	Rowan Hindmarsh-Walls (DOC)	34
15.7.2019	Brian Patrick (Wildlands, Christchurch)	54

## Awards

- Jubilee Award: Debra Wotton—*Veronica armstrongii* seedling establishment
- NIWA Science Fair prize: Thomas Fraser—Rongoa Māori Louis Holland—Can a native plant be an effective insulator?
- VUW Student Field Grant:  
Ganges Zi Yang Lim—Leaf shape polymorphism and seed dispersal in coastal plants  
Fabio Mologhi—Island biogeography and species richness  
Katherine de Silva—Factors that constrain or promote plant growth in revegetation plots

## Field trips

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, then have a chat to our trip organiser Sunita Singh.

We are also always after 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.

I'm keen to increase the amount of car-pooling for field trips, to increase social interaction and reduce carbon emissions. Trips over the last year have been well attended, with numbers on each trip listed below.

1.9.2018	Wainuiomata River West branch	33
6.10.2018	Mt Maunganui, Akatarawa Forest	27
25.1–1.2.2019	Bannockburn Camp, Central Otago	33
9.2.2019	Te Ara Piko walkway, Pauatahanui	21
2.3.2019	Steenkamp property, Long Gully	18
6.4.2019	Wellington Botanic Garden BioBlitz	11
4.5.2019	Rallywoods, Akatarawa Forest	22
8.6.2019	East Harbour Regional Park – Northern Forest	18
22.6.2019	Te Mārua Bush workbee, Upper Hutt	10
6.7.2019	Te Ahumairangi—Tinakori Hill	11
3.8.2019	Whitirea Park bush remnant	28

The field trips can be a great way for new members to really get to know the society. Please find some time to encourage any new members you see on field trips, indeed many a mentoring relationship has originated in this way.

## Deceased members

The following members have passed away over the last year: Life members: Dr R.C. Close (1955); Rodney J. Lewington (1962),

Mr/Mrs L.S. O'Neill (1970), Dr J.W. Dawson (1954), and Fred Allen

Jon Terry

## 2019/2020 committee

At the 80th Annual General Meeting, held on 19 August 2019, the following were elected:

<b>President</b>	Jon Terry	021 168 1176
<b>Vice-presidents</b>	Owen Spearpoint	562 8780
	Sunita Singh	387 9955
<b>Secretary</b>	Vacant	
<b>Treasurer</b>	Lea Robertson	473 8211
<b>Auditor</b>	Jane Humble	971 6970
<b>Committee</b>	Eleanor Burton	479 0497
	Frances Forsyth	384 8891
	Richard Herbert	232 6828
	Chris Horne	475 7025
	Sunita Singh	387 9955
	Julia Stace	385 4606
	Bev Abbott	475 8468

## Newsletter by e-mail?

If you would like to help us to reduce our postage costs by receiving your newsletter by pdf, please advise Lea Robertson: harlea@actrix.co.nz



## Annual Report from the Treasurer, Wellington Botanical Society for the year ending 30 June 2019

The accounts for the financial year ended 30 June 2019 show a surplus of \$907 on the normal operations of the Society recorded in the General Account. Website costs are for the past two years, additional funds have been transferred to the Student Field Grant account to maintain a steady closing balance, and the Committee agreed to increase our monetary contribution for the Wellington Science Fair Award this year to \$250. Interest from investments has been steady, although a fall in return is expected over the next 4–5 years. Domestic and overseas postage for newsletters and Bulletins increase again from 1 July 2019, but there has been no price increase for our print products.

Transfer of \$960 each year from the General Account to the Victoria University Student Field Grant Account represents rent of the lecture room we use for meetings. The University allows BotSoc use of the room for our monthly meetings free of charge.

On the income side, subscriptions received have decreased. The amount received from interest has held. Currently we have an average interest return of 3.72% p.a. on invested funds.

\$2,600 was awarded from the Jubilee Award Fund, \$1,800 was given for Victoria University Student Field Grants, and a \$250 prize will be awarded at the NIWA Wellington Science Fair 2019. Plant and book sales have improved thanks largely to a number of botany books gifted to the Society by Donella Moss with proceeds going to the Jubilee Award. Members have continued generously donating to the Jubilee Award Fund. Funds are in place to cover printing and distribution costs for Bulletin 58 in 2020.

See overleaf for the statement of income and expenditure for the year ended 30 June 2019..

### Subscriptions for the year ended 30 June 2020

It is recommended the Society maintain subscriptions at their current level.

- Ordinary membership \$35
- Country \$30
- Joint/family \$40
- The subscriptions above are reduced by \$5 if paid before 30 November 2019
- Student \$10

Subscription reminders are in the text of each of our September, December and April newsletters, and in addition are posted or emailed to members in arrears. Receipts for donations are posted, emailed, or included with September/December print newsletters.

*Lea Robertson Wellington Botanical Society ( Treasurer )  
19 August 2019*

### Student Grants and Jubilee Award

Deadline has been extended to the 3rd of October. Please get you applications to Eleanor Burton [esmeraldadoris93@gmail.com](mailto:esmeraldadoris93@gmail.com) by then.

## Wellington Botanical Society Tom Moss Student Award in Bryology and Lichenology

Wellington Botanical Society invites applications for an Award of up to \$400, the aim of which is to enhance the understanding and awareness of NZ bryology or lichenology, and to celebrate Tom Moss's connection with the Society over many years.

Tom Moss was an active member of Wellington Botanical Society, and was a participant in the very first John Child Bryophyte Workshop in 1983. He helped to organise the second Workshop at Akatarawa in 1984 and attended every year after that until the Kaikoura Workshop of 1993.

To commemorate his name, his contribution to NZ botany, and his particular interest in bryology, a Trust Fund was established following discussion at the 2006 John Child Bryophyte Workshop. It is administered by Wellington Botanical Society. The *Tom Moss Student Award in Bryology and Lichenology* provides a small annual prize for the best student contribution or contributions to NZ bryology or lichenology. The first Award was made at the John Child Bryophyte Workshop in December 2008 in the Catlins Region of SE Otago.

Contributions that would qualify for the Award include:

- A student presentation at the Workshop relating to NZ bryology or lichenology.
- A paper relating to NZ bryology or lichenology. Only one application per student will be accepted (i.e., either a presentation or a publication). This can be published, or accepted for publication, or a significant unpublished report. This should be published or written in the twelve months immediately before the Workshop and submitted for judging by **1 November** each year (see below). It is not necessary to attend the workshop where a paper is submitted for consideration.

Contributions are invited and will be considered from any student enrolled for a B.Sc., M.Sc., Ph.D., or equivalent degree in the twelve months immediately before the Workshop. Students may be enrolled in a NZ or overseas tertiary institution, and may include work on overseas bryophytes and lichens if the work relates in some significant way to NZ bryology or lichenology.

An Award of up to \$400 will be made by a panel of three judges attending the Workshop and appointed by Wellington Botanical Society. The panel may reserve the right to make no award if there are no suitable contributions. Publications for consideration should be submitted with a covering letter by **25 October each year** to:

Tom Moss Student Award, Wellington Botanical Society, PO Box 10 412, Wellington 6143.

Students intending to make a qualifying presentation at the Workshop should indicate this when they enrol for the Workshop – see Events section of this newsletter.

Further information about the Award may be obtained from Dr Patrick Brownsey, Te Papa, PO Box 467, Wellington (Ph: 04 381 7135; e-mail: [patb@tepapa.govt.nz](mailto:patb@tepapa.govt.nz))

**Wellington Botanical Society Inc.**  
**Income and Expenditure for the Year ended 30 June 2019**

General Account					
2018	Expenditure	2019	2018	Income	2019
	996 Printing and Stationery	800	3,310	Ordinary subscription	3,080
	507 Post and telephone	154	945	Country subscription	855
	0 Web site costs	414	30	Student subscription	50
	512 Meeting and Speakers' expenses	611	954	Group subscription	914
	211 Administration	263			
	180 Subscriptions to other organisations	180	5,239	Total Subscriptions	4,879
	7 Petty cash	3	1,854	Interest on investment	1,914
	960 Transfer to Student Award Fund	1,460			
	2,000 Transfer to Bulletin Account	2,000			
	1,719 Surplus on General Account for the year	907			
	<u>7,093</u>	<u>6,793</u>	<u>7,093</u>		<u>6,793</u>

Jubilee Award Fund					
2018	Expenditure	2019	2018	Income	2019
	150 Science Fair Award	250	72,719	Opening Balance	74,411
			1,335	Donations	1,335
	2,600 Jubilee Award	2,600	103	Proceeds of book sales	205
			148	Plant sales	119
	74,411 Closing Balance	76,130	2,856	Interest on Investment	2,910
	<u>77,161</u>	<u>78,960</u>	<u>77,161</u>		<u>78,960</u>

Tom Moss Student Award in Bryology					
2018	Expenditure	2019	2018	Income	2019
	400 Student Award		10,643	Opening Balance	10,661
	10,661 Closing Balance	11,078	418	Interest on Investment	417
	<u>11,061</u>	<u>11,078</u>	<u>11,078</u>		<u>11,078</u>

John Child Workshop Contingency Fund					
2018	Expenditure	2019	2018	Income	2019
	5,502 Closing Balance	5,717	5,294	Opening balance	5,502
	<u>5,502</u>	<u>5,717</u>	208	Interest to date	215
			<u>5,502</u>		<u>5,717</u>

Student Field Grant					
2018	Expenditure	2019	2018	Income	2019
	600 Grants to Students	1,800	9,493	Opening Balance	10,226
	10,226 Closing Balance	10,286	373	Interest on Investment	400
	<u>10,826</u>	<u>12,086</u>	960	Transfer from General Account	1,460
			<u>10,826</u>		<u>12,086</u>

Provision for Bulletin					
2018	Expenditure	2019	2018	Income	2019
	Printing Bulletin	2,109	7,632	Opening Balance	9,632
	Distribution costs	459		Sale of bulletins	20
	9,632 Closing Balance	9,084	2,000	Transfer from General Account	2,000
	<u>9,632</u>	<u>11,652</u>	<u>9,632</u>		<u>11,652</u>

Balance Sheet as at 30 June 2019					
2018	Liabilities	2019	2018	Assets	2019
	2,010 Life Membership Fund	2,010	2,963	BNZ Current Account	3,364
	74,411 Jubilee Award Fund	76,130		3 Cash held	10
	10,661 Tom Moss Student Award in Bryology	11,078		5,686 BNZ Business on call Account	2,689
	10,226 Student Field Grant Fund	10,286		8,652 Bank Funds on current account	6,063
	5,502 John Child Workshop Contingency Fund	5,717		20 Fax Machine	0
	9,632 Provision for Bulletins	9,084		50 Display unit	50
				30 Projector	30
				16 Stock of Bulletins	16
				59 Stock of Tony Druce Trip Books	59
				24 Camping Equipment	24
				1,406 Stock of postage paid envelopes	1,267
				570 Stock of stamps	240
				Investment Pool	
	46,961 Accumulated fund as at 30 June 2018		102,330	BNZ Finance Term Deposits	106,446
	plus surplus for the year	907	46,246	Westpac Term Deposits	47,978
	Accumulated fund as at 30 June 2019	47,868			154,425
	<u>\$159,402</u>	<u>\$162,173</u>	<u>\$159,402</u>		<u>\$162,173</u>

The Society has a #2 current account used for field trip finances. As at 30th June 2019, the 02 account had a credit of \$385. This account is not included above, but overseen by the summer camp leader(s) and Treasurer.

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 financial year.

Auditor:  
Date:

*J. Humble*

17.07.19

## Announcement of the Allan Mere Award for 2019

The NZ Botanical Society Committee is pleased to announce Rodney J. Lewington (1935-2018) as the recipient of the 2019 Allan Mere Award. Rodney was proposed by the Wellington Botanical Society (WBS) and supported by Patrick Brownsey and Peter Beveridge (Te Papa), Ōtari-Wilton's Bush Trust, Allison Knight (Botanical Society of Otago), and Jessica Beaver.

The proposer and supporters included: "...Rodney was for over five decades a driving force in the botanical world through his engagement in the WBS and the Ōtari-Wilton's Bush Trust, his contribution to bryophyte systematics and distribution, and his everlasting energy to promote the wonderful world of plants. Through this nomination, we also would like to acknowledge Darea Sherratt, Rodney's wife, for her years of support of Rodney's botanical initiatives, her commitment to the running of WBS, her tenacity on botanical field trips and summer botanising camps, and her dedication to the Ōtari-Wilton's Bush Native Botanic Garden."

The Allan Mere will be presented to Darea Sherratt at a function in November.

Ewen Cameron  
Secretary, NZ Botanical Society

## Greetings from Ōtari-Wilton's Bush

The forest and gardens are looking very healthy - it feels like spring is here. Staff have been renovating paths and lawns, and doing work on the upper Blue Trail. This track leads to the 800-year-old rimu where Outsiders are building a viewing platform. This feature will prevent further root compaction around the tree and provide a place to sit and admire the oldest tree in Wellington. The project has had a significant contribution from Ōtari-Wilton's Bush Trust - we welcome their support. It will be finished in time for Open Day.

Open Day is on Saturday 21 September. It will feature the ever-popular plant sale, Ōtari Trust BBQ, guided walks, OpenLab, and the nature-inspired craft market in the Leonard Cockayne Centre.

The NZ Plant Conservation Network and Australasian Systematic Botany Society (NZPCN/ASBS) are combining to have their biennial conference in Wellington 24-28 November—for further details visit: <https://systematics.ourplants.org/>. It will be a great event that begins on Sunday

24 November with various workshops, two of which will be held here at Ōtari. I want to thank BotSoc which will run a field trip that day here at Ōtari as part of the conference. It should be a lot of fun and a great chance to introduce international visitors to our unique NZ flora.

We have done some renovation in the gardens this winter, especially opening up the lower collections and completing another part of the Alpine Garden. There is more seating around the forest collections made from slabs of the much-missed tawa that fell in the fernery during a storm in 2013.

The propagation house is having necessary repairs. It will be re-skinned, benches renewed, work area improved and a more reliable misting system installed. Now that seedlings are being germinated in our state-of-the-art lab also means we need a cleaner, more efficient, propagation house to help establish them. I am hope this work will be completed by Open Day.

We are hoping to have a great flowering year this year. Many plants are beginning to bud up. Perhaps even the *Metrosideros bartlettii* - it would only be the second time this beautiful and incredibly rare tree has flowered at Ōtari. I just hope that the recent sudden frost hasn't done too much damage.

Finn Michalak

## Percy Scenic Reserve news

Much has happened at Percy's since Jonathan Frericks joined Hutt City Council. He has taken over the management of the reserve for HCC.

We will soon open up the rockery to the public, with the installation of new gates to maintain the nursery area's privacy, while allowing access to the rockery. We have been giving the plants new labels.

We have done our winter planting over the past six weeks, including many new ferns in the fernery / waterwheel area. We have planted new plants in the pergola-lawn area and the southern-lawn walkway bed. We planted numerous exotics around the main lawn area to add more colour as we have weddings here in summer.

We have planted numerous plants propagated here. These include *Veronica stenophylla* var. *stenophylla* which we collected from the Pelorus River valley in 2017, also *Pittosporum cornifolium*, *P. pimelioides* subsp., *Veronica bishopiana*, *Brachyglottis kirkii* var. *angustior*, *B. hectorii* and *Traversia baccharoides* collected from the Cobb Valley in 2017.

We have had a lot of tree work done to remove dead / declining trees and branches, plus thinning areas and crown-lifting. This has left the reserve looking much more open and allowing a better view of the canopy in areas.

Our propagation from seed and cuttings material collected on our seed-collecting trips has gone well. We have added several species to the alpine collection and in the rockery. These include *Celmisia verbascifolia*, *Acaena anserinifolia* and *A. profundeincisa* all collected from the Cobb Valley in 2017. *Brachyglottis bellidioides* subsp. *bellidioides*, *Geum laiospermum*, *Leptinella atrata* var. *atrata*, and *Veronica lyalii* collected on Foggy Peak and Temple Basin in 2018. Also, *Veronica pulvinaris*, *Celmisia viscosa*, *Luzula pumila*, *Colobanthus strictus* and *Anisotome aromatica* collected this year on Mt. Cheeseman.

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](http://www.govt.nz)  
Department of Conservation  
Te Papa Atawhai  
New Zealand Government

We have taken cuttings from *Olearia hectorii*, a small deciduous tree, aided by an apprentice here for the week from Tauranga.

We are hoping to collect seed from wetland areas on our next seed-collecting trip, early in 2020. We plan to turn the southern lawn into a wetland area as it is a very wet site, so difficult to mow, even in summer. We will propagate plants from these seeds to use in this project.

It would be great to see some of BotSoc members at Percy Reserve, I am sure there would be plenty of things of interest for them here.

Cliff Keilty

## Regional Pest Management Plan 2019–2039

The plan became official on 2 July 2019, after two years' review. Our teams are designing an Operational Plan suited for the new RPMP - the Operational Plan has a one-year duration. The previous years' Operational Plan will be reported on in November. These reports are on our website, [www.gw.govt.nz](http://www.gw.govt.nz)

In the last few months of the 2018-19 financial year, our Pest Plants team completed planned control work in the region's Key Native Ecosystems, and finished annual inspections and control work on species such as climbing spindleberry / *Celastrus orbiculatus*, a Total Control species which we were aiming to eradicate in the region under the previous Regional Pest Management Strategy 2002-2022.

In the new financial year, we've spent time doing delimiting surveys (to determine the extent of pest-plant infestations) for climbing spindleberry and woolly nightshade / *Solanum mauritianum*. In the Wairarapa our team completed boneseed / *Chrysanthemoides monilifera* annual inspections in Mataikona, Castlepoint, Riversdale, Tora, Whangaimoana, Ngawi and Lake Ferry. A new boneseed site was found near Cape Palliser KNE, which means a delimiting survey will also be done here. We have started NPPA inspections of nursery and plant outlets in the region, with nothing unwarranted found yet. Winter is more of a planning time where the previous season's work in KNE and Wetland programme sites is assessed, and we work with the Biodiversity team to arrange work agreements for the coming season. Pest-plant control work has begun in East Harbour Regional Park, at Baring Head / Orua Pouanui, Queen Elizabeth Park, in a Maymorn wetland - new to our Wetland programme - and other KNE and Wetland sites.

Our pest-animals team have been doing more ungulate control throughout the KNE sites, most of which occurs in regional parks and in water catchment areas. The East Harbour Regional Park mast response has been put on hold as the recent monitoring gave lower results than expected—we'll wait to see what the next monitor in August brings before taking action. An aerial 1080 operation in the Wainuiomata Mainland Island is being planned and is awaiting various permissions to be granted.

Our pest-plant and pest-animal teams have been using our drone—we found it particularly useful to survey a large wetland following control of Manchurian wild rice / *Zizania latifolia*. It showed that the spraying was successful in killing the targeted plants and that we could locate small

plants that have since appeared. This was significantly cheaper than using a helicopter to do the work, although determining how to get the information we want onto our software programmes is subject to continuing research. It is clear that we can achieve amazing results using this technology, at a fraction of the cost of standard methods, so it is an exciting tool. Our pest-animal team have found the drone really useful in locating feral goats, and in flushing them out of scrub and into the open where they can be shot.

Katrina Merrifield, Biosecurity Advisor (Policy) -

Kaiwhakahaere rerenga rauropi

Greater Wellington Regional Council Te Pane Matua Taiao

M: 021 417 739. [www.gw.govt.nz](http://www.gw.govt.nz)

## Controlling weeds in Wellington

Wellington City Council held a weed-control workshop in June and will run one on 7 September - both fully booked! WCC may run more workshops, if there is a demand - contact me at my address below.

In Johnston Hill Scenic Reserve, Karori, WCC contractors have destroyed an old man's beard / *Clematis vitalba* vine the thickness of a bicep. It was spotted by Northland resident Gordon Somerville who sent me an image. View some of the iNaturalist old man's beard sightings. Gordon Somerville has been a star contributor to the <https://www.inaturalist.org/projects/wellington-s-old-man-s-beard-sightings>.

After submissions to the Outer Green Belt Management plan, some initial work was done controlling old man's beard on the Karori Cemetery boundary with Johnston Hill Reserve. Weed control contractors Kaitiaki o Ngahere also tracked down a point in Johnston Hill Reserve. It has been controlled. Thanks Gordon!

Illona Keenan

Biosecurity Technical Advisor, WCC. [Illona.keenan@wcc.govt.nz](mailto:Illona.keenan@wcc.govt.nz)

## *Lomatia* naturalised near Wainuiomata

Early this month, a Wellington Botanical Society member told me about a strange plant on the ridge north-east of Wainuiomata. I had a look and found a serious pest plant problem. Although I'm still working to confirm its identity, I'm pretty sure it is the Australian *Lomatia fraseri*. This hasn't been previously recorded as naturalised in New Zealand. There are 1000s of plants spread along at least 2.2 km (as the tū flies) of a ridge-top track through mānuka and kānuka. More than 100 plants are big enough to be fruiting. Seedlings are abundant. Although it may be most common on the track margins, it is extending under the mānuka and kānuka for some distance. This [iNaturalist link will take you to a map](#) of our observations. You can switch to Grid View for a better look at the images.

I'm going to write-up this discovery for Te Papa's blog page. I suspect this plant has strong potential to become a serious weed problem. It is flourishing locally, and there is plenty of similar habitat nearby and elsewhere in New Zealand.

I have alerted Greater Wellington Regional Council to this infestation.

Leon Perrie (PhD), Curator of Botany, Museum of New Zealand

Te Papa Tongarewa,

PO Box 467/Cable Street, Wellington 6011; 021 593 350

[Te Papa's botany collection](https://www.facebook.com/nzferns); [www.facebook.com/nzferns](https://www.facebook.com/nzferns)

## Some thoughts and impressions from the Forest & Bird Conference

Forest & Bird's 2019 Conference and AGM were held 29-30 June at Te Papa. I can't hope to do the event justice here and luckily I don't need to: you can watch the entire conference on Facebook (it's listed under the F & B videos). Below is a light summary with points I thought interesting.

Climate change featured in nearly every presentation and was the focus of F & B's Chief Executive Kevin Hague's closing speech. He encouraged everyone to get courageous about conversation and have difficult conversations. Two of those conversations had occurred earlier: there was a panel of MPs and another panel on climate change. In both instances, National MPs claimed the solutions lay in innovation and innovation alone, ruling out regulation. A representative from Schools Strike 4 Climate spoke exceptionally well and there were many youth representatives at the conference, a hopeful sign for the future.

Conservation Minister Eugenie Sage's opening talk was very well received with a standing ovation – she had so much she wanted to talk about, so the last few slides were rushed past in a blur!

The mega mast was at the forefront of many presentations. Debs Martin spoke on the Te Hotere Bat Recovery Project, Gillian Wadams on Ark-in-the-Park, and Graeme Elliot on the mast season itself. Sue Maturin presented on the Zero By-Catch Pledge (get online and sign the petition if you haven't).

The talk I thought most interesting was Ora Barlow-Tukaki and Tina Ngata's presentation on the imminent biodiversity collapse of Te Raukūmara and the need for a hapū-led response. Tina pointed out the contribution of indigenous territories to planetary sustainability, as indigenous territories hold 80% of the world's biodiversity and sequester 293,061,000 million metric tonnes of carbon dioxide. She outlined the tools of inquiry, using Western science partnered with mātauranga Māori, while Ora also argued that a CMP, rather than a CMS was needed.

Watch the full presentation here: <https://www.youtube.com/watch?v=MxOe36jDpjk>

On the Sunday, the AGM took place with all the boring points of order and conventions that generally take place at AGMs. Two things were interesting though:

Before the AGM proper took place, an F & B staffer educated those present on fresh-water legislation and policy in New Zealand. Legislation and policy can be dry topics, but she made them more interesting by hosting a pub-style quiz, which really engaged people. Admittedly my group's plan to pick the most cynical or depressing of the multi-choice answers worked; New Zealand's waterways are in a bad way. There will be several legislative reviews in the next two years that we will need to make submissions on.

During the time when branches put forward remits to the Council, a representative from Central Otago Lakes put forward the remit 'That Forest & Bird become carbon neutral by 2020'. (The member who put forward the remit wasn't at the AGM - he had decided that travelling up by plane was an unnecessary expense of carbon). I was surprised that many members were reluctant to take up this motion, citing the difficulty of measuring emissions and offsets, the need for many members to drive long

distances to meetings, increased administration pressure on branches, and the tight timeframe. The matter was debated for a while and an amended statement was agreed to: 'That Forest & Bird at all levels takes active steps to move toward carbon neutrality, and that the primary driver for all Forest & Bird action is underpinned by the urgent need to address the Climate Crisis. The Board and CE will report back to Council in 2020 on progress made.' This is possibly something we could consider at Wellington Botanical Society – how can we reduce the impact of our monthly and annual trips on the environment?

*Kate Jordan*

## Ian Athol Edward Atkinson PhD, Ecologist. 1932–2019

We note with sadness the death of Ian on 23 August in Dunedin. Ian contributed his expertise to many official committees and boards, and his clear presentations enlightened many members of the Wellington Botanical Society over the years. His research on the vegetation of the Hutt Valley underpins BotSoc's biannual workbees at Te Mārua Bush, Upper Hutt. Ian's deep understanding of plant and animal relationships inspired New Zealand's unique approach to ecosystem restoration on islands, and later on the mainland. Ian was a friend to his colleagues, and the mentor of many budding ecologists.

*Carol West and Toni Atkinson*

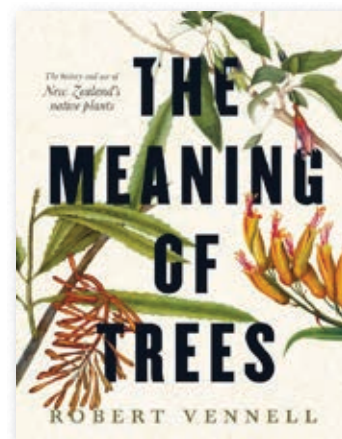
### Book review:

## *The Meaning of Trees* by Robert Vennell

Published by Harper  
Collins 2019

RRP \$55

This is the book for people with a growing interest in our native plants but without a botanical education on which to build. As such it should fill a huge need in the botanical literature, as the nation awakens to the importance of our flora, at last.



Common names are used throughout. Taxonomy & etymology are included in boxes, with slightly smaller font. A clever way to include academic botanical information, while down playing it. The emphasis is on plant uses by Māori and those who investigated our bush resources subsequently. Much interesting information is collected in one attractive book.

In his youth, inspired to eat native plants by Andrew Crowe's books, Robert Vennell learnt to distinguish the trees from the forest. With increasing interest and experimentation he began to blog about the history and uses of native plants. He found there was a huge public interest in his blog on native flora, which led to his writing this book. He doesn't limit himself to trees either. Of the 44 plants described less than half are trees. This is refreshingly

loose. But I do question if the title is quite accurate. As well as trees the book includes chapters on a seaweed, ferns, grasses, climbers and many shrubs.

This book is enhanced by gorgeous botanical illustrations from early botanical artists, now out of copyright, that are used tightly cropped into plant details. They appear as full page headings for each plant which also leavens the text, making the botanical information more digestible. My other quibble is the use of the same detail in a Fanny Osborne painting of a sprig of pōhutukawa, three times.

The plants are grouped under headings of Rongoā rākau, Bush kai, Jurassic giants, Trees of the Gods, Traveller beware, Fringe dwellers and Botanical oddballs. There is

one chapter per plant and photos of the plants in situ are a useful juxtaposition to the clear and detailed artworks.

The *NZ Listener* July 6-12 2019 has a substantial review of this book by Sally Blundell, which stimulates her to comment on many contemporary issues of our forests, such as mass planting, community involvement, therapeutic benefits of forests for urban dwellers and so forth. Already this book has made its mark. As the author is still a young man it will be interesting to see what he writes about next.

I recommend BotSoccers check it out. Although it is not a field guide, there is much information to captivate their friends and family while on bush walks with others who are usually disinterested in plants around them.

Julia Stace

## TRIP REPORTS

### 4 May 2019: Rallywoods, Akatarawa Forest

Twenty-two BotSoccers joined the trip to Rallywoods, a privately owned piece of land in the Akatarawa Range. From the road in we headed into the maze of 4WD tracks towards the Green Hut, where we found a dense regenerating broadleaf forest featuring five-finger (*Pseudopanax arboreus*), māhoe (*Melicactus ramiflorus* subsp. *ramiflorus*), marble leaf (*Carpodetus serratus*), rewarewa (*Knightia excelsa*), kāmahi (*Weinmannia racemosa*), many coprosmas and the occasional large emergent hinau (*Elaeocarpus dentatus*).

Past the Green Hut we traversed the airstrip and were impressed by a large isolated northern rātā (*Metrosideros robusta*), festooned with epiphytes. Beyond the airstrip we lunched whilst Leon showed us how to distinguish different species of mingmingi. Some of us then dropped off the ridge into the hard beech (*Fuscopora truncata*) forest on the hillside, where we found an understorey of filmy ferns. Here we found large fruiting kiekie (*Freycinetia banksii*) near the stream and a number of interesting fungi under the beech trees.



*Hymenophyllum nephrophyllum*.  
Photo: Anna Stewart.

After heading back to the Green Hut we travelled up to the ridge on a 4WD track with some very steep sections. Interesting finds here were the horopito-mimicing *Alseuosmia pusilla* with a single fruit, scarlet rātā (*Metrosideros fulgens*) in flower, a very large ramarama (*Lophomyrtus bullata*) and umbrella fern (*Sticherus cunninghamii*).

The few that ventured west along the ridge to the lookout were rewarded with a seedling of *Raukaua edgerleyi*, a very large hanging clubmoss (*Phlegmariurus varius*) and spectacular views across the Akatarawa Range to the Tararua Range.



Hanging clubmoss (*Phlegmariurus varius*).  
Photo: John Van den Hoeven.



Coral tooth fungus (*Hericium coralloides*).  
Photo: Lara Shepherd.

Additions to our Akatarawa plant list includes the strap fern *Notogrammitis ciliata*, *Veronica parviflora*, *Urtica sykesii*, and a number of weeds. We were pleased that the weeds seem to be largely confined to the track edges and that buddleia leaf weevil, introduced as a biocontrol agent, seems to be hammering the buddleia.

Overall we were impressed with the size of some of the trees, particularly beech and northern rātā, the dense understorey, which despite seeing some evidence of introduced mammals, seems to be not too heavily browsed, and the variety of species

we found, despite us only travelling a few of the available tracks. With numerous other tracks to explore we may need another trip to Rallywoods in the future...

**Participants:** Eleanor Burton,

Gavin Dench, Michelle Dickson, Wilbur Dovey, Jenny Fraser, Ken Fraser, Ian Goodwin, Jill Goodwin, Bridget Hatton, Chris Horne, Jane Humble, Kate Jordan, Alison Lane, Pat McLean, Mick Parsons, Leon

Perrie (co-leader), Lara Shepherd (co-leader), Darea Sherratt, Sunita Singh, Anna Stewart, John Van den Hoeven, Julia White

## 8 June 2019: East Harbour Regional Park—Northern Forest

BotSoccers are a hardy bunch. Even though the weather forecast was bad, 19 enthusiastic and well-equipped people turned up to botanise the Cheviot Road – Howard Road Loop Track. We actually had no rain, mild wind, and nice cool temperatures. The tracks were good walking tracks, the downhill sections were a bit steeper, and with less gravel surface, but with good sturdy steps. Pest-control line markers were common, and closely spaced.

The Cheviot Road track begins with an impressive kahikatea grove, with some large matai and rimu. We spotted a swamp maire, *Syzigium maire*, and a middle-sized large-leaved milk tree, *Streblus banksii*, with its occasional distinctive guitar-shaped juvenile leaves.



*Streblus banksii*.

We soon started to climb, in lush bush, where we saw a screen of kiekie *Freyinetia banksii* covering a steep bank across a gully. We often brushed through a great variety of ferns - one member described the area as a 'Fern-lovers' Paradise'.

There was an abundance of filmy ferns, mosses and lichens on the near-vertical banks, which meant that those interested in these smaller

plants didn't even have to get down on their hands and knees very often!

We lunched at the Loop Track high point, from where a few went up to the Lookout, to enjoy the view of the Hutt Valley, the Harbour and Wellington City.

The track enters a drier forest on the descent, with fewer ferns and more wind. We soon reached beech forest, mainly black beech, with some hard beech, and with occasional views out to the Hutt Valley and Petone.

On this part of the track we admired the abundant carpets of tiny beech seedlings, looking like a gathering of little green butterflies. We also saw a very large *Cordyline australis* cabbage tree, which reminded us that it can grow as a true forest tree of great size.

The *Drymoanthus* orchid that Jill and Ian had seen on their recce wasn't seen on this field trip. Among the orchids we found were *Acianthus sinclairii*, and *Pterostylis alobulum*.



*Acianthus sinclairii*.



*Pterostylis alobulum*.

We saw of these later in the day, in quite large, closely growing patches in full flower, under mature beech trees. Chris Hopkins explained how to differentiate between *Pterostylis alobulum* and *P. trullifolium*.

We listed over 60 trees and shrubs, twelve dicotyledonous lianes, and over 40 fern species. We saw or heard thirteen species of birds. Thanks to Jon for being tail-ender; and to Chris Horne for his great work on the plant list. GWRC have put out a useful brochure covering East Harbour Regional Park, with maps, tracks and times.

**Participants:** Eleanor Burton, Gavin Dench, Michelle Dickson, Jenny Fraser, Hugh Robertson, Lea Robertson, Ian Goodwin (co-leader, co-scribe), Jill Goodwin (co-leader, co-scribe), Bryan Halliday, Chris Hopkins, Chris Horne, Kate Jordan, Alison Lane, Leon Perrie, Lynne Pomare, Lara Shepherd, Sunita Singh, Jon Terry, Sarah Wilcox.

## 6 July 2019: Te Ahumairangi-Tinakori Hill (south end), Northland, Wellington

Despite its appearance from a distance, the site is far from being a pure pine and sycamore forest. From holly to *Hymenophyllum*, *Acacia* to *Thelymitra*, such is the diversity found on Te Ahumairangi following 180 years of human activity, which started with clearing for farming. For a history of planting on Te Ahumairangi Hill see “Vegetation of the Wellington Town Belt” by Dr Maggie Wassilieff: [the To The Town Belt Management Plan 2013](#) has a guiding principle for a long-term vision to see indigenous biodiversity flourishing with podocarp and broadleaf forest well established.

Our route: Bulging with warm clothing, we eleven participants set out from the end of Puketiro Avenue. We passed Stellan Memorial Park’s car-park and an old reservoir to take an un-named sidle track to the junction with a link to the Paehuia Track, where we paused for lunch. Then we descended the Paehuia Track, the East-West Connector, Northern Walkway and a track to Mr G Thomas’s 1906 quarry. We returned via the Stellan Track which in part may be an old farm road.

Right from the start we were botanising a regenerating native understorey with occasional radiata pine, macrocarpa and bishop pine, remaining from exotic conifers planted before 1940. We saw seedlings of titoki, tawa, kohekohe, hīnau, pigeonwood, ramarama, *Metrosideros perforata*, ngaio, tauhinu and nīkau. This suggests that Te Ahumairangi’s proximity to the five native forest areas in Wellington Botanic Garden (1 km), Otari-Wilton’s Bush (1.25

km) and Johnston Hill Reserve (2.25 km) may have provided seeds to Te Ahumairangi, delivered either by birds or the wind.

We saw numerous old plantings, almost certainly from plantings of the early 1900s e.g., *Litsea calicaris*/mangeao (seen on BotSoc’s 2016 Western Waikato trip at its southern limit), black beech, hybrid red beech, pukatea, pōhutukawa, *Weinmannia sylvicola*/tōwai, kahikatea, rimu, tōtara, northern rātā and *Pittosporum ralphii*. Two large *Fuchsia excorticata*/kōtukutuku may have belonged with these plantings too. The mangeao trees varied in height from c. 1 m – c. 12 m, suggesting that at least some of the smaller of the fourteen or so trees we saw along about 200 m of track are a natural spread. No little seedlings were found though. Karaka and karo have spread widely. We saw several seedlings of *Taxus baccata*/yew and miro and one mataī seedling.



*Litsea calicaris*.

Among the twenty-five species of ferns we saw was *Hymenophyllum flabellatum*. Leon pointed out several species of liverwort, explaining the differences between lichens and liverworts.

Weeds we saw included many of the usual plus *Eleagnus ×reflexa*, *Euonymus japonica*/Japanese spindleberry, *Rhamnus alaternus*/evergreen buckthorn, *Calystegia sylvatica*, *Hedera helix*/ivy and a *Passiflora* sp.

We explored Mr G Thomas’s 1906 quarry and tunnel below the Northern Walkway, using our torches to reach the tunnel end. Four young rimu trees had been planted near the tunnel and we noticed patches of *Asparagus scandens* / climbing asparagus just south of the quarry.

Brony had us on the lookout for the rare endangered pond snail *Potamopyrgus (oppidanus ?)*, which is found only on Te Ahumairangi, in damp habitats near or in little creeks. We recorded six species of native birds. We returned via a shorter route, using the Stellan Track, perhaps a former farm road, back to Puketiro Avenue.

**Participants:** Gavin Dench, Michele Dickson (co-leader/co-scribe), Jill and Ian Goodwin, Andrew Hawke, Chris Horne (co-leader/co-scribe), Mick Parsons, Leon Perrie, Bronwen Shepherd, Lara Shepherd, Sunita Singh.

### Further reading

Wellington Town Belt Act. 2016  
Wellington Town Belt Management Plan.  
August 2013.  
Tinakori Hill Landscape Plan. 2008.

## 3 August 2019: Whitireia Park: bush remnant; dune; herb-field

Whitireia Park (254 ha) is on the north end of Whitireia Peninsula. It is surrounded by sea on three sides and the Porirua suburb of Titahi Bay on the fourth.

The park has a range of ecosystem types—a bush remnant (c. 1 ha), coastal cliffs and escarpments, rocky shore, dunelands, wetlands including an estuary, and a stream ecosystem.

We visited the forest remnant to update the species list. The bush was last botanised in 2000. We entered the bush through a large area of sprayed,

but not dead, gorse which will be progressively planted with mainly local kānuka (*Kunzea robusta*) over the next 2-3 years and allowed to regenerate through the kānuka.

The forest remnant is dominated by old squat kānuka and kohekohe with titoki, māhoe, lancewood, pigeonwood, wharangi and kaikōmako. Until 2009, the bush was grazed and cattle would camp in open areas, so there were very few palatable under-storey and ground-cover species. With the cattle

removed, regeneration of local natives has flourished, however there are some large karaka trees which are producing many seedlings and are threatening to dominate the bush.

Of concern was a young Chinese fan palm, *Livistona chinensis*, although botanists on iNaturalist are arguing it is Chusan palm *Trachycarpus fortunei*. The palm was despatched by Mick Parsons and strung up in a tree.

We could not find *Lophomyrtus bullata*, *L. obcordata* or the lone *Streblus banksii* that were on the



old species list but it doesn't mean they are not still there. It was a good opportunity to brush up on fern species and we saw fine examples of *Asplenium hookeri* var. *hookeri* and *A. hookeri* var. *colensoi* growing together.



*Livistona chinensis* seedling.

Out of the bush and after lunch we had a quick look at the dunes at

Onehunga Bay. The bay was fenced off from cattle in 2006. A small area of spinifex had survived despite the grazing history but once the bay was fenced, the Whitireia Park Restoration Group (WPRG) have replaced marram with spinifex all the way along the beach and have added pinago and sand coprosma / *Coprosma acerosa*.



*Leptinella nana*. Illustration: Eleanor Burton.

There are two sites of *Leptinella nana* in the park, 300 m apart on the top of the cliffs. This little herb is classified as 'Nationally Critical'. It

is being managed by WPRG who are trying to create suitable conditions for it to spread. It has taken a while to work out its likes and dislikes in this very modified habitat. What it does like is moist but not saturated soil and light shade and disturbance to move into. We looked at the *Leptinella nana* at Site 1 where there are two main areas of it covering about 1 m<sup>2</sup>.

**Participants:** Peter Beveridge, John Bluemel, Kim Broad, Eleanor Burton, Lisa Casasanto, Gavin Dench, Michele Dickson, Jenny Fraser, Ken Fraser, Ian Goodwin, Jill Goodwin, Richard Grasse, Chris Hopkins, Chris Horne, Kate Jordan, Alison Lane, Kathryn Maloney, Rachel Maloney, Lydia Metcalfe, Mick Parsons, Leon Perrie, Lara Shepherd, Sunita Singh, Robyn Smith (leader & scribe), Jon Terry, Mark Wendleken, Carol West, Julia White.



*Leptinella nana*.

# EVENING MEETING REPORTS

## 20 May 2019: Members' Evening

### Val Smith

In 2018 Val published the *Supplement* to her earlier book *Common Ground – Who's who in New Zealand botanical names* (2015), described the research she enjoys doing into the lives of people whose names are commemorated by being included in the botanical names of plants they were associated with.

My interest in native plants began with a fascination for the red and black titoki fruit seen on an early primary school nature study outing. A fifth form geography trip to Taranaki/ Mt Egmont triggered a lifelong love of bush and alpine areas, and after becoming aware of native orchids, observing and photographing them became a passion. Membership of the New Plymouth Tramping Club, the Forest and Bird Society, the New Zealand Native Orchid Group and the Wellington Botanical Society, gave me new opportunities to further my growing interests. As I learned more about our native plants I became curious about the people commemorated in many of the botanical names. Drifts of *Ranunculus lyalli* flowering profusely near Temple Basin in 1993, and the probability of Lyall being a ship's doctor, prompted further investigation and my all-absorbing retirement project.

In 2011 I began submitting articles for publication. Then, with financial support from the Wellington Botanical Society Jubilee Award and the George Mason Trust, two hundred copies of *Common Ground: who's who in New Zealand botanical names* were printed, and donated or sold, including five to botanical libraries overseas. A recent small print run has made a few copies of *Common Ground* again available for sale.

The new *Common Ground Supplement* (2018) embraces the stories of a further hundred people honoured in botanical names of New Zealand flowering plants, ferns, seaweeds, mosses and lichens. The personal and scientific knowledge that has survived centuries of war, plague and famine in Europe and elsewhere is amazing. However, more

than 200 years passed before the true identity of the person commemorated in the genus *Schefflera* was resolved. Meanwhile in 1945 New Zealand bryologist G O K Sainsbury described a central North Island moss, naming it after "Mr H M Spencer, a companion on many collecting expeditions". It seems that already (and within my lifetime) information about the recipient of the honour is lost. The search continues!

### Common Ground

WHO'S WHO  
IN NEW ZEALAND BOTANICAL NAMES

Supplement



Val Smith

### Owen Spearpoint

Senior Environmental Monitoring Officer, Greater Wellington Regional Council

Owen spoke about his work monitoring the condition of wetlands and streams in the Ruamahanga Valley in the Wairarapa and on the Kāpiti Coast. He is now working in the Hutt and Porirua catchments.

### Chris Moore

Bristlecone pine, *Pinus longaeva*

In September 2018 friends invited me to visit the Ancient Bristlecone Pine Forest east of San Francisco near the border with Nevada. The forest is near the small town of Bishop. It rises to 3,400 m.

The harsher the conditions the longer these trees survive. They are especially long-lived in dry, dolomitic soils, on south-facing slopes. The needles are retained for 3 or 4

decades. The cones roll away from the trees and often collect in gullies. Very few other plants survive at the higher altitudes, so the end result is that there is little or no detritus between the trees.



*Pinus longaeva* / Bristlecone pine.

Bristlecone pines are the oldest living non-clonal organisms in the world. One tree, Methuselah, was alive when the great Egyptian pyramids were being built about 2610 BC. The oldest tree, which is un-named, is over 5,000 years old. The location of the older trees is kept secret to protect them.

The pines are very slow growing (up to 15 cm after 40 years) and a microscope is required to read the tree rings of which there can be over 4 per mm. The varying spacing between the rings has been used to determine past climate conditions. (This is the science of dendrochronology.) In the harsh dry environment dead wood can survive for millennia. By matching the tree rings on living and dead pines a chronological period of 8,000 years has been achieved.

It was thoroughly enjoyable, but humbling experience, to be amongst these wonderful, gnarly, ancient trees.

### Jon Terry

Jon described his observations at Miranda on the Firth of Thames, in salt marsh near Tauranga, and in salt marsh in Pāuatahanui Inlet, Te Awaroa o Porirua Harbour.

## Jill Goodwin

Jill gave a reading from 'The voyages of Captain James Cook' (London; William Smith, 1846) Vol 1, Book 2, Chap 8, pp 183-184:

Chapter 8 is titled 'A general account of New Zealand; its first discovery, situation, extent, climate, and productions'; and Cook does tend to see all the botanical items in terms of their productiveness, or usefulness.

He praises the trees for being the straightest, cleanest, and largest timber that they had ever seen; he says their size, grain, and apparent durability make them useful for any kind of building, and for other purposes, but not masts, as he thought they were too hard and too heavy.

He praises a tree with beautiful scarlet flowers (pōhutukawa); and

another tree bearing berries in small bunches, he thought suitable for its potential use in mast-making (kahikatea?).

He was not so impressed by the 'eatable vegetables', but he and his men did eat wild celery, cresses, fathen, cabbage tree, fern root, and one other vegetable which they found 'extremely disagreeable'. He found three cultivated plants – yams, sweet potatoes, and cocos (?). He thought that any ship would be able to purchase a quantity of the yams and potatoes, which grew in plantations of many acres.

Cook briefly mentions gourds, and the 'Chinese paper mulberry tree', before going on to dismiss any fruits and berries as not being at all palatable.

He praises the qualities and usefulness of what came to be called

flax, and notes its many uses, and the possibility that it could be planted and flourish in England to great advantage, as it seemed to be hardy, and happy to grow in all situations. A footnote in this 1846 edition states that in 1831 1,062 tons of prepared flax was shipped to Sydney, and thence to England.

## Chris Horne

Chris displayed a cross-section of a kawakawa branch showing the medullary rays. He then read from *Wellington's Living Cloak – A Guide to the Natural Plant Communities*. (Isobel Gabites. Victoria University Press. Wellington Botanical Society, 1993), p 46-47 about how what is now the 700-ha Te Kopahou Reserve includes “...fragments of coastal forest ... thirteen regionally or nationally threatened species”.

## 15 July 2019: Butterfly night

A capacity audience of Wellington Botanical Society members plus local entomologists were lulled out of their winter depression on Monday 15 July by a burst of excitement and colour from butterfly enthusiast Brian Patrick. The title 'Nature's rainbow – discovering NZ's exciting butterflies' gave Brian the all clear to wax lyrical about the revelations he and son Hamish have been able to achieve by critically sampling and examining the diversity that exists among our long-known butterfly fauna.

Ever since the first endemic butterfly species was collected by Joseph Banks and described by Fabricius in 1775, there has been discussion about exactly how many butterfly species are native to our isolated islands, here in the Southern Ocean. The argument is refuelled from time to time by a one-off discovery of some foreign species being picked up alive. In fact, just a few days after Brian's talk, the total rose by one when a Lincoln University colleague sent him a report that there was an *Agalais urticae* / European small tortoise-shell butterfly, fluttering around his desk that morning. Just what do we mean by butterfly diversity? In my day we recognised a total of 23 species but that included a number of waifs and strays that could never be claimed to actually live here. Now, from Brian's talk, we find that his total has risen to

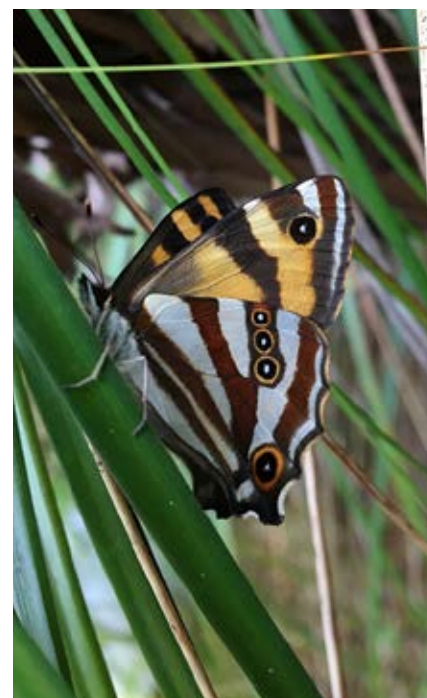
57.

More important is the diversity that is endemic to New Zealand. And it is here that we can congratulate Brian and Hamish for their years of intensive collecting of the fauna over the past few decades—with Hamish initiating a molecular study of the variation.

To bring the species statistics to life for this audience, Brian addressed the relationships between butterfly food-plants and butterfly taxonomy. Most are probably aware that the admirals are nettle-feeders (not as strongly favoured for classroom education as the ubiquitous monarch butterfly), but did you know that the bright little copper butterflies are addicted to *Muehlenbeckia*? Knowledge of this kind certainly helps find where they are living and breeding. Likewise, the ringlets which are bound to tussocks and sedges.

One important consequence of Brian's work has inevitably been the revelation of more 'at risk' species, the sort that are confined to a particular camp ground. Here Brian's previous life as a DOC Ranger had been invaluable and leads me to a project that is very dear to my heart since it is taking place in my own back-yard. The gorgeous forest ringlet, *Dodonidia helmsii*, is a medium-sized endemic species that is losing its grip in regions close to urban development.

I had found it commonly on the Eastbourne hills in the 1970s but it is now extinct except for a few final stragglers on the summit ridge at Mt Lowry. The food-plant is thriving but the annual supply of caterpillars has gone. Its decline was first reported in Auckland's Waitakere Ranges where again the *Gahnia* sedges are thriving but without butterflies. Yet it survives on Hauturu / Little Barrier, Great Barrier, the Coromandel Peninsula and the Tararua Range.



Forest ringlet. Photo: Department of Conservation/Brindle Crystal © CC BY.

The unanswered question is— what is the agent of its decline? With birds and most of our conservation issues there is a clear relationship between predator and prey – cause and effect leading to certain practical steps that can be taken to reduce the impact of “pests”. What can be done in the case of a widespread insect that feeds on a common plant in a habitat that is apparently not seriously damaged? The Moths and Butterflies NZ Trust, formerly just Monarch Butterfly Trust, has raised funds and is actively consulting overseas conservation experts with more experience than we have. Prevailing wisdom among entomologists is that a wasp may be involved, maybe the vicious European wasp as a direct predator on caterpillars, or even a tiny parasitoid wasp that was introduced for its potential role in insect biocontrol. Climate change? Probably not.

At present there is a serious attempt to rear the butterfly in captivity so that more can be understood of its life cycle. The great unknown is how the half-grown caterpillars survive the winter. They disappear off the sedge foliage in late autumn when about 6-8 mm long; reappearing again in spring to resume feeding and reach maturity of 38 mm at about New Year. No captive rearing effort to date has achieved successful winter survival. Butterflies fly in January-February, ranging widely, not confined to small food-plant patches like the coppers.

At present, the species as a whole is not under threat – only those populations close to cities. Its overall distribution extends from just south of Whangarei to Greymouth. I would like to think that Wellington Botanical Society members are aware of this non-ornithological crisis in our insect conservation efforts. Anyone with questions or an observation that might be relevant is invited to respond to me or to Jacqui Knight, MBNZT.

*George Gibbs [george.gibbs@vuw.ac.nz](mailto:george.gibbs@vuw.ac.nz)*



# 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 2020 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 make your cheque payable to Wellington Botanical Society Inc, and send it with this form to:

**Wellington Botanical Society Inc., PO Box 10 412, Wellington 6143**

My cheque is enclosed for Ordinary membership \$.....

Country membership \$.....

Student membership \$.....

Group / family membership \$.....

Donation \$.....

TOTAL \$.....

Alternatively you may pay direct to the Society's bank account 020536 0017812 00

and e-mail this completed form to the Treasurer at [harlea@actrix.co.nz](mailto:harlea@actrix.co.nz)

## 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.*

# Wellington Botanical Society – Summer Fieldtrip

In: 16 January 2020, out: 23 January 2020.

Based at Lonsdale Park, between Kerikeri and Kaeo

**Completed forms and deposit to be in on, or by, 18 November—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 Lonsdale Park:  16 Jan  17 Jan  18 Jan  19 Jan  
 20 Jan  21 Jan  22 Jan

---

Type of accommodation required:  Bunk accommodation (in 2 x 12 to 17-bunk lodges), \$15/person/night.  
 Tent site \$15/person/night.  
 I/we will be making my/our own arrangements.

---

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

We are exploring the option of hiring a van from Whangarei airport. Please indicate if you are interested but note that we will only proceed if there is enough interest to make it a viable option AND we have someone who agrees to drive.  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?  Yes  No

---

## Payment

Estimated cost per person: \$400. (This applies both to those who are bunking or camping.)

Please check one of the following boxes and make payment as specified:

By Cheque: please make cheque out to Wellington Botanical Society and send it with the completed Registration Form to: Lara Shepherd, 26 Thane Rd, Roseneath, Wellington 6021.

By Electronic Funds Transfer: please make the deposit to the Society's account:  
**020536 0017812 02** citing your name(s) in the particulars/reference boxes of the payee section.

Notes for e-mailing the completed Registration Form:

1. Download the form from the bottom of the BotSoc Trips web-page at: (To fill in the form's check boxes, double left click on it and click on the "Checked" button.)  
[http://www.wellingtonbotsoc.org.nz/trips\\_2019.html#camp](http://www.wellingtonbotsoc.org.nz/trips_2019.html#camp)
2. E-mail to Lara Shepherd at [lara.shepherd@tepapa.govt.nz](mailto:lara.shepherd@tepapa.govt.nz)

Notes for posting the completed Registration Form:

1. Print off a copy of the form from the newsletter, or download from the above web site.
2. Fill in as appropriate by putting an X in the required check boxes.
3. Post the form with your cheque to Lara Shepherd's above home address. (Cheque not required if payment already made by Electronic Funds Transfer.)

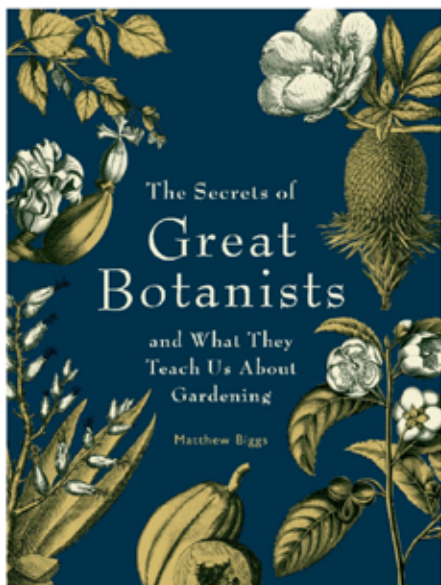
**Deposit:** \$400.00

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.

# The Secrets of Great Botanists

And What They Teach Us About Gardening

MATTHEW BIGGS



**35 revolutionary botanists. Discoveries that made the world bloom. Learn from their legacies with this inspiring guide**

Botanists have been the trailblazers in discovering how plants work to benefit our species, collecting many of the plant-species we find in our gardens today from all around the world. This informative and beautiful guide presents the stories and reveals the secrets of 35 of these botanists, plant collectors and gardening pioneers of the past and present. This includes Joseph Banks (James Cook's botanist on the *Endeavour*) and Georgiana Molloy (one of the first botanists in the Swan River Colony in Western Australia) highlighting the qualities that brought them success. Every botanist included in *The Secrets of Great Botanists* was, or is, passionate about their particular specialty. Whether they were searching for plants in wild places, prescribing herbal medicines or forming new structures of plant classification, they were driven by an insatiable desire to learn and discover, so that we, as humans, might benefit from improved crops, medicines or gardens. Through the vibrancy of botanical photographs and beautifully illustrated period botanical watercolours, this book aims to teach readers about the observations, ideas, secrets and discoveries of these ground-breaking botanists. Their influence on gardening and the wider world will provide inspiration and practical guidance for budding gardeners of all levels and inspire readers to try these plants and tips at home.

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## ABOUT THE AUTHOR

**Matthew Biggs** trained at The Royal Botanic Gardens, Kew, has presented numerous TV gardening programmes and is a regular on UK radio. Author of and contributor to several books and magazines, Matthew is also a highly regarded lecturer. He has travelled widely and is fascinated by global gardening.