



NEWSLETTER

December 2016

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From the President

The past few weeks have seen many of us gain a new appreciation (and fear!) of our tectonically active country. Not surprisingly, reports of the earthquake's impacts on our ecosystems have focused on animals. What about the plants? Past research has shown that tree deaths may occur immediately as a result of shaking or landslides, and that some of the trees that survive the initial 'quake die in subsequent years. However, it is not all bad news – tree-ring cores have shown that many of the plants that do survive show boosted growth from increased availability of light and nutrients, and the new habitats created offer opportunities for regeneration. This research shows that major earthquakes are an important factor in driving forest dynamics in tectonically active regions.

As the year comes to an end, I'd like to thank all our speakers, trip leaders and the committee for their efforts.

Lara Shepherd, President

Subscriptions

For those members who have not already paid their subscription, invoices are included with this newsletter, or will be e-mailed.

The annual rates remain unchanged as follows:
Ordinary \$35; country \$30; student \$10; joint/group/family \$40.

Please pay direct to Wellington Botanical Society Inc account 020536 0017812 00, with your name as reference, and sub as code, or alternatively send your cheque to Wellington Botanical Society Inc (Treasurer), PO Box 10-412, Wellington 6143

Best wishes for the summer season.

Lea Robertson, Treasurer

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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.

Articles for web site

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

www.wellingtonbotsoc.org.nz

Please send your article to:

Richard Herbert

e-mail herbert.r@xtra.co.nz

Writing for the Bulletin

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

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.

DEADLINE FOR COPY FOR NEXT ISSUE – 20 April 2017

Articles may be edited for clarity and length

ATTENDING FIELD TRIPS AND EVENING MEETINGS

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, sunita@actrix.co.nz, ph 04 387 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.
- *cancellation advice, if bad weather prevents the trip being run.*

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 to 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 your name on the exterior*), lunch, biscuits or scroggin, hot or cold drink, spare clothing, personal first-aid kit, note-book, pen, pencil, cell-phone, wallet. *Optional:* walking pole, clip-board, map or park brochure, camera, binoculars, hand-lens, sun-block, sun-glasses, insect repellent, whistle, toilet paper.

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, ground-sheet, 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.
- 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

Permits for collecting plant specimens can be sought from territorial local authorities, regional councils and the Department of Conservation for lands they manage. If no one in the party has a permit for the relevant site, specimens should not be collected. If the field trip is on private land, permission must be sought from the land owner.

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

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

Meetings

Public transport to meetings

The following bus services stop on Kelburn Parade, about 50 m up it from Victoria University's Murphy Building Lecture Theatre MYLT101:

TO MEETINGS

No. 23 Mairangi: depart Houghton Bay 6.30 p.m., Hospital 6.42, Courtenay Place 6.49, opposite Supreme Court 7.00, University 7.05.

No. 23 Mairangi: depart Southgate 7.00 p.m., Hospital 7.17, Courtenay Place 7.22, opposite Supreme Court 7.34, University 7.39.

No. 22 Southgate: depart Mairangi 7.00 p.m., University 7.13.

No. 17 Railway Station: depart Karori Park 6.35 p.m., University 6.52.

Cable Car: 00, 10, 20, 30, 40, 50 minutes past each hour from Lambton Quay terminus. Alight at Salamanca Station.

FROM MEETINGS

No. 23 Southgate: 9.12 p.m. & 10.10 p.m. from University.

Cable Car: ca. 01, 11, 21, 31, 41, 51 minutes past each hour from Salamanca Station. Last service 10.01 p.m.

For further information ring Metlink, 0800 801-700.

FIELD TRIPS AND EVENING MEETINGS: FEBRUARY–MAY 2017

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 11 February: Field trip

Botanise around the loop track in this regionally significant kohekohe / nikau coastal forest remnant. See also kiekie, pukatea, astelias, small-leaved milk tree, etc. Meet 9.30 a.m. at the reserve's parking area, immediately east of SH1. Take the Lindale Interchange, just north of Paraparaumu over-bridge. Turn left off Nikau Valley Rd - the parking area is a short distance north. Maps: NZTopo50-BP32, Paraparaumu; street map. If you would like a lift from Wellington, or to be met at Paraparaumu Station, please ring the leaders. Leaders: Chris Horne 475 7025, Barbara Mitcalfe 475 7149.

Monday 20 February: Evening meeting

Melanie Dixon, Consultant Ecologist, Trustee of the National Wetland Trust, and swamp fanatic, will talk about wetlands in the lower North Island. The area has a surprisingly diverse array of wetlands. Melanie will provide an introduction to these wetlands, why they are important, and what threats they continue to face. See in this newsletter: *The Untold Story of New Zealand's wetlands*.

Barry Hadfield Nikau Reserve, Paraparaumu

An introduction to seaweeds, looking at what is common on Wellington's south coast. We'll deal in the basics: if you already know *Carpophyllum* from *Cystophora*, you'll be qualified to help (and even replace) the trip leader. Otherwise, bring your camera, drawing pad, or whatever else you use to record your botanical discoveries. If you can, please bring a seaweed book (such as Wendy Nelson's *NZ seaweeds: an identification guide*) and/or a printout of NIWA's free *Beautiful Browns* guide (<https://www.niwa.co.nz/coasts-and-oceans/marine-identification-guides-and-fact-sheets/beautiful-browns>). We won't walk far, but sturdy footwear is essential for the coastal rocks. Meet: 10 a.m. near toilet block, Te Raekaihau Point (between Island Bay and Lyall Bay). Maps: NZTopo50-BQ31 Wellington; street map. No. 23 Houghton Bay bus: Mairangi 8.15 a.m., WN Station Stop A 8.36, Courtenay Pl 8.44. Alight at terminus and walk east along The Esplanade to meeting place. Leader: Leon Perrie 027 419 1378.

Wetlands in the Wellington Region

Seaweeds for beginners

Monday 20 March: Evening meeting

Speaker: Frances Forsyth, generalist ecologist with specialties in streams and restoration. Campus trees: what's there, what's not, what's lost, what's losing the battle and why? Plus does the campus community care about campus green space? What do they want more of and less of, and can the green space be managed for both biodiversity and social needs?

Biodiversity plan at Victoria University

Saturday 1 April: Field Trip

Botanise along the ridge and bush edge south from Mt Kaukau to above Ngaio / Crofton Downs. Access is 4WD track from 109 Rifle Range Rd, Ohari Valley. We will walk back along the top to the cars. Meet at 109 Rifle Range Rd at 9.30 a.m. Map: NZTopo50–BQ31 Wellington. If you would like a lift from Johnsonville Station, contact the leaders: Eleanor Burton, e-mail trots@paradise.net.nz, ph 021 058 8324, or Jane Humble, jhumble16@gmail.com.

Kaukau and Te Wharangi ridge to south

Monday 10 April: Evening meeting Thomas Kirk (1828–1898): leading botanist for 30+ years, but often overlooked today

Speaker: Bev Abbott, a long-time member and BotSoc's submissions coordinator, will draw on published and unpublished material to tell us more about Kirk's contribution to NZ botany, and the challenges he faced in becoming "a leader of botanical thought in the Colony" (Cockayne, 1921). **Note:** This meeting is on the *second* Monday in April.

Saturday 6 May: Field trip

Mystery surprise trip to the Wairarapa

Come on what will be a surprise trip into the Wairarapa to botanise either a wetland, *or* a forest, *or* the coast. Check our web site in early 2017 for further details of what promises to be a special treat. Leader: Owen Spearpoint 027 285 8083.

Monday 15 May: Evening meeting

Members' evening

Please share your botanical slides and photographs taken on BotSoc trips, your paintings and drawings, and your favourite botanical readings. Slides, on a USB stick, limited to 20 per person. For a gold-coin koha, or even 'folding money', buy one or more books we put on display, and help build up the Jubilee Award Fund which is used to support research on NZ plants. Plant specimens to sell, or to discuss, would add to a memorable evening. Please donate any spare botanical or other natural-history books, so we can build up a collection to auction at a future meeting, to raise funds for the Jubilee Award Fund.

EVENTS

- **First Saturday each month. Otari-Wilton's Bush Trust plant-care workbees.** Meet 9 a.m., Information Centre, 160 Wilton Rd, Wilton.
Leader: Wilbur Dovey 499 1044.
- **Monthly. Baring Head, East Harbour Regional Park.** Workbees—pest-animal control, pest-plant control, planting, etc.
Colin Ryder, 478 4391, or e-mail rydercj@xtra.co.nz, or become a friend on Friends of Baring Head Facebook page.
- **To 31 December. Augustus Hamilton and the gold-spangled butterfly.** Our national museum's second director was an ethnologist with broad interests in natural sciences. Te Papa turned 150 years old on 8.12 2015. To celebrate 150 years since the opening of the Colonial Museum in Wellington, the exhibition named "You called me WHAT?!" is on Level 3, Te Papa. Colin Miskelly.
Te Papa Tongarewa, Cable St, WN.
- **To 8 January. FERNZ: An exploration of Pteridophyta & the Kiwi icon.**
Waikato Museum, 1 Grantham St., Hamilton.
- **17–27 January 2017. University of Canterbury summer course.** Practical Field Botany (BIOL305). Intensive course in the collection, preparation & identification of botanical

specimens. Venue: Cass Mountain Research Area, Canterbury. Enrolment began 6 October.

Dr. Pieter Pelser (pieter.pelser@canterbury.ac.nz; 3-364-2987 ext 45605)

- **29 January. Botanical graves.** Meet 2 p.m., Otari-Wilton's Bush Information Centre, 160 Wilton Rd, Wilton.
Leaders: Bev Abbott, Chris Moore, Rodney Lewington.
- **To 12 February. NZ Tree Project Exhibition.** 'If we never met.' Pataka Art + Museum, 17 Parumoana St, Porirua.
- **26–27 February. BioBlitz, Karori Sanctuary / Zealandia' Waiapu Rd, Karori, WN.** 26.2—families & children; 27.2—schools. Ph: 920 9200.
- **29 February. NZ Botanical oddities.** Meet 2 p.m., Otari-Wilton's Bush Information Centre, 160 Wilton Rd, Wilton.
Leader: Roy Slack.
- **March. Tuesday seminars.** Speakers to be arranged. Otari-Wilton's Bush Information Centre, 160 Wilton Rd, Wilton.
- **26–31 March. Auckland Botanical Society Camp, Pōkaka, National Park.**
Mike.Wilcox@xtra.co.nz

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

PUBLICATIONS

1. **Climate change and agriculture – understanding the biological greenhouse gases.** Parliamentary Commissioner for the Environment. 2016. A4, 100 pp.
 - www.pce.parliament.nz
- 2a. **Predator-Free 2050.** 9/16. A4 6 pp.
- 2b. **Taputeranga Marine Reserve, Wellington south coast.** 2015. A3 brochure.
 - *Department of Conservation.*
- 3a. **Open Space.** 91 10/16: Wallaby, rabbit, pine & woolly nightshade control; Court of Appeal reconfirms covenant status; moths' study; merits of *Muehlenbeckia australis* / pōhuehue; the role of pūriri; Chair & Chief Executive's report; Wellington region has 353 covenants totalling 6,325.6 ha; nation-wide there are 4,226 approved covenants covering 166,699.4 ha; recent covenants: Hutt City—12.48 ha lowland modified secondary forest; Porirua City 5.05 semi-coastal primary forest remnant; etc.
- 3b. **Weedbusting tips.** A compilation of weed articles published in *Open Space* magazine. 2016. A4 16 pp.
 - www.openspace.org.nz
4. **Landcare Research Soils Portal.**
 - <http://www.landcareresearch.co.nz/about/news/snippets/soils-portal-just-got-better>
5. **Centre for Biodiversity & Restoration Ecology.** 10th anniversary. A5 16 pp.
 - *Victoria University of Wellington, Box 600, WN.*
6. **Trilepidea.** 153 8/16: Henry E Connor; *Clematis afoliata*; Riparian Planner on-line tool; eco-sourcing of plants – what, why, where, and how; Coastlands Plant Nursery, Bay of Plenty; NZ Indigenous Flora Seed Bank (NZIFSB) – seed collecting with UK National Tree Seed Project; etc. 154 9/16: NZIFSB seed cleaning in Otaki; *Microsorum scandens*; NZIFSB seed collecting workshop 30-31.10.16; Conservation Week activity; new species of *Asplenium*, *Carex*, *Corybas* & *Gastrodia* described; etc. 155 10/16: President's report to NZPCN AGM; *Abrotanella caespitosa*; northern & southern rātā—information sought re flowering patterns; NZIFSB—French connection; Global Partnership for Plant Conservation; what is *Corybas trilobus*?; *Corybas* "trotters" research; does Rapid 'Ohi'a Death pose a risk to NZ *Metrosideros*; etc. 156 11/16: NZPCN's new council; NZPCN Award winners, including Tony Silbery, Individual Award winner; *Zotovia acicularis*; NZIFSB yearly review; Alexandra seed-collector workshop 30-31.10.16; Wellington seed-bank workshop 5-6.12.16; etc.
 - *NZ Plant Conservation Network, Box 16 102, WN 6242. info@nzpcn.org.nz*
7. **NZ Botanical Society.** 125 9/16: *Senecio dunedinensis*; Dr John Dawson wins Allan Mere Award; extreme climatic factors the origin of divarication; Henry E Connor (1922–2016); Neville Taylor Moar (1926–2016); George Osborne King Sainsbury (1880–1957); *Flora of the Cook Islands* by Bill Sykes; book review—*Alien Plants* by C A Stace & M J Crawley. London. 2015; etc. 126 12/16: *Myosotis rakiura*; Dr John Dawson receives Allan Mere Award; 5 new species of spider orchids / *Corybas* separated from *C. trilobus* agg.; *Gastrodia cooperae*; *Carex applanata*; *Asplenium lepidotum*; Dominic Harewood Lascelles Corrigan (1874–1962); etc. Sub. \$25, reducible to \$18 if paid by 28.2.17. Back issues \$7 ea.
 - *NZBS, c/- Canterbury Museum, Rolleston Ave, CH 8013.*
8. **Auckland Botanical Society.** 9/16: Waikumete gumland protected; short forms of *Apodasmia similis* sought; etc. 10/16: diversity in *Parmotrema*—lichenised fungi; etc. 11/16: environmental impacts of honey bees; boneseed—Rangitoto Island; F&B Matuku Reserve extended; etc.
 - *ABS Box 26 391, Epsom, AK 1344. https://sites.google.com/site/aucklandbotanicalsociety/*
9. **Canterbury Botanical Society.** 12/16: The Untold Story of NZs wetlands—talk by John Preece—see article in this newsletter; etc.
10. **Nelson Botanical Society.** 12/16: Anniversary weekend camp, Arthur's Pass, Friday 27–Monday 30 January. Leader: Shannel Courtney.
- 11a. **Otari-Wilton's Bush Trust.** 9/16: Chair's & staff reports; new Trust board; Karin van der Walt, Conservation & Science Advisor; predator reports & cat monitoring; predator-free programme; visit by Curator, NZ Collection, Royal Botanic Gardens Victoria; *Brachyglottis kirkii*; etc. 12/16: Chair's & staff reports; Otari-Wilton's Bush calendar—\$15, 11 a.m. – 4 p.m. at weekends; lizard survey; waterfalls in 'Ferguson's Creek'; proposed new track in Trelissick Park; *Pseudowintera insperata*; etc.
- 11b. **Otari-Wilton's Bush 2017 calendar.** \$15, available at Information Centre, 11 a.m.–4 p.m. at weekends.
 - *OWBT, 160 Wilton Rd, Wilton, WN 6012.*
12. **Friends of Wellington Botanic Garden.** 9/16: President's and manager's reports; Otari confirmed as an RNZIH NZ Gardens Trust six-star Garden of International Significance; Wellington Botanic Garden registered with Botanic Gardens Conservation International, and the International Agenda for Botanic Gardens in Conservation; *ex situ* conservation work with *Pimelea actea*; myrtle-rust monitoring; food, fibre, medicine and construction plants being raised for Children's Garden; etc.
 - *FoWBG, Box 28 065, Kelburn, WN 6150. www.friendswbg.org.nz*
13. **Gorge Gazette.** Trelissick Park Group newsletter.
 - www.trelissickpark.org.nz
14. **Forest & Bird.** 361 Spring 2016: work begins on developing a National Policy Statement on Indigenous Biodiversity; Ruataniwha Dam proposal; Predator-Free NZ; *Olearia gardneri* found on Wairarapa farm; NZ's largest northern rātā is in Akatarawa Forest; Nature Heritage Fund's 25th anniversary; etc. 362 Summer 2016: proposed Waitaha River hydro scheme, Westland; F&B wins Court of Appeal bid re protecting Ruahine Forest Park conservation land from commercial interests; forest ringlet butterfly faces extinction; tourism threatens natural values of national parks; F&B defending nature in the courts; cleaning the Waikato and Waipu rivers; Kevin Hague—new chief executive; mudfish; protecting Auckland's Motu Manawa wetland; geckos on Mana Island; proposed wilderness on Rakiura / Stewart Island; Zealandia turns 21; etc.
 - office@forestandbird.org.nz
15. **Pipipi.** 44 11/16: 1st edition in colour!; council damages roadside vegetation; red & black beeches; tomtits; falcons; *Hoheria angustifolia* / narrow-leaved lacebark; companies & organisations contribute to Hinewai through CarboNZ Permanent Forest Sink initiative on climate change; *Aciphylla subflabellata* / wild spaniard; *Gentianella grisebachii*; etc. Donations to Maurice White Native Forest Trust welcome.
 - *Hinewai Reserve, 632 Long Bay Rd, RD3, Akaroa.*
16. **FMC Bulletin.** 205 8/16: Wangapeka Track downgrade; proposed Haast-Hollyford highway; etc. 206 11/16: DOC's work, and working with DOC; Waitaha River hydro-electric proposal; tourism pressures; DOC underfunding; kea under threat; Coromandel Forest Park—concession sought for private road; etc.
 - *FMC Box 1604, WN 6140 www.fmc.org.nz*

Taputeranga Marine Reserve

If you see any conservation-related illegal activity, call

DOC HOTLINE
0800 362 468

For Search & Rescue—call 111

All other enquiries to your local DOC office or visit our website www.govt.nz

 Department of Conservation
Te Papa Atawhai

New Zealand Government

- 17a. **Tararua Annual.** 2016: Conservation, tree planting, weeding at various sites ; etc.
- 17b. **The Tararua Tramper.** 12/16: *Pneumatopteris pennigera* / gully fern / pākau; etc.
- Tararua Tramping Club, Box 1008, WN. www.ttc.org.nz
- 18. **Zealandia Annual Report 2015/16: Highlights.**
- 19. **Mosses, Liverworts, Hornworts and Lichens – A guide for beginners.** \$12.
 - Available only at BotSoc meetings—limited stocks.
- 20. **Allan Cunningham's Precursor to the flora of New Zealand.** Compilers: Peter Heenan, Brian Molloy, Jeremy Rolfe. Publication date early 2017. Pre-publication price \$40 incl. GST & postage until 5.1.2017. After that, the price will increase to \$50.
 - Order book from NZ Plant Conservation Network [online shop](#), or by completing form on flyer at end of newsletter.
- 21. **Willdenowia.** 46.2 8/16. Annals of the Botanic Garden & Botanical Museum Berlin-Dahlem.
 - Available on loan from BotSoc.

NOMINATIONS CALLED FOR

16 December. Nature Heritage Fund vacancies 2017.

Information on NHF, and nomination forms:

- www.nhf.govt.nz

16 December. Game Animal Council appointments 2017.

Nominations are sought from people with nature conservation and scientific knowledge, among other disciplines. Information and nomination form:

- www.doc.govt.nz/gameanimalcouncil/

13 January. Conservation Board vacancies. Information on conservation boards, and nomination forms:

- www.conservationboards.org.nz

27 January. NZ Conservation Authority vacancies. For information on the NZCA, and nomination form:

- www.conservationauthority.org.nz

SUBMISSIONS CALLED FOR

16 December. Tongariro National Park Management Plan – Partial review. Topic: Whether to provide for additional shared walking and cycling tracks in three locations in the park.

- www.doc.govt.nz/tnppm-partial-review

20 December. South East Marine Protection Forum proposal to protect Otago's south-eastern ocean marine habitats.

- www.forestandbird.org.nz/SEMPA
- <https://south-eastmarine.org.nz>

Conservation and Environment Science Roadmap Discussion Paper

For too long, politicians have expected scientists to deliver sound scientific advice on complex issues at short notice. This Discussion Paper is part of an initiative to identify the priorities for research in the spheres of conservation and the environment that will be conducted over the next twenty years to support decision-making for conservation and environmental policy and management.

The paper was the result of targeted engagement with science and policy organisations, key stakeholders and tāngata whenua, under the oversight of a Strategic Advisory Group chaired by the Prime Minister's Chief Science Advisor, Sir Peter Gluckman.

The input was clustered into twelve themes that covered, not just ecosystems such as freshwater, but diverse

topics including climate change, biosecurity, social and economic dimensions, Matauranga Māori, informatics, modelling and monitoring. The following extract from the “New Technologies” theme illustrates the context and challenge of policy-making in NZ today:

The introduction of new technologies involves weighing the potential risks against the benefits that may be achieved. In the case of pest management, the risks associated with genetic technologies need to be weighed against the risks of alternative management strategies (e.g., pesticides), and against the risks of uncontrolled pest invasion. Scientific evidence is key to such decisions, although society's values and perceptions of risk are also critical factors in the equation. Understanding the value that society places on various outcomes – for example being 'GM-free', pesticide-free, or retaining our native forests and birds – provides a basis for deliberation and constructive debate so acceptable solutions can be found.

Discussion Paper page 14

Research questions under the theme, Populations and Species, included:

Can overlapping climate change and species tolerance models and maps be developed to identify range effects and ongoing conservation needs so we can more proactively manage species and populations, particularly in light of the very slow ability many species have to evolve to climate change?

Our submission included twenty-six recommendations, each supported by a brief rationale. Three examples follow.

1. Increase investment in the management of NZ's taxonomic collections.

The Royal Society's Expert Panel identified this need in 2015. Specific botanical tasks include reducing the number of data-deficient and undescribed taxa of vascular and non-vascular plants, and fungi.

2. What additional endemic hotspots should be protected permanently under conservation legislation?

Heenan's 2011 analysis (using *Biodiverse*) showed only 40% of the areas that are hotspots for endemic plant species, and only 29% of hotspots for endemic genera, are on the DOC conservation estate. Implementation of biodiversity off-sets may generate new opportunities to achieve statutory protection of other hotspots.

3. Identify the priorities for emerging soil-science capabilities.

Soils are a precious and finite resource that contributes to biodiversity protection, ecosystem services (e.g., water filtration), carbon storage and economic growth. An early priority is to identify or develop accepted methodologies for assessing the current and changing status of soil biota. Many different soil-related capabilities will be required, e.g., knowledge of soil biota, ecological dependencies, such as mycorrhizal fungi, and the implications for soils and seed-banks of exotic surface vegetation, e.g., wailing pines, gorse, and hawkweed.

Next steps: Officials are optimistic that the final Research Roadmap may be approved by Cabinet by April.

Draft Strategy for Environmental Education for Sustainability 2016-2026

DOC, MfE, and the Ministry of Education, recently 'refreshed' an earlier environmental education strategy, starting with a very different vision, i.e., "New Zealanders are innovative and motivated people who work together for social, economic and environmental sustainability". Under earlier environmental education frameworks, groups such as BotSoc could be regarded as part of the environmental education sector, because we deliver education **in** the environment (our field trips), education **about** the environment (our lectures and publications), and education **for** the environment (submissions and a restoration project).

We proposed an alternative vision: "...to lift the environmental knowledge, values and skills of all New Zealanders, and support them to become active stewards of the environment now and into the future."

"Emphasising care for our biodiversity, land, freshwater, marine environment, air, atmosphere and climate" was one of twelve 'roles' in the draft Environmental Education for Sustainability (EEfS). Regrettably, however, this was the only role to mention the natural environment and natural resources.

The draft strategy is meant to be applicable to local government and businesses, as well as the education sector. We recommended developing EEfS guidelines for the 'business sector' at the sub-sector level, e.g., fishing, forestry, bee-keeping, dairying, water management, waste management, and distribution of goods.

Our submission identified the significant potential for better integration between science education and EEfS at the secondary-school level. All citizens now need to be aware of issues such as climate change and genetic resilience, and be able to evaluate associated information, and influence policy decisions.

Bev Abbott
Submissions Coordinator

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

Thank you,
The committee

New members

We welcome the following: Mrs Jenny Fraser and family, Vanessa James.

Lea Robertson, Treasurer

Presentation of the Allan Mere Award for 2016 to John Dawson

On 13 October, John Dawson was presented with the Allan Mere at an afternoon tea organised by Wellington Botanical Society. The ceremony was attended by a veritable who's who of Wellington botanists and ecologists, as well as family and friends. It was held in the Leonard Cockayne Centre, Otari-Wilton's Bush, a fitting location, given John has given many talks and tours there over the years. Anthony's kōrero to the group follows:

Tena koutou, tena koutou, tena koutou katoa

Ngā mihi nui ki a koutou

Tihei mauriora

I'm delighted to be here to celebrate the achievements of Dr John Dawson, and make the 2016 presentation of the Allan Mere. To give a little background to the award, the Allan Mere was donated by Dr Lucy Moore in 1982 to commemorate the 100th anniversary of the birth of Harry Howard Barton Allan, first Director of Botany Division, DSIR, and author of Volume 1 of the *Flora of New Zealand*. The Allan Mere is awarded annually by the NZ Botanical Society from nominations by regional botanical societies, or individual members, to persons who have made outstanding contributions to botany in NZ. The Mere is housed at the Allan Herbarium at Landcare Research, Lincoln.

The NZBS Committee voted to award the Allan Mere for 2016 to Dr John Dawson, and it is my pleasure to present this award to John today. The nomination was made by Wellington Botanical Society and supported by Katharine Dickinson (Professor of Botany, University of Otago), Phil Garnock-Jones (Emeritus Professor, Victoria University of Wellington, and Neill and Barbara Simpson of Queenstown. The nomination papers outline John's scholarly research on NZ and Pacific plants, his decades of university teaching and research supervision, his extensive community outreach and promotion of botanical

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knowledge, and his acclaimed books on NZ plant diversity and ecology. I shall read a few extracts from the nomination papers, which give some insights into the range of John's contributions:

- "John has a rare ability to engage the public and convey his knowledge, and he has never lost his enthusiasm to share."
- "I believe his books are the cornerstone achievement for which he richly deserves this award, especially the magnificent NZ's Native Trees (with Rob Lucas)"
- "I want to draw attention also to his primary research on NZ Metrosideros and Apiaceae, and Pacific Myrtaceae, his enthusiastic teaching and community outreach, and his generous support of students and visiting researchers."
- "In addition to his scholarship and expertise, John's personal qualities of calmness, kindness, consideration and generosity have earned him the respect of colleagues, students and the public."

Before presenting the Mere, I need to tell John that one of Lucy Moore's rules was that the Mere be kept safe at the Allan Herbarium, and only 'let out' for the presentation ceremonies. So John, you should make the most of holding it today! I'm pleased to say that you do get to keep a fine calligraphed certificate marking the award, as well as a bound copy of your nominators' and seconds' letters leading to the award.

Now I'd like to read out the formal citation entered into the Allan Mere Record Book:

"As an academic, John's research focused on the taxonomy of Apiaceae and Myrtaceae, along with contributions to biogeography and plant growth-form research. John exhibited a rare ability to engage the public and convey his knowledge, and wrote eight books on the ecology and identification of New Zealand plants. He inspired many to become amateur or professional botanists.

Congratulations, John, on your dedication to botany and the significant achievements you've made. I have much pleasure in presenting you with the Allan Mere."

Anthony Wright, President, New Zealand Botanical Society



NZBS President Anthony Wright presenting the Allan Mere Award for 2016 to Dr John Dawson. Photo: Chris Moore.

Reference

NZ Botanical Society newsletter no. 126, December 2016

The Untold Story of New Zealand's wetlands

John Preece's presentation to Canterbury Botanical Society's November meeting reminded everyone that wetlands still remain highly vulnerable to degradation and destruction, despite some changes in attitude over recent decades. The record is sobering—we have lost 90% of our wetlands, with some districts having lost even more, especially on private land and in the lowlands. Canterbury has an especially poor record. At an international scale, NZ has the unenviable distinction of being second (behind Italy) in overall wetland loss. Our implementation of the Ramsar Convention is poor, with no dedicated policy or legislation. Yet despite being on the slippery slope of the species / area curve, many wetlands are still being degraded or destroyed, whilst those that remain are frequently treated with disregard for their functional benefits, such as flood amelioration, nutrient attenuation and habitat opportunities. Many wetlands occur on private land where awareness and protection efforts are sparse. Even some wetlands under Crown ownership are still being degraded through inappropriate management.

Early Māori regarded wetlands as a highly important and valued resource. The attitude of early European colonists was very different; wetlands were simply regarded as unproductive impediments to agricultural development. It took only a few decades for many lowland wetlands to be drained, yet central government still provided much legislative and other support for drainage, right through to the late 1900s. Awareness is changing—audible stirrings of concern began soon after the mid-1900s, and the tide is arguably slowing, though attitudes could not yet be described as transformed. Non-binding policies and inconsistent interpretation of legislation still allow loss to continue. In 2007, the protection of wetlands was included in the government's four national priorities for biodiversity protection. Yet we are still experiencing extinctions, there is continuing fragmentation, reduction in ecosystem services, loss of mahinga kai, and loss of environmental archives. John noted that we shouldn't expect a rapid change in governmental attitude, and that a reversal would probably need protection and restoration to be driven from the ground up. On the positive side, other countries have shown that trends can be reversed – USA is now experiencing a net increase in wetland area, largely achieved through offsets and economic pressures. John also noted that Canterbury still retains some stunning wetlands, especially in the high country, e.g., there are several beautiful examples in the upper Waitaki River catchment.

Source: Canterbury Botanical Society newsletter, December 2016.

BotSoc makes awards

Hannah Buckley received the Jubilee Award 2016, for research into the genetics and ecology of pīngao / *Ficinia spiralis*.

There was only one application for a student grant. It went to Nathanael Walker-Hale for research into betalain pigments and salt tolerance in *Disphyma australe* / NZ ice plant, and *Sarcocornia quinqueflora* / glasswort. This carries on from research for which we have given grants in previous years.

Eleanor Burton

Baring Head

We have been busy at Baring Head since my report in the May newsletter. Completion of the main fence protecting the river, river flats and escarpment has enabled us to begin planting of the oxbows. Workbees in June and July planted 3,430 seedlings, and placed bait stations to target rodents in lizard hotspots. A line of Timms traps will soon be installed to complement the DOC200 traps in these areas.

The cushion-field fence mentioned in my May report has been completed, and looks really good. We will monitor what happens to the turf communities inside it, and explore the potential to reintroduce species such as *Pimelea* that have been lost from that area. Without grazing, we may have to do more weed control, but hope the turf community will become denser and able to inhibit weeds over time.

Thanks to a superb effort over several years, including by BotSoccers, we have now cleared horned poppies from the beaches along Baring Head. We have completed at least one operation along the entire coast—an objective that felt like a pipe-dream when we started grubbing out the dense infestation on the southern foreshore. In Fitzroy Bay, we are seeing only a few new plants appearing—virtually no seeds were produced last season (except on the private land). This gives us confidence that eradication is possible. Our goals this summer will be to prevent any more horned-poppy seed being produced on any of the coastline, so that we can start tackling other weeds, and encourage native recovery.

We have a new raoulia turf developing on the south coast near the Wainuiomata River mouth. We will focus on removing all weeds there, and perhaps adding some large logs to reduce sheep trampling, and provide some shelter from southerlies.

The next big problem to tackle is tree lupins / *Lupinus arboreus*. These have been spreading. We were concerned that the disturbance to the gravel caused by grubbing out poppies was encouraging lupin seeds to germinate, but there are as many, or more, seedlings in areas without poppies, so either sheep trampling has the same effect, or something else is happening. Whatever, this is now becoming an urgent problem. We have established an experimental control area to see if just cutting them at the base is enough, as the cut-and-poison method we have used is slower and more expensive. Lupins can be easily pulled out of looser gravel until they are about a year old, so that may be the best way to prevent them expanding into areas they don't infest.

A recent workbee focussed on weeding an expanding area of *Poa cita* / silver tussock near the boulders. Priority will also be given to removing tree lupins from the *Spinifex sericeus* / silvery sand grass margins, and providing access to predator traps now hidden by dense stands.

The dreaded *Senecio glastifolus* / holly-leaved senecio is beginning to appear on the property. We will remove seed heads from this weed opportunistically when we visit the site for other reasons, as it could compromise many of its ecological values if not tackled promptly.

On a more positive note, 100 *Ficinia spiralis* / pingao recently planted are doing well and seem to be established.

As always, we would welcome your help. Call me on 478 4391, or e-mail rydercj@xtra.co.nz if you are interested.

Colin Ryder
Treasurer, Friends of Baring Head

Otari-Wilton's Bush report

Kia ora koutou.

What a time we are having in Wellington with earthquakes and flooding. I hope you and your families are safe and well. We have survived relatively unscathed here at Otari, with minor damage to track surfaces that will be fixed soon.

The gardens are looking great, with all the rain we are having. Plantings done over the last six months are growing quickly, and many are in full flower. Other plants are growing well, and some of the changes we implemented in the last six months are starting to bed in.

In the lower entrance to the fernery you will see a new installation of pou (posts) marking the entrance. Wood carvers from Naenae's Menz Shed shaped the pou with representations of NZ's flora and fauna. The pou are made from timber taken from storm-damaged trees in Otari's forest.

On the conservation front, we are making good progress with the Department of Conservation (DOC), and with other botanic gardens around NZ (collectively BGANZ) towards a National *Ex-situ* Plant Conservation Strategy for NZ. In November we ran a workshop to discuss what a strategy might look like. The workshop followed a meeting held in May where DOC and BGANZ agreed to enter into an agreement in which:

- BGANZ supports DOC's *in-situ* indigenous plant conservation utilising BGANZ *ex-situ* capabilities, and
- BGANZ and DOC will work together to develop and implement a national *ex-situ* plant conservation strategy.

In future, we hope to see this work helping to co-ordinate *ex-situ* conservation activities across NZ, avoiding duplication, identifying gaps and sharing knowledge.

We have also entered into an agreement with Zealandia / Karori Wildlife Sanctuary, to work together on translocating kohurangi (*Brachyglottis Kirkii* var. *kirkii*) back in to Otari and Zealandia. We know that kohurangi once occurred in the area, and would like to see it here again. We are planning to do some planting trials early next year, once temperatures start to drop. We have applied to Victoria University to have a student work on this over summer, and it looks like we have interest from Master's degree students. This ties in nicely with plans in 2018 to release titipounamu / rifleman into Otari, in conjunction with a release into Zealandia in 2017.

Kind regards,

Rewi Elliot, Team Manager, Otari-Wilton's Bush
rewi.elliott@wcc.govt.nz

BotSoc congratulates Rewi Elliot on his election as president of the NZ Plant Conservation Network at the AGM held in The Tree House, Wellington Botanic Garden, on 11 October.

Lara Shepherd, President

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Lea Robertson, Treasurer

In memorium

Stan Butcher, 1924–2016

Stan, a long-term BotSoccer, was a member of “Dads’ Army”, the Forest & Bird group dedicated to revegetating Wellington Harbour’s Matiu / Somes Island.

Cath Matthews, 1924–2016

Cath was a long-term BotSoccer who loved field trips and the companionship they provided. Her work-a-day claim to fame was as driver of a rural-schools mobile-library truck, starting in the 1940s.

Dr Alan Esler, 1929–2016

Alan who joined BotSoc in 1960, was a well-respected botanist. Among his publications are *Botany of the Manawatu* and *Wild plants of Auckland*.

Editor



Notogrammitis heterophylla at Horoeka Scenic Reserve (see article below). Photo: Jeremy Rolfe.

TRIP REPORTS

4 September 2016: Horoeka Scenic Reserve; Tawhai Street Reserve, Stokes Valley, Lower Hutt.

We had planned to botanise the entire Tawhai Street Reserve track, then tracks in Horoeka Scenic Reserve. Following a recce, we decided to concentrate on Horoeka Scenic Reserve, and botanise briefly in Tawhai Street Reserve, and thus avoid its steep sections. The scenic location, easy access and gradients, would be beneficial for new members, along with the numerous species in diverse situations of wet gullies and drier, sunny, corners. Four participants were on their first WBS trip.

A background to the reserve appeared in the September 2012 trip report, when BotSoc joined the Friends of Horoeka Scenic Reserve. The property was once owned by Mr P & Mrs J Waddington, who protected it in perpetuity with a QEII Open Space Covenant, naming it Te Oranga Whenua. Phil Waddington developed the DOC200 rat/stoat traps, with the “Waddington Trigger”, as a result of his trap-design trials here. The

property was later sold to Hutt City Council (HCC), and gazetted as Scenic Reserve.

The Friends of Horoeka Scenic Reserve do weeding and trapping work, monitoring c. 200 traps: DOC150, DOC200 and Timms traps. They catch mostly rats, but possum numbers have risen a little this year, and recently they caught a weasel. They cut and poison Darwin’s barberry and gorse, and deal with isolated patches of montbretia and tradescantia. HCC poisons wild cherry and pine more than two tree-lengths from tracks. We saw a few *Pinus radiata* seedlings. A small infestation of chocolate vine / *Akebia quinata* has been recorded, and is being controlled by HCC. The entrance to the reserve has been attractively planted and upgraded in recent months.

In the last fifteen years, BotSoc has botanised the reserve three times, so we did not expect to make

many additions to the species lists. Observant eyes added the following: *Nertera depressa*, *Notogrammitis heterophylla*, *N. pseudociliata*, which was considered the day’s most interesting, and *Hymenophyllum franklinii*.



Notogrammitis pseudociliata.
Photo: Jeremy Rolfe.

We added the following weeds: Spanish heath / *Erica lusitanica*, English ivy / *Hedera helix*, and one plant of the fern, Cretan brake / *Pteris cretica* near the entrance.

We saw backen climbing high into trees not far in from the entrance, and abundant kahikatea seedlings were most noticeable in this area also. In the little gullies, a few carpets of dense kidney fern / *Hymenophyllum nephrophyllum* ground-cover looked healthy. We saw one *Syzygium maire* / swamp maire. In other drier places, some very large kānuka up to c. 40 cm d.b.h., towered above. A surprise on one bend is the little "Fairy House" built by the Waddingtons, at the base of a hard beech.

At the main lunch spot by a seat, we saw *Thelymitra longifolia*. Soon after Jeremy headed off to examine a gully to the east of the track, while the rest continued the short loop track down on a dry spur, where *Gahnia setifolia*, *G. pauciflora* and *G. xanthocarpa* were compared. The

seeds of a *G. pauciflora* were sucked for the raspberry-like flavour.



Gahnia xanthocarpa.
Illustration: Eleanor Burton.

White and red fruits of *Leptecophylla juniperina* provided extra subject material for photographers.

1 October 2016: Bryophyte and Lichen Workshop

This workshop was based in the Leonard Cockayne Centre, Otari-Wilton's Bush.

First we learnt to fold and label collecting packets, and to identify specimens as either liverworts or mosses. Then we went on a walk where Carol West described lichens, Peter Beveridge talked about mosses, and Rodney Lewington discussed liverworts. It took us until after 12 noon to walk round a small area of Otari, looking at plants, collecting small quantities and labelling

them, generally to genus level, but occasionally to species level. It had been wet, but for the walk it was fine, so the specimens looked their best.

After lunch, we began dissecting and compound-microscope work. We discussed the difference between sporophytes, lichen reproductive features, oil bodies and cell structure. All these characters can aid identification. Finally, we worked to identify the specimens collected during the morning. We finished at 3.00 p.m.

Tawhai St Reserve

Eleven members then botanised the Tawhai St track's lower part, running near the stream. The location is very moist and quite dark, with numerous mamaku under large, mature, hard beech. At the entrance is a patch of tradescantia near the stream. In the forest proper, an obvious difference is the presence of *Blechnum filiforme*, not seen in Horoeka Scenic Reserve. The main reason for this foray was to see the filmy fern, *Hymenophyllum flexuosum*.

Participants: Eleanor Burton & 'Mackie', Gavin Dench, Michele Dickson (co-leader), Carolyn Dimattina, Jenny Fraser, Jeremy Garret-Walker, Catriona Gower, Richard Grasse, Chris Hopkins, Chris Horne, Donna Kennedy, Alexandra McCulloch, Pat McLean, David Martin, Barbara Mitcalfe, Mick Parsons, Leon Perrie, Jeremy Rolfe, Lara Shepherd, Karin Sievwright, Sunita Singh (co-leader), Ianto Stevens, John Van den Hoeven.

Our thanks to Rewi Elliot for permission to use the Cockayne Centre, and to show and collect these small plants in Otari.

Participants: Ros Batcheler, Charles Blakiston, Susan Davey, Carolyn Dimattina, Bryan Halliday, Chris Horne, Brenda Johnston, Lesley Milicich, Barbara Mitcalfe, Allan Munro, Rose Payne, Shannon Reed, Lea Robertson, Penny Salmond, Darea Sherratt, Karin Sievwright, Sunita Singh, Julia Stace, Jon Terry, David Willyams.

5 November 2016: Rimutaka Forest Park Nga Taonga Nature Walk

Nga Taonga Nature Walk, in Rimutaka Forest Park's south-west, is a gentle 45-minute walk, on a well-formed track, near Catchpool Stream, a tributary of the Wainuiomata River. It is surprisingly rich in botanical interest, so our progress was slow; at one point we noticed that the signs told us our cars were 15 minutes away from the end, and yet we had been on the track for exactly 3 hours! We left from the car-park, walking through planted and picnic areas. There are bridges, a well-built board-walk, and informative and sturdy interpretation panels. There is one small rise, and

a couple of slightly rough patches to negotiate. We ended at the road, and strolled back to the car park.

One of the first interesting finds was by Lara, who discovered a patch of *Ophioglossum coriaceum* / adder's tongue. While not a rare fern, it is not often seen. In *New Zealand ferns and allied plants* (Brownsey and Smith-Dodsworth), it is described as: 'Much more common than is generally supposed ... often hard to spot, dying down completely in winter'. Those we saw were not fully developed, as the fertile spikes were not much taller than the sterile laminae.



Ophioglossum coriaceum. Photo: Leon Perrie

Chris Hopkins showed us *Melicytus micranthus* / swamp māhoe, another of the small-leaved divaricating plants. It is known by some for the pale blotch at the base of the leaf, and its obvious network of veins on the upper surface of the wobbly-edged leaf ('margins gently and roundly toothed or scalloped'—Hugh Wilson). It can look like a juvenile kaikōmako / *Pennantia corymbosa*.

The *Pterostylis banksii* were spectacular, along the edges of the track, and up on the banks. They were so healthy and large, that someone made the comment that they were on steroids!



Pterostylis banksii. Photo: Sunita Singh

A patch of tall tawa forest plunged us into darkness, before we came out again, and went down to a sunny spot on the stream bank for lunch. Leon was fascinated by the tiny fish he spotted, wondering if they were inanga, but saying that there weren't enough for even a small whitebait fritter.

We saw some very large old trees along the way, a large northern rātā, and a rimu of d.b.h. c. 1 m. It is surprisingly easy to miss these large trees when you have been concentrating close up on much tinier and more detailed botany.

Several members commented on what a surprisingly good track it was for botanical interest, and that they hadn't known of its presence before. We added about thirty-five plants to the species list. Compilation of this list began on the Orongorongo Track (1.8.2009), then on the Old Five-Mile Track (2.7.2016), so the result is a more comprehensive list for the Catchpool Valley.

For photographs taken on this trip, go to: http://naturewatch.org.nz/observations?on=2016-11-05&place_id=6803&q=wellingttonbotanicalsociety&subview=table

Participants: Peter Beveridge, Helen Bichan, Peter Cooper, Kat de Silva, Gavin Dench, Ian & Jill Goodwin (co-leaders, co-scribes), Bryan Halliday, Chris Hopkins, Chris Horne, Rodney Lewington, Barbara Mitcalfe, Tony Payne, Leon Perrie, Lara Shepherd, Darea Sherratt, Karin Sievwright, Sunita Singh, John Van den Hoeven, Julia White.

3 December 2016: Manganui Station, western Wairarapa

This trip was planned to last two days, with an overnight stop at Sunita's Ocean Beach bach, but floods and 'quake damage prevented our botanising Mukamuka Stream.

We thank Neville Davies, Manganui Station Partnership Ltd, for permission to botanise the property, Pat Enright for an extensive plant list, Mick Parsons for lending us his 4WD ute, and Sunita Singh and Gavin Dench for doing an inspection of the ford the day before the trip, and use of their 4WD vehicle on the day.

Although the lower part of the property has several small wetlands with interesting plants, e.g., *Gratiola sexdentata*, *Gunnera monoica*, *G. prorepens*, (red and yellow fruit-forms), *Ranunculus amphitrichus*, rushes and sedges, we concentrated on the upper forested areas, that are also interesting botanically.

We parked by a grove of cabbage trees, each branching c. 2-m above the ground. One is 'root-sharing' with a 45-cm d.b.h. *Griselinia lucida* / puka. Another huge cabbage tree on a river-terrace paddock was host to another large puka, and a *Pennantia corymbosa* / kaikōmako in full flower.

The property's upper reaches include mature podocarp and *Alectryon excelsum* / titoki forest on the upper stream terrace. We admired two mature tōtara, one c. 1.4 m d.b.h., and c. 8 m high before branching. Parsley fern / *Botrychium biforme*, thrives on the ground in good light under this canopy. We saw the filmy ferns *Hymenophyllum cupressiforme* and *H. minimum*. *Metrosideros diffusa* / white rātā and *M. perforata* / clinging rātā vines are rampant climbers on tree trunks, and the orchid, *Drymoanthus adversus* was seen as windfall, and on hosts such as *Syzygium maire* / swamp maire.

Beyond the upper terrace, *Fuscospora solandri* /

black beech, *F. truncata* / hard beech and *Weinmannia racemosa* / kāmahi forest dominates, on the Rimutaka Range foothills. We saw three *Nestegis montana* / narrow-leaved maire trees in the beech canopy, and a small patch of *Anaphalioides trinervis* in full flower on the stream bank. Other plants we saw in flower included rangiora / *Brachyglottis repanda*, cabbage tree / *Cordyline australis*, nинao / *Helichrysum lanceolatum*, rewarewa / *Knightia excelsa*, and kāmahi / *Weinmannia racemosa*. Also seen:

- the rarely-seen fungus, *Aseroe rubra* / stinkhorn, with white stalk, red reducing radiating arms, and black inner centre when viewed from above.
- a shining cuckoo seen close up.

[Follow this link for photos by Leon Perrie](#).

Participants: Eleanor Burton, Gavin Dench, Bryan Halliday, Chris Hopkins (co-leader / scribe), Chris Horne, Pat McLean, Barbara Mitcalfe, Leon Perrie, Lara Shepherd, Sunita Singh (co-leader), Julia White.



Botrychium biforme. Photo: Sunita Singh.

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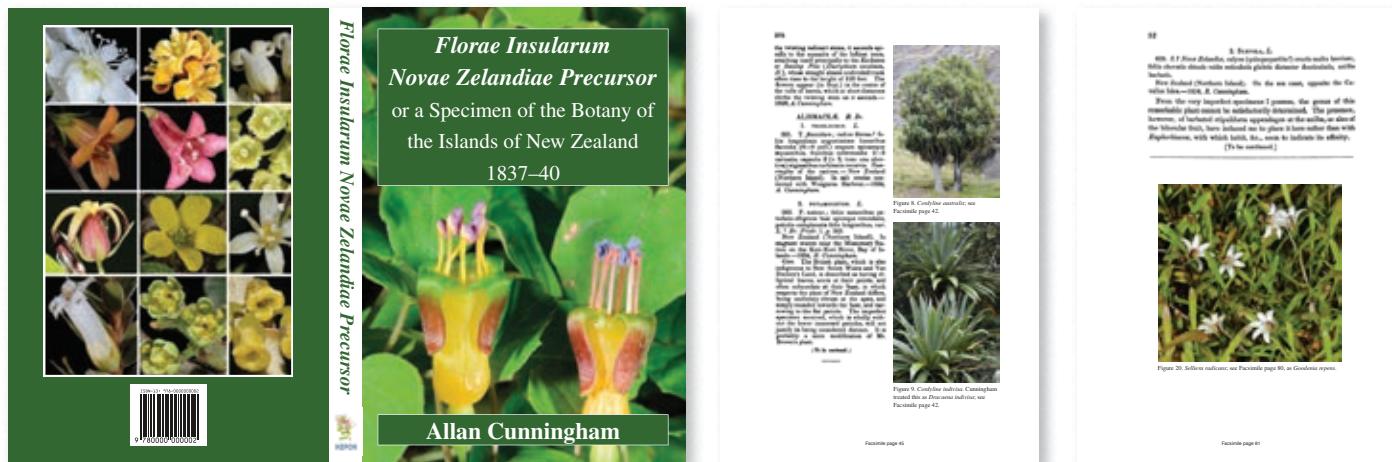
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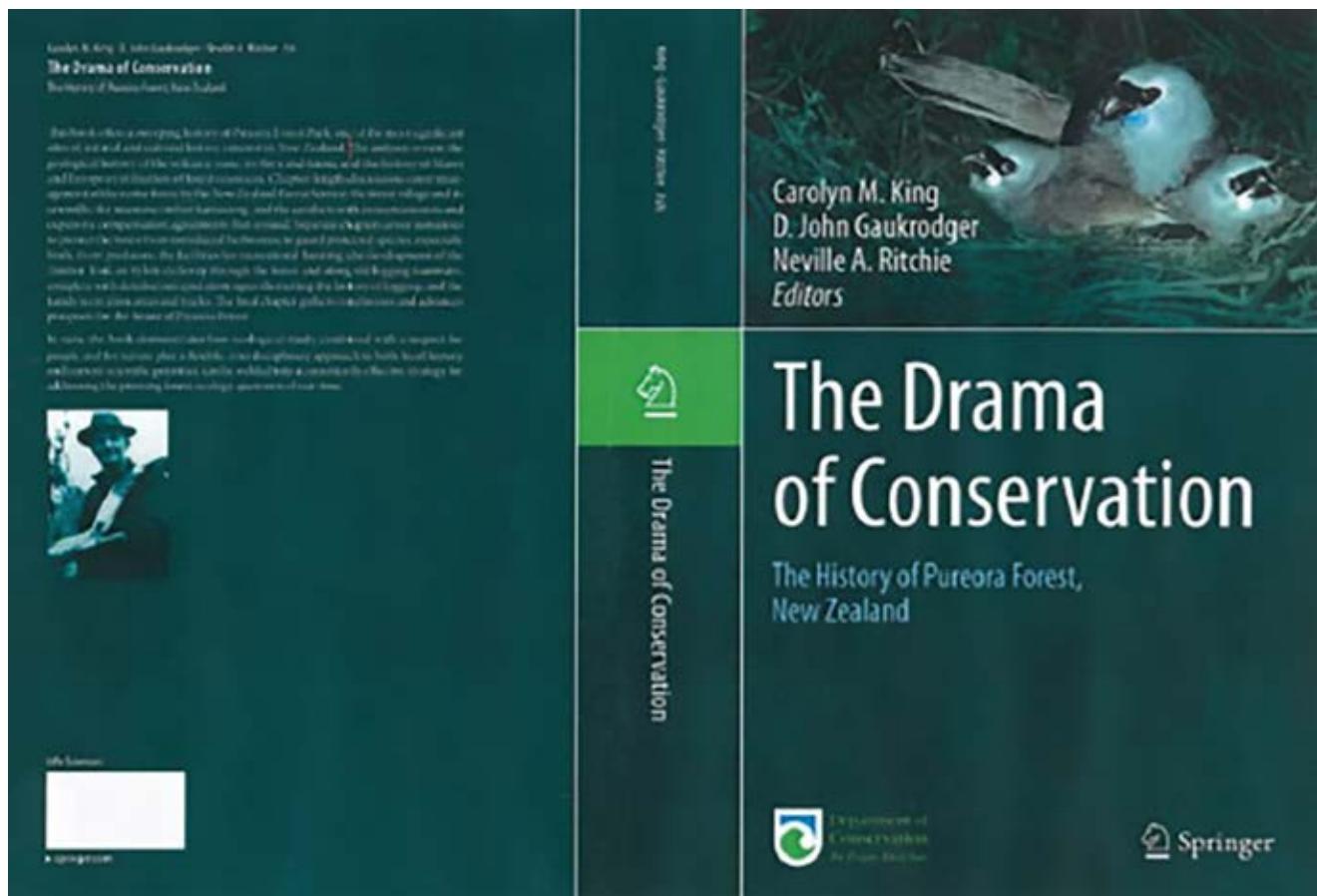
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Membership application

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

I wish to join the Society

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

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..... 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 2017 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 \$.....
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Alternatively you may pay direct to the Society's bank account 020536 0017812 00

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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 / /

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