

Wellington Botanical Society

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



NEWSLETTER

September 2014

Previous issue: May 2014

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From the Vice-President

Last month at our AGM we were privileged to have John Barkla describe some of his lengthy experience in the Otago region from his work with DOC for the Druce Memorial Lecture: "The special plants and places of Otago". His superb photographic presentation highlighted many of the remarkable botanical places in Otago, their characteristic plants, and challenges to their continued survival.

A busy period lies ahead and Christmas will soon be here. After the election fanfare dies away, the Local Government Commission is expected to release its recommendation for the Wellington region's local government organisation. Then while we attempt to come to grips with what this means, life goes on in parallel. As with all councils, Wellington City Council has been considering proposals for the next 10-year Long-term Plan. While the headline projects get media attention with future growth, transport and airport initiatives, we hope that the 'business as usual' environmental initiatives for pest control, and support for ecological restoration groups, Zealandia, green belts and catchment management, will not be forgotten, and will continue to receive support.

WCC's 2007 Biodiversity Action Plan is also being comprehensively reviewed, and is expected to be out for consultation in October. This is the document that guides biodiversity activities in Wellington, and identifies local priorities and actions to protect and restore biodiversity, and how the general community is engaged. We will be looking for results-based objectives, and measureable achievement targets, as it is not obvious what has been achieved since 2007. Perhaps we just don't celebrate the achievements enough?

This newsletter includes information and a registration form for our Nelson Lakes January camp. Accommodation is limited, so register promptly.

Richard Herbert (Vice-president)

Articles for web site

We welcome articles to consider 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 Leon Perrie at leonp@tepapa.govt.nz or 381 7261.

Wellington Botanical Society

Address:	PO Box 10 412, Wellington 6143		
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Annual subscription:	ordinary \$35; country \$30; student \$10; joint / group / family \$40.		

Send your subscription to Treasurer, WBS, Box 10 412, Wellington 6143.

New subscribers: Please complete form at the back of this newsletter.

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 November 2014

Articles may be edited for clarity and length

ATTENDING FIELD TRIPS AND MEETINGS

Ideas please

We welcome your ideas about:

- places to visit on field trips
- topics and speakers for evening meetings
- information or photographs for BocSoc web site

Please send ideas to our secretary, Barbara Clark, PO Box 10 412, Wellington 6143, ph 233 8202.

Field trips

If you intend to join a trip, PLEASE phone 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 in advance, you are welcome to join on the day.

Clothing for field trips

Sun hat, balaclava¹ or hat¹, waterproof/windproof parka, long-sleeved cotton shirt, singlet¹, bushshirt¹, 1 or 2 jerseys¹, waterproof/windproof overtrousers, nylon shorts, longjohns¹, longs¹, underclothes, swimming togs, 4pr socks¹, hut shoes, boots, gaiters, mittens¹, handkerchief.

Day trip gear

First aid kit, compass², map², insect repellent, whistle, matches in waterproof container, water purification tablets, water bottle, thermos, pocket knife, camera², binoculars², hand lens², note book², pen and pencil², sunblock, sunglasses, large plastic survival bag to line pack.

Overnight trip gear and food

As well as the day trip gear listed above, bring torch, spare bulb and batteries, candle, mug, plate, knife, fork, spoon, small towel, soap, tooth brush, tent, fly, poles and pegs, groundsheet, sleeping mat, sleeping bag, liner and stuff bag. Bring bread, butter/margarine, biscuits, fresh fruit and scroggin. SCROGGIN = Sultanas, Chocolate or Carob, Raisins, Orange peel, Glucose³, Ginger, Including Nuts.

1 = wool, polypropylene or polarfleece as applicable.

2 Optional

3 Dried apricots are recommended instead of glucose but would spoil the acronym!!

BotSoc equipment

In addition to the gas stoves, billies, kitchen utensils, flies etc., used on long field trips, the following are also available:

- first aid kit. NOTE: anti-histamines NOT included, because of short shelf-life
- ten NZMS 260 Sheet R27, Pt.Q27 maps
- ten Silva Type 3 compasses

If you are leading a BotSoc trip, and would like to take these items, please ring Chris Horne ph 475 7025, or Barbara Mitcalfe ph 475 7149.

Health and safety

- You are responsible for your own first aid kit. If you have an allergy or medical condition, please carry your own anti-histamines and medications, tell the trip leader of any problems you may have and how to deal with them.
- You are responsible for keeping with the party. If you have any doubts about your ability to do this, you must check the trip conditions with the trip leader, who reserves the right to restrict attendance.

Fitness and experience

Our field trips 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, everyone participates at their own risk. If you have any questions about whether you are fit enough for a particular trip, please contact the leader well beforehand.

Transport reimbursement of drivers

- We encourage the pooling of cars for trips.
- **Passengers:** Please pay your share of the running costs to your driver. We suggest 10c/km/passenger.
 - – If a trip on the inter-island ferry is involved, please pay your share of the ferry fare.
 - – If you change cars mid-trip, leave a *written* note for your driver.
- **Drivers:** Please ensure that you know where you are going, and who is in your car;
 - – Zero the odometer at the start, and agree on a return time;
 - – Account for all your passengers before you come back;
 - – Collect contributions towards transport costs.

Trip leaders

Please draft a trip report for the newsletter.

Meetings

Public transport to meetings

You may find the following bus services useful. They stop on Kelburn Parade, about 50 m from Lecture Theatre MYLT101 in the Murphy Building, Victoria University:

TO MEETINGS

No. 23 Mairangi: depart Houghton Bay 6.30 p.m., Zoo 6.40, Courtenay Place 6.50, opposite Supreme Court 6.57, University 7.02.

No. 23 Mairangi: depart Southgate 6.55 p.m., Hospital 7.05, Courtenay Place 7.15, opposite Supreme Court 7.22, University 7.27.

No. 22 Southgate: depart Mairangi 6.55 p.m., University 7.10.

No. 23 Houghton Bay: depart Mairangi 7.25 p.m., University 7.40.

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

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

FROM MEETINGS

No. 23 Southgate: 9.10 p.m. from University.

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

Cable Car at approx. 01, 11, 21, 31, 41, 51 minutes past each hour from Salamanca Station.

Last service 10.01 p.m.

For further information ring Metlink, Greater Wellington's public transport network, 0800 801-700.

FIELD TRIPS AND EVENING MEETINGS: OCTOBER–DECEMBER 2014 & JANUARY 2015

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 4 October: Field trip

East Harbour Regional Park

Botanise Lees Grove – Fern Gully circuit, Wainuiomata. See epiphytic and terrestrial *Dendrobium cunninghamii*, *Earina* spp., *Drymoanthus adversus*, *D. flavus*, *Bulbophyllum pygmaeum*, *Notogrammitis pseudociliata*, *Libertia edgariae*, *Morelotia affinis*, *Gonocarpus incanus* and a grove of aged *Dracophyllum filifolium* to 4m tall. Meet 9.15 a.m. at end of Lees Grove, Wainuiomata: Take the first right turn off Wainuiomata Rd after Rātā St, into Davis Gr, first left into Fraser St, first right turn into Lees Gr, and drive to its end. 8.05 a.m. train on Hutt Line to Waterloo Stn, then no. 170 bus to stop after Rātā St. Leader: Chris Hopkins 564 3980, deputy: Chris Horne 475 7025. Maps: street map, Topo50-BQ32 & East Harbour Regional Park brochure.

Monday 20 October: Evening meeting Our Natural Capital – the Biodiversity Action Plan review

Speaker: Myfanwy Emeny, Team Leader, Urban Ecology, Parks, Sport & Recreation, WCC. The plan co-ordinates WCC's biodiversity activities and identifies local priorities and actions to protect and restore biodiversity. The 2007 plan is under review. The reviewed plan will include a clear strategic direction for WCC, and give the public a clearer idea of the objectives of our restoration planting and community greening programmes. This is a chance to get more information on the guiding principles, the key changes since 2007, and the objectives and actions of biodiversity activities within Wellington City for the next five years.

Saturday 1 November: Field trip

Gibbs Covenant, Eastbourne

This 12-ha QEII covenant, established in 1994, protects an area dominated by unmodified black beech forest on the eastern hills of Wellington Harbour. The area incorporates a steep stream catchment facing west, a portion of the ridge-top, and a hill-slope descending to near Butterfly Creek on the east. A species list has been prepared by Pat Enright and Olaf John as a result of three visits in 1998 and updated by Barbara Mitcalfe and Chris Horne in 2013. The presence of a long-established red mistletoe, *Peraxilla tetrapetala*, has been a focus of conservation management since 1998, when eight permanent possum traps and thirty rat traps were set up and have been maintained ever since. With the addition of the MIRO mainland-island programme in the adjacent East Harbour Regional Park, the whole region is now showing excellent recovery of plants and bird life. Twenty species of native orchids are recorded in the covenant, and riflemen have been noted visiting the house garden in recent years.

The covenant clearly demonstrates beech regeneration ecology which depends on catastrophic destruction to clear areas for seedling growth, the result being a patchy forest of even-aged stands at various stages of development. The current season shows this cycle exceptionally well with massive germination following a mast year. The expected rodent resurgence did not occur, owing to rat control efforts, so the germination is spectacular. BotSocers will see the result of mistletoe propagation efforts over the past fifteen years.

Meet: 9.45 a.m. at 291a Muritai Rd, Eastbourne. No. 83 Eastbourne bus 8.45 a.m. from Courtenay Place – alight on Muritai Rd near Karamu St. Leader: George Gibbs 562 0992. Wellington contact: Sunita Singh 387 9955 / 027 4052 987. Maps: street map & Topo50-BQ32.

Saturday 15 November: Field trip

Te Mārūa Bush workbee

In partnership with Greater Wellington, BotSoc has been committed since 1989 to do weed control and revegetation in this important matai/tōtara/maire remnant in Kaitoke Regional Park. Our biennial workbees must continue so that we keep ahead of re-invasion by weeds, particularly around the plantings, so *please* come to help with this important work. Bring weeding gear: gloves, kneeler, weed bag, and your favourite weeding tools, e.g., grubber, loppers, pruning saw, jemmy. Meet at Te Mārūa Bush at 9.30 a.m. (250 m north of Te Mārūa Store and then left, off SH2 for 50 m, along the road to Te Mārūa Lakes, Kaitoke Reg. Pk. Catch 8.05 a.m. Hutt Line train from Wellington—ring the leader to arrange to be met at Upper Hutt Station. Co-leaders: Glennis Sheppard 526 7450, Sue Millar 526 7440.

Monday 17 November: Evening meeting

Science Fair prize winner; VUW tree research

Speaker: Sophie Russell, a year-8 pupil at Northland School, won the 2014 Wellington Botanical Society Prize at NIWA's Wellington Science and Technology Fair. Sophie's was the best exhibit of a project involving NZ native plants. Her project compared the heat retention and rain-water runoff of three roofing types. She was able to show that a "Green Roof" planted with *Scleranthus*, *Acaena* and small *Festuca* minimised rainwater run-off and kept a building cooler than one roofed with corrugated iron and one roofed with tiles. Her experiment showed

that there was minimal difference in heat retention between these forms of roofing. Several other exhibits were considered, all well-researched and well-presented. Sophie's project ticked all the boxes with her initial research, hypothesis, experimental method, and she provided a clear explanation and discussion.

Speaker: Frances Forsyth, MSc student, School of Biological Sciences. Frances, a member of BotSoc's committee, is identifying and measuring all the more than 4,000 trees and shrubs on Victoria University's campus. She will present some early results of her research, some analysis, and a brief discussion of what this might mean for biodiversity values, resilience and opportunities for the management of the campus green spaces.

Saturday 29 – Sunday 30 November: Field trip

John & Annabel Porter's covenant, Riversdale, Wairarapa

Day 1: Botanise the QEII covenant, 648 Homewood Rd, Riversdale, Tel.06 372 3717 www.porterspinot.co.nz.

Day 2: possibly continue botanising this covenant before returning to Wellington. Maps: Topo50-BP36. & BP35.

Accommodation: The Porters' whare sleeps 6–7 people; camping available around it for up to 18. Alternative accommodation: Camp Anderson, Riversdale Beach www.camponderson.co.nz. Ph Tania 06 372 3516/027 278

6208. Please arrange your own bookings. Bunks in 10-person bunk room & camping: \$20 pp/night. BBQ only, bring own stove and pots if needed. Meet: 10 a.m. on Te Ore Ore Rd, Masterton, opposite Henley Lake Recreation Area. Co-leaders: John & Annabel Porter. Wellington contact: Sunita Singh 04 387 9955 / 027 4052 987.

7–13 January 2015: Field trip

Nelson Lakes National Park & vicinity

Trips possible: Peninsula Walk, St Arnaud Track, Lake Rotoiti—both sides, Travers Valley—both sides, Mt Robert Track, Speargrass Valley Track, Howard Valley, Beeby's Knob, Red Hills, Rainbow Skifield, etc. Leader: Mick Parsons; co-leader: TBA; menu organiser: Bev Abbott. Accommodation: Travers-Sabine Travellers' Lodge, St Arnaud, Lake Rotoiti. Bunk room c. \$20 / night; double room c. \$65 / couple / night. No camping. Nearest campsite is run by DOC, near lake. A motel nearby: c. \$130 / couple / night. We return 14 January. Bring fresh antihistamine in case of wasp stings. Maps: Topo50-BR24, BR25, BS24, BS25, Nelson Lakes Parkmap 273-05. Brochures \$2 each at DOC Wellington Visitor Centre, 18–32 Manners St: *Walks in Nelson Lakes National Park*, *Angelus Hut Tracks & Routes*, *Travers-Sabine Circuit*. Registration form at back of newsletter.

AWARD

25 October: **Tom Moss Student Award in Bryology.** 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. Please refer to the article in this newsletter.

EVENTS

- *First Saturday each month. Otari-Wilton's Bush.* Plant-care workbee. Meet 9 a.m. at Information Centre, 160 Wilton Rd, Wilton.
Wilbur Dovey 499 1044.

- *First Sunday each month. Paekawakawa Reserve workbee.* 2 p.m. onwards. Bring your gardening gloves and tools (clippers, trowel, grubber etc.). Entrance between 48-52 Derwent St, Island Bay.
paekawakawa@gmail.com.

- *20 September:*
9 a.m. – 3 p.m. Otari Open Day - displays, talks, guided tours. Plant sale begins at 10 a.m.
9.30 a.m. Opening of Leonard Cockayne Centre. Otari's new meeting and education centre has been developed from the former curator's house, built in 1926.
Otari-Wilton's Bush, 160 Wilton Rd, Wilton, WN.

- *27 September & 25 October. Friends of Maara Roa planting workbees.* Meet 9.30 a.m., Cannons Creek front carpark by shops.
See new Maara Roa Track. www.maararua.org.nz

- *14 October, 6 p.m.* NZ Plant Conservation Network AGM. Begonia House, Wellington Botanic Garden. Presentation of Plant Conservation Awards 2014, then *The Mysterious Secrets*

of Uncle Bertie's Botaniarium, drinks & nibbles.
events@nzpcn.org.nz.

- *9 November. Pest-Fest.* Waitangi Park. Bring a weed, and take home a native plant.

- *10–12 November. NZ Indigenous Flora Seed Bank.* Seed Collector Training Workshop, Dunedin.
Contact: Jessica Schnell, Seed Bank Coordinator.
J.L.Schnell@massey.ac.nz

- *12–19 November. IUCN World Parks Congress 2014.* Sydney Australia, Global forum held every four years on protected areas (not just parks).
Contact: ECO eco@eco.org.nz.

- *28 November – 3 December. 29th John Child Bryophyte & Lichen Workshop*
Accommodation and meals: Aongatete Outdoor Education Centre, Wrights Rd, Katikati. 70-bed bunkroom, \$20 / night (bring your bedding). Breakfast, lunch & dinner available at reasonable cost. Shared cost for running workshop. Field trips to Kaimai Range & local reserves. Microscopes set up for evening work. The workshop is open to anyone interested in bryophytes, lichens and / or epiphytes, from novice amateurs to professional botanists. The aims are to gain and share knowledge of, and to encourage an interest in,

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

the mosses, liverworts, hornworts, lichens and epiphytes of NZ. Regular attendees are very friendly and willing to help beginners.

Organiser: Shirley Kerr shirley@kaimaibush.co.nz,
Ph 07 863 5353 mob: 027 463 5353.

- 6–7 December. **Orchid Council of NZ annual weekend.** Iwitahi, 27 km east of Taupo.
Bookings: Bill Liddy, 06 836 6735 wflid@xtra.co.nz
- 20 – 28 January 2015. **University of Canterbury summer course: Practical Field Botany (BIOL305).** An intensive, short summer course designed to meet the need for training in the collection, preparation, and identification of botanical specimens. Venue: UoC - Cass Mountain Research Area, Canterbury.
This course will interest amateur botanists, members of the workforce and biology students who need to acquire or upgrade taxonomic skills and are interested in field ecology, conservation, biodiversity and biosystematics. The course is targeted at participants from students with limited plant knowledge, to experienced career professionals.

Goals of the course

To enable participants to:

- become familiar with the plants of the central Canterbury mountains
- identify and name plants correctly and accurately using online and hard-copy identification keys
- carry out Recce vegetation surveys
- take and edit scientific-quality plant photos
- maximise usefulness and minimise environmental impact when collecting specimens
- prepare high quality voucher specimens of plants
- use scientific names to access detailed information about NZ plants
- understand the patterns of variation within populations
- appreciate unique and unusual aspects of the NZ flora.

Enrolment starts 7 October 2014. Contact Dr. Pieter Pelsler (pieter.pelsler@canterbury.ac.nz; 03 364 2987 ext 45605).

- 26 February – 8 March. **Seaweek.** NZ Association for Environmental Education.
www.seaweek.org.nz.

PUBLICATIONS

1. National Policy Statement for Freshwater Management 2014.

- *Ministry for the Environment:*
www.mfe.govt.nz

2. **The Plant Press.** Publisher: Allan Herbarium. 8/14: vascular type collection images available; new research on *Helichrysum*; Armstrong Collection gifted to Allan Herbarium; online interactive key to *Cotoneaster*; etc.

- Plantinfo@landcareresearch.co.nz.

3. **NIWA Wellington Science & Technology Fair programme.** Page 20: BotSoc prize of \$150 for the best exhibit of a project involving a NZ native plant or plants. See 17 November meeting – Spohie Russell, prize winner, will speak.

- www.sciencefair.org.nz/?q=node/2.

4a. **Key Native Ecosystem (KNE) plans.** View final plans for: Baring Head/Ōrua-pouanui; East Harbour Northern Forest; Parangarahu Lakes Area; Queen Elizabeth Park; Whitireia Coast at <http://www.gw.govt.nz/kne/>. Amanda Cox, Manager, Biodiversity, Greater Wellington Regional Council.

4b. **Regional Plan Review.** 7 8/14: draft Natural Resources Plan. Regional-plan@gw.govt.nz.

4c. **GWRC's Annual Plan 2014/15.** <http://www.gw.govt.nz/annual-plan-2014-15>.

- *Greater Wellington Regional Council, Box 11 646, WN 6142.*

5. **Branch out.** Spring 2014: Leonard Cockayne Centre, Otari; swap a weed at Pest-Fest; Otari Open Day; etc.

- *Wellington City Council. Ph 499 4444.*

6. Draft Auckland Botanic Gardens plant research topics.

- www.aucklandbotanicgardens.co.nz. *Bec Stanley, Curator, 021 681 504.*

7. **NZ Plant Conservation Network.** Trilepidea. 125 4/14: *Thelypteris confluens*; *Entelea arborescens*; huge pōkaka at Ōtaihanga; coastal shrubland, Canterbury, before & after fire; etc. 126 5/14: NZ Indigenous Flora Seed Bank update; *Crassula mataikona*; commercial promotion of lupins and foxgloves; South African invasive legume *Dipogon lignosus* has brought rhizobial symbionts to NZ; native vegetation through the eye of an artist; Auckland Kererū Project; seed of *Clianthus* and *Carmichaelia* sought; A classification of NZ's terrestrial ecosystems by Nicholas JD Singers & Geoffrey Rogers; BBC Natural History Unit to film in NZ – seeks ideas; etc. 128 7/14: AGM, Wellington 14 October – see 'Events' section; phenology recording of all *Sophora* species and *Clematis paniculata* - help sought;

Alseuosmia quercifolia; *Rhizocarpon geographicum* / 'map lichen' – image; botanising with children; two interactive keys updated: Key to Native Orchids – www.landcareresearch.co.nz/resources/identificatio/plants/native-orchid-key, and NZ Weeds Key - www.landcareresearch.co.nz/resources/identificatio/plants/weeds.key. new interactive key to *Cotoneaster* species in NZ - www.landcareresearch.co.nz/resources/identificatio/plants/cotoneaster-key - see article in this newsletter; etc. 129 8/14: AGM; translocation of threatened plants from hydro-electric projects – info. sought; *Ranunculus acraeus*; another taxonomic opinion on *Kunzea ericoides*; "A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex" doi 10.3897/phytokeys.40.7973; eFlora of NZ mosses online as a pdf - <http://www.nzflora.info/publications.html>, and electronically online within the eFlora - <http://www.nzflora.info/index.html>; NZIFSB Dunedin Seed Collector Training Workshop 10-12/11; Onetahi Reserve planting; *Anisotome patula*, a South Canterbury endemic; etc.

- *NZPCN, Box 16 102, WN 6242. events@nzpcn.org.nz*

8. **NZ Botanical Society.** 117 9/14: *Olearia cymbifolia*; Allan Mere Award 2014 to Dr Brian Molloy; regional BotSocs news; NZ's natives as weeds overseas; Philibert Commerson (1727-1773) & Ouris - biographical note by Val Smith; etc.

- *NZBS, c/- Canterbury Museum, Rolleston Ave, CH 8013. Subscriptions: ordinary - \$25, student - \$12. Newsletter is quarterly.*
www.nzbotanicalsociety.org.nz

9a. **Auckland Botanical Society.** Journal Vol. 69(1) 6/14: botanising in the Miocene; Mike Wilcox – Honorary Life Member; trip reports; etc.

9b. **Auckland Botanical Society.** 8/14: myrtle rust an airborne fungal pathogen from Brazil now in Australia; wilding pine control - Rangitoto Island; pest animal eradication success on Macquarie Island; Auckland Kererū Project; etc.

- <https://sites.google.com/site/aucklandbotanicalsociety/>. *ABS, Box 26 391, Epsom, AK 1344.*

10. **Canterbury Botanical Society.** 6/14: research on taxonomy of rosette-forming *Brachyglottis* group; etc.

- <http://canterburybotanicalsociety.org.nz/>. *CBS, Box 8212, Riccarton, CH 8440.*

11. **Nelson Botanical Society.** 8/14: Spider orchids and fungus gnats – talk by Carlos Lehnebach; etc.
 - www.cathyjones4art.weebly.com
12. **Waikato Botanical Society.** 8/14: *Corybas carsei* / swamp helmet orchid; threatened plant garden; etc.
 - <http://waikatobotsoc.org.nz>
13. **Otari-Wilton's Bush Trust.** 6/14: Otari Awards – Bev Abbott a recipient; secondary schools tours; seed collecting & banking; pest-animal control; *Pelargonium inodorum*; etc. 9/14: Open Day 20 September; *Celmisia* “Mangaweka”; *Nematoceras* “Waiouru”; etc.
 - *OWB Trust, 160 Wilton Rd, Wilton, WN 6012.*
14. **Forest & Bird.** 5//14: protecting Otago's native plants; RMA changes; 1080 boost for mast year; Subantarctic islands; stewardship land in limbo; Ulva Island; protecting *Dactylanthus taylorii*; etc. 8/14: climate debate; State Services Commission report on DOC's restructuring; Snowdon Forest safe from monorail; Great Barrier Conservation Park; lancewoods; native forests open to loggers; the life of lichens; etc.
 - *F&B, Box 631, WN 6140. www.forestandbird.org.nz*
15. **Rāhui.** Winter 2014. Karori Halo; Watts Peninsula; landfills; natural pathways; etc.
 - *Wellington Branch, Forest & Bird, Box 4183, WN. rahui@mgmhunt.com*
16. **Ecolink.** 5–7/14: national policy on water; RMA at risk; environmental effects of plantation forestry; logging on conservation land; etc.
 - *ECO, Box 11 057, WN. www.eco.org.nz.*
17. **Friends of Wellington Botanic Garden.** 6/14: native forest areas, part 2; Children's Garden; etc. 9/14: native forest areas, part 3; etc.
 - *FoWBG, Box 28 065, WN 6012. www.friendswbg.org.nz. Subscription: individual—\$20, student—\$15, family—\$25.*
18. **Gorge Gazette.** 7/14: rubbish workbees; *Melicope simplex*, kāmahi & large-leaved milk tree; stormwater; tradescantia; etc.
 - www.trelissickpark.org.nz
19. **Friends of Baring Head.** 8 8/14: planting; divarication & 'grey scrub'; etc.
 - *See report in this newsletter.*
20. **Pipipi.** 39 5/14: mast year; Uropetala dragonflies; pest plants & animals; etc.
 - *Hinewai Reserve, RD3, Akaroa 7583. Donations welcome – make cheques out to Maurice White Native Forest Trust.*
21. **Trees for Survival.** 30 8/14: divarication and heteroblasty.
 - *TJS, Box 11 836, Ellerslie, AK 1142. www.tfsnz.org.nz*
- 22a. **Federated Mountain Clubs Bulletin.** 197 8/14: Community Conservation Partnership Fund; stewardship lands; ecological & social impacts of mountain bike tracks; Lincoln University researching Russell lupin as a fodder plant for the high country; Raoul Island weeding; West Coast Wind-blown Timber Act; Mt Somers, Canterbury; etc.
- 22b. **Protect NZ's Forgotten Lands Action is needed now.** Re DOC's stewardship lands.
 - *FMC, Box 1604, WN 6140. admin@fmc.org.nz, ph 04 385 9516.*
23. **Heritage.** Spring 2014: Fiordland's Hollyford Track; etc.
24. **Bushy Park newsletter.** Spring 2014.
 - www.bushyparksanctuary.org.nz. BP Trust, Box 741, Whanganui 4540.
- 25a. **Native flower calendar 2015.** See: <http://www.craigpotton.co.nz/store/calendars/2015-calendars/2015-new-zealand-s-native-flowers-calendar>.
- 25b. **Paradise Lost.** David Butler, Tony Lindsay, Janet Hunt. Includes mana Island in the list of sanctuaries. RRP \$55.
 - *Bookshops.*

SUBMISSIONS CALLED FOR

- **30 November. Regional Plan review, and Natural Resources Plan draft.** Greater Wellington Regional Council. Public meetings will be held, and comments sought. See www.gw.govt.nz/your-environment. Comments to regional-plan@gw.govt.nz
- **5 December. Suburban Reserves Management Plan draft.** Covers reserves between Khandallah and Miramar, including Makara. Document available from 7 October. Wellington City Council, Box 2199, WN, ph 499 4444.
- **Late 2014 – date to be advised. Biodiversity Action Plan review.** Myfanwy Emeny, Wellington City Council, Box 2199, WN, ph 499 4444.

SUBMISSIONS MADE

- **Botanic Gardens of Wellington Draft Management Plan (April 2014)**
Wellington City Council recently released its draft management plan for the four properties it manages as botanic gardens, i.e., Otari-Wilton's Bush (Otari), the Wellington Botanic Garden (WBG), Truby King Park and Bolton St Memorial Park. The draft plan's 197 pages contain generic objectives and policies which apply to all four gardens, separate sections on each garden, and several appendices. This means that anyone wanting to understand Council's plans for a particular management function, e.g., education and interpretation at Otari, has to work through the general objectives and policies in Chapter 3, the specific policies and implementation plans in Chapter 5, and the background information in the appendices.
The Society's submission focused on Otari. We looked back to what had been achieved under the previous management plan (2007), what is new, and what had been dropped. The achievements include the Landscape Development Plan which has resulted in changes to the paths and collections, and the

integration of the Curator's Cottage into Otari. (The cottage will become the Leonard Cockayne Centre when it is opened on 20 September 2014).
There's been no progress over the last seven years in developing a marketing and promotion strategy for Otari, but this may happen under the new vision which is for all gardens to be “Internationally recognised nature-based and cultural visitor attractions that show-case Wellington as an eco-city”. We suggested that marketing Otari as “New Zealand's Native Botanic Garden” would take advantage of the botanic gardens branding which is well-known internationally and in other parts of New Zealand.
New plans for education include testing new interactive trails, possibly using new technology, and showcasing the use of natives as plants for the home garden around the Leonard Cockayne Centre. The big ticket item, however, for Council's 2015 Long-Term Plan is an upgrade of Te Marae o Tane, as the main visitor centre.
One of the items dropped from the previous plan was the need for ecological expertise in managing Otari's original

and regenerating forests. We suggested Council establish a Scientific Advisory Group to provide continuity of expertise. We also gave them a list of more than twenty botanical references about Otari to add to the references appendix, including several papers from the Society's Bulletin. We suggested two additional policies for the collections at Otari to remain true to the principles developed by Cockayne in establishing the collections. We believe these can be achieved without detracting from the aesthetics of the plantings. On-site access to new technologies may be part of the answer.

The collections will be developed so that they are representative of as much of the diversity of NZ's flora as it is possible to cultivate at Otari.

The collections will cater for students, the public and visitors who want to know more about NZ's plant families and genera, and their evolution.

We were one of thirteen submitters who spoke to councillors at the oral hearings. Chris Horne and Barbara Metcalfe gave an excellent presentation, drawing on their experience and knowledge of the native remnants in the WBG. Issues raised by other submitters about the WBG included calls for more commuter cycling routes and an off-leash dog area.

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

*Thank you,
The committee*

Newsletter by email?

If you would like to help us reduce our postage costs, and to read a pdf copy of your newsletter, please advise the newsletter editor, Chris Horne, jchorne@clear.net.nz, or write to Wellington BotSoc, Box 10 412, WN 6143.

New member

We welcome Gillian Candler.

Lea Robertson, Treasurer

2014/15 committee

At the 75th Annual General Meeting, held on 18 August 2014, the following were elected:

President	Position vacant	
Vice-presidents	Richard Herbert	232 6828
	Sunita Singh	387 9955
Secretary	Barbara Clark	233 8202
Treasurer	Lea Robertson	473 8211
Auditor	Rita Chin	802 5278
Committee	Eleanor Burton	479 0497
	Frances Forsyth	384 8891
	Chris Horne	475 7025
	Lara Shepherd	384 7147
	Owen Spearpoint	562 8780

Submissions coordinator	Bev Abbott	475 8468
Bulletin editor	Leon Perrie	381 7261 (w)

Subscriptions for the year ended

30 June 2015

Subscriptions for the year ending 30 June 2015 are now due, and receipt will be appreciated.

A yellow invoice is attached to the print newsletter, and will be posted to those who receive pdf copy.

Ordinary membership	\$35
Country	\$30
Group/family	\$40
Student	\$10

(rebate of \$5 if paid by 30 November 2014 – unless you choose to forego)

Lea Robertson, Hon Treasurer

DOC Wellington Visitor Centre

*Te Pae Manuhiri, Te Rohe
ō Te Whanganui ā Tara*

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Web: www.doc.govt.nz

New Zealand Government

Department of
Conservation
Te Papa Atawhai

President's Report to the 75th Annual General Meeting of the Wellington Botanical Society

Highlights

- A fabulous summer trip to Lake Waikaremoana (Te Urewera National Park), based at Camp Kaitawa, with support from DOC's Aniwanuiwa Base Office; then to Whirinaki Forest Park, based at Whirinaki Recreation Camp, Minginui.
- The 2013 A P Druce Memorial Lecture given by Shannel Courtney, DOC, Nelson, Technical Support Officer—Threatened Plants. The title of his talk was “The mountains of Nelson & Marlborough—a treasure trove of alpine plants”.

Special thanks

As I conclude my second year as president, I reflect on the great variety of inspirational speakers we have had at our evening meetings over the past year, and give thanks to those who have helped to organise and present them. Although I have not been able to attend fields trips as often as I would have liked, I am grateful to all members who have participated in, and helped to organise and lead this important aspect of our activities in improving awareness of the natural environment around us.

Membership

We have almost maintained our existing membership over the year. It now comprises 121 Ordinary Members, 41 Country Members, 61 Group Members, 38 Life Members, and 3 Student Members. Thus the total membership is 264, down from 275 last year.

During the year fifteen new members joined. There were four resignations, one death and ten non-paying members were struck off during the year to June 2014.

Trips

The main field trip of the year was our summer-camp excursion to Te Urewera National Park. We stayed at Camp Kaitawa, near the eastern side of Lake Waikaremoana, and adjacent to the Kaitawa Hydro-Power Station. A highlight was a talk by local Ngāi Tūhoe iwi member, Jenni Moses, on the subject of Rongoā Māori (traditional use of native plants by Māori), and also some insight into the Ngāi Tūhoe treaty settlement. Some members spent two days visiting areas of the magnificent Whirinaki Forest Park, based at Whirinaki Recreation Camp, Minginui. A full report is in the May 2014 newsletter.

Around the Greater Wellington area we made eleven field trips. As with all our field trips, species lists were prepared of the native and exotic vegetation seen. These lists, an invaluable resource in tracking the health of local ecosystems, are lodged with the private owner, or land-managing agency, and the NZ Plant Conservation Network.

Two workbees were held at Te Mārua Bush. The Society works in partnership with Greater Wellington Regional Council, and Upper Hutt Forest and Bird, to tend this forest remnant in Kaitoke Regional Park.

A detailed list of the trips held during the year is shown elsewhere—an average of 17.5 members attended each of the field trips and workbees. This continues the upward trend, and is up from last year's average of seventeen.

Meetings

Ten meetings were held during the year, with an average attendance of 38.6 people, slightly up on last year. The best-attended meeting was that in August when Shannel Courtney spoke about the botany of the mountains of Nelson and Marlborough.

A detailed list of the meetings held during the year is shown elsewhere.

Communications

- Newsletter: Three newsletters were produced during the year; one each in September 2013, December 2013, and May 2014. Thanks to Chris Horne for the many tasks he is involved in with preparation of the newsletters, and to Jeremy Rolfe for formatting them and finalising their production. These publications provide a fantastic wealth of information for members, and a record of the society's activities.
- The web site at www.wellingtonbotsoc.org.nz continues to be the public face of the Society, and a number of enquiries come through this avenue. It is managed by the president.
- Bulletin No. 55 is under preparation and expected to be published later in 2014.
- Community outreach
 - The Society provided judges for last year's NIWA Science and Technology Fair.
 - Our newsletters were distributed not only to members, but also to related organisations, libraries, and Citizens' Advice Bureaux.
 - Our field trips, which are open to the public, are advertised in the Wellington Glean Report.
 - We participated with our BotSoc display panel at the annual Otari-Wilton's Bush Open Day.

Submissions

The Society continued to lodge submissions on draft plans and strategies with implications for NZ's indigenous plants and ecosystems. The major submissions this year included the draft National Policy Statement on Freshwater, the draft Management Plan for the Wellington Botanic Gardens (includes Otari-Wilton's Bush), and Greater Wellington's Key Native Ecosystem Plan for Baring Head-Ōrua-pouanui.

Bev Abbott was again co-opted onto the committee as Submissions Coordinator, and put a lot of time into researching and drafting submissions for which the committee is very grateful. This is an important role for the Society, and is the effective public face of the Wellington Botanical Society into the local and central government organisations that we submit to.

Awards

Several awards were made by the Society during the year as follows:

- **Jubilee Award** for 2013 was presented to Valerie (Val) Smith (\$1,300) for assistance towards publishing a booklet with the results of her biographical sketches about people commemorated in New Zealand plant names, and also to Hugh Wilson (\$1,300) for assistance with publishing his book *Plant Life on Banks Peninsula*.
- **Arnold and Ruth Dench New Zealand Botanical Award**—No award was made in 2013.
-

- **VUW School of Biological Sciences - Student Field Grants:**
 - Thomas Bell, \$115, investigating colour differences in *Disphyma*.
 - Maren Preuss, \$500, investigating the taxonomy of the red algae parasites on *Polysiphonia atterima*, *Rhodophyllis membranacea* and *Pterocladia lucida* in New Zealand.
 - Amanda Taylor, \$689, who is studying epiphytes.
 - Charlie Clark, \$1200, who is investigating *Senecio glastifolius*.
- **Tom Moss Student Award in Bryology**—There were no applicants in 2013.
- **2013 NIWA Science Fair Prize**—Max Culver, a year 7 pupil at Wellington South Intermediate School. His project, “Rongoā Māori—The anti-fungal properties of horopito”, compared fungicide prepared from horopito with the effectiveness of the standard lime-sulphur spray.

The committee

The committee met bi-monthly during the past year, and as well as the committee business, enjoyed the fellowship of members’ homes. Special thanks go to Barbara Clark, our secretary, and Frances Forsyth, for keeping us all up to date with the minutes and correspondence. Thanks also to incoming Treasurer, Lea Robertson, for keeping our finances in order, and to Rodney Lewington for continuing support service to the committee.

Sunita Singh has continued a great job in organising our guest-speaker and field-trip programmes. I have very much enjoyed the great variety of very interesting speakers we have had over the past year—I hope you have too?

Other acknowledgements

Thanks and acknowledgements are due to many other people, including:

- Jeremy Rolfe for formatting the newsletter and bulletin.
- Leon Perrie for editorship of the bulletin, and others who are involved in preparation and distribution of the newsletter and bulletin.
- Julia White for dealing with enquiries received via the web site.
- Barbara and Kevin Clark for the barbecue for the February committee meeting. It’s the year’s highlight for the committee meetings.
- Mick Parsons and Sheelagh Leary for a superbly run summer trip to Lake Waikaremoana, and to Sunita for the initial selection and booking arrangements for the summer camp sites.
- All those members who helped raise funds for the Society’s Jubilee Fund by donating plants for sale, or from the sale of cards, or books for auction.
- All our guest speakers and the members who made Plant of the Month presentations.

Thank you

Richard Herbert, President

Field trips

Date	Location	Attendance
07.09.13	Wright Hill Reserve: Deliverance and Salvation tracks	18
05.10.13	Ngauranga-Horokiwī coastal escarpment	26

Date	Location	Attendance
02.11.13	“Muri Bush”, Pukerua Bay	26
16.11.13	Te Mārua Bush workbee	10
30.11.14 –	Wairarapa: Pūkaha/Mount	14
01.12.14	Bruce; garden with translocated mistletoes; Fensham Reserve	
17 – 28.01.14	Summer Camp - Te Urewera National Park and. Whirinaki Forest Park	35
15.02.14	Muritai Track, East Harbour Regional Park	16
08.03.14	Fitzroy Bay / Baring Head	10
05.04.14	Wi Tako Scenic Reserve, Upper Hutt	17
18 – 21.04.14	Wairarapa	Cancelled
03.05.14	Pūriri and Broad Gully tracks, East Harbour Regional Park	13
07.06.14	Korokoro Valley, upper true left, Belmont Regional Park	11
21.06.14	Te Mārua Bush workbee	14
05.07.14	Haywards Scenic Reserve, Lower Hutt	18
02.08.14	Porirua Scenic Reserve	17
	TOTAL	245
	AVERAGE	17.5

Evening meetings

Date	Subject	Attendance
19.08.13	AGM. The mountains of Nelson & Marlborough - a treasure trove of alpine plants	62
16.09.13	Adapting to aquatic life	39
21.10.13	Grasses in NZ	29
18.11.13	VUW students’ presentations	31
17.02.14	What the new DOC means for conservation.	54
17.03.14	Nature Watch NZ	33
14.04.14	Can I eat that leaf – an insect’s approach to taxonomy	48
19.05.14	Members’ evening; book auction	22
16.06.14	Plant-mycorrhizal interactions as foundational components of ecosystem structure and function	30
21.07.14	Eco-sourcing of plants: what, why, where and how	38
	TOTAL	386
	AVERAGE	38.6

Plant of the month

The following presentations were made before the main speaker at the following meetings:

Date	Presenter	Topic
23.10.13	Barbara Mitcalfe	<i>Brachyglottis greyi</i> & <i>B. repanda</i>
17.02.14	Dr Lara Shepherd	<i>Arthropodium candidum</i> , <i>A. cirratum</i> , <i>A. bifurctum</i>
17.03.14	Dr Carol West	<i>Elingamita johnsonii</i>
14.04.14	Chris Horne	<i>Earina autumnalis</i>
16.06.14	Rodney Lewington	<i>Azolla rubra</i>

Annual Report from the Treasurer

Wellington Botanical Society records small surplus in year ended 30 June 2014.

The audited accounts, below, are followed by a brief summary of activity for the Financial Year.

Wellington Botanical Society Inc. Income and Expenditure for the Year ended 30 June 2014

General Account				
2013	Expenditure	2014	2013	Income
	993 Printing and Stationery	1,856	3,155	Ordinary subscription
	518 Post and telephone	546	770	Country subscription
	205 Web site costs	205	30	Student subscription
	1,046 Meeting and Speakers' expenses	655	979	Group subscription
	51 Sundry expenses	100		
	340 Subscriptions to other organisations	190	4,934	Total Subscriptions
	200 Members photo Competition Prize	0	1,955	Interest on investment
	0 Depreciation on equip.	0	272	Sale of publications
	960 Transfer to Student Award Fund	960		
	4,546 Transfer to Bulletin Account	4,000		
	219 Purchase costs Tony Druce Trip Book	0		
	-1,916 Surplus on General Account for the year	482		
	<u>7,160</u>	<u>8,994</u>	<u>7,160</u>	<u>8,994</u>

Jubilee Award Fund				
2013	Expenditure	2014	2013	Income
	150 Science Fair Award	150	60,662	Opening Balance
	2,600 Jubilee Award	2,600	1,542	Donations
			726	Proceeds of book sales
			91	Plant sales
			43	Card sales (net of cost)
	62,862 Closing Balance	65,840	2,549	Interest on investment
	<u>65,612</u>	<u>69,590</u>	<u>65,612</u>	<u>69,590</u>

Tom Moss Student Award in Bryology				
2013	Expenditure	2014	2013	Income
	400 Student Award	0	8,660	Opening Balance
	8,617 Closing Balance	9,271	0	Donations
	<u>9,017</u>	<u>9,271</u>	<u>9,017</u>	<u>9,271</u>

Arnold and Ruth Dench New Zealand Botanical Award				
2013	Expenditure	2014	2013	Income
	1,200 Award	0		Opening Balance
	0 Closing Balance	0	1,200	Donations
	<u>1,200</u>	<u>0</u>	<u>1,200</u>	<u>0</u>

John Child Workshop Contingency Fund				
2013	Expenditure	2014	2013	Income
	4,298 Closing Balance	4,612	4,126	Opening balance
	<u>4,298</u>	<u>4,612</u>	<u>4,298</u>	<u>4,612</u>

Student Field Grant				
2013	Expenditure	2014	2013	Income
	1,810 Grants to Students	1,800	8,998	Opening Balance
	8,454 Closing Balance	8,232	306	Interest on investment
	<u>10,264</u>	<u>10,032</u>	<u>10,264</u>	<u>10,032</u>

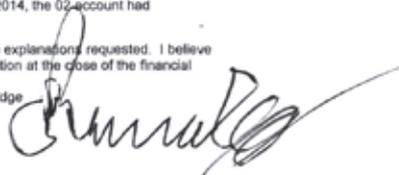
Provision for Bulletin				
2013	Expenditure	2014	2013	Income
	4,462 Printing Bulletin	0	273	Opening Balance
	357 Distribution costs	0	20	Sale of bulletins
	20 Closing Balance	4,025	4,546	Transfer from General Account
	<u>4,839</u>	<u>4,025</u>	<u>4,839</u>	<u>4,025</u>

Balance Sheet as at 30 June 2014				
2013	Liabilities	2014	2013	Assets
	2,010 Life Membership Fund	2,010	1,833	BNZ Current Account
	62,862 Jubilee Award Fund	66,840		plus deposits not credited at year end
	8,617 Tom Moss Student Award in Bryology	9,271	-405	less Unpresented cheques
	8,454 Student Field Grant Fund	8,232	10	Cash held
	4,298 John Child Workshop Contingency Fund	4,612	2,056	BNZ Business on call Account
	0 Arnold and Ruth Dench NZ Botanical Award	0	3,495	Bank Funds on current account
	20 Provision for Bulletins	4,025		20 Fax Machines less depreciation
				50 Display unit less depreciation
				30 Projector
				16 Stock of Bulletins
				109 Stock of Tony Druce Trip Books
				24 Camping Equipment
				0 Stock of postage paid envelopes
				117 Stocks of cards
	42,830 Accumulated fund as at 30 June 2013			Investment Pool
	Plus surplus for the year	482	10,500	Kiwi Bank Term Investment
	Accumulated fund as at 30 June 2012	43,313	34,628	Westpac Term Investment
	<u>129,090</u>	<u>138,302</u>	<u>129,090</u>	80,101 BNZ Finance
				91,769
				<u>131,129</u>
				<u>138,302</u>

Note that the Society has a No 2 Current Account used for handling moneys for field trips. As at 1st July 2014, the 02-account had a credit of \$827.94. This account is not included above and is not subject to audit.

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.

Peter Beveridge
Auditor
Date



The Wellington Botanical Society has maintained grants at the same level as previous years, and proposes to keep subscriptions at the current level for the time being. Recipients of both the Student Field grants and the Jubilee Award have extended their appreciation for the support we were able to give them in researching indigenous flora. Awards were not made for either the Tom Moss Student Award in Bryology, or the Arnold and Ruth Dench NZ Award.

Donations to the Jubilee Award Fund were gratefully received, the total \$1910 up from \$1542 previously. Subscription and investment income also rose to \$5719 and \$3275 respectively up from \$4934 and \$1955. Our membership currently stands at 251 persons.

Expenditure was down in a few areas this financial year, and we owe special thanks to those speakers and volunteers, who gave generously of their time and energy for the benefit of Society aims. Printing and stationery costs were up, but largely because payment for the June 2013 newsletter fell due this financial year.

Publication of Bulletin 55 has been delayed until later this year, but provision has been made for its printing and distribution. Additional funds have been conservatively invested until required, which are slightly above those the Society customarily puts aside to maintain the value of capital against inflation.

My particular thanks to Rodney Lewington, and to Chris Horne, for assistance rendered during the course of the year.

Lea Robertson, Hon Treasurer

Restoration of Baring Head

I reported in the May Newsletter on ecological restoration work underway at Baring Head, and a ten-year Biodiversity Action Plan which had been agreed between the Friends of Baring Head and Greater Wellington Regional Council.

Since then, we have been lucky enough to be granted \$92,000 from the Community Conservation Partnership Fund, administered by DOC. This will enable us to complete the first three years of the plan, and get those large and expensive up-front projects out of the way.

Work over the initial period will include:

- Fencing; to ensure that stock cannot continue to degrade the existing native vegetation and compromise future plantings. This work has started and will be completed next year.
- Extending pest-animal control across the block to include cats, possums and rodents, beginning in 2015/16. Volunteers are servicing 101 predator traps, and several neighbours have agreed to allow us to trap on their properties, as well. We are seeking funding for the latter project.
- Protecting and restoring two lizard and invertebrate habitat hotspots on the river escarpment.
- Restoring three oxbows on the river plain, and five sites on the Wainuiomata River.
- Intensive management of two banded dotterel sites on the coastal platform. This will complement large-scale efforts already underway to control weeds such as horned poppy, lupins and boxthorn.

On top of all this, the Friends are also assisting the Council with several other restoration projects, including small-

mammal monitoring, beach clean-ups and enrichment planting. Furthermore, we have now been given permission to remove karo from the coastal escarpment below the lighthouse.

So, there will be plenty of work opportunities for everybody. If you would like to help, then contact me at (04) 478 4391 or on rydercj@xtra.co.nz

*Colin Ryder
Treasurer, Friends of Baring Head*

Watts Peninsula

After almost three years of no discernible progress, the restoration of Watts Peninsula and its environs took a major step forward on 2 September when a Memorandum of Understanding setting out some high-level guiding principles for the protection, preservation and development “with sensitivity” of the area was signed by the Government, Wellington City Council (WCC) and the Port Nicolson Block Settlement Trust.

Work has begun on drafting of a project charter which will outline the vision, objectives and goals of a Watts Peninsula Plan for the development of a “national historic destination” protecting and enhancing the environmental, cultural and heritage values of the northern end of Miramar Peninsula. Importantly, the former prison site and WCC land on the seaward side of the road at Shelly Bay will be covered by the plan.

While it's early days yet and there's still much work to be done, there seems to be a determination to make this exercise succeed. The Watts Peninsula Coalition, representing the community at this stage, has been talking informally with the major stakeholders since 2011 and it's great to see some of our ideas about governance and the scope of the plan being taken seriously. The Coalition anticipates that it will be heavily involved in planning and resourcing work on the site.

Colin Ryder, Convenor, Watts Peninsula Coalition

Percy Scenic Reserve news

A tumultuous time of staff changes has been a challenge at Lower Hutt's Percy Scenic Reserve this year. Eliza Whalley left the Wellington area for other opportunities. Silvia Verwey baby-sat Percy's while the position was being filled. We now have Cliff Keilty in the role. He is British-born and new to NZ alpine plants and native threatened plants, but brings with him many years of horticultural experience. We much appreciate Liza's exceptional record-keeping, and her time spent overhauling and updating the office records and data, which allows for a much easier transition for anyone entering the role.

Highlights this year include a visit by the Australasian Plant Propagators' Society conference in April. The *Brachyglottis pentacopa* growing in the reserve near the Weta Cave was of particular interest to several folk—it has lovely fresh green leaves and a wonderful smell. Downer NZ native plant expert, John van den Hoeven, says that the NZPCN website states that this species, found growing on Mount Percy in the Wairarapa, may be a hybrid or variety of *B. perdicoides*.

John has spent valuable time assessing plants left from days gone by, and awaiting proper identification. He identified a rare native orchid, *Myrmechila trapeziformis*

and found an *Olearia adenocarpa* and an *Australopyrum calcis* subsp. *calcis* (both listed Nationally Critical), amongst other goodies. John's contribution has been invaluable.

We had a Master's student visit as he is doing a thesis on mycorrhizal associations of native orchids. It makes you realise how much there is to learn about the complexity of the environment.

Challenges we faced this year (other than staff changes): the plant houses are due for a tart-up. They are not ideal for housing the alpine plants. One house leaks badly when it rains, so we move the plants to avoid drips, but when it pours as it has often over winter, some plants inevitably get more moisture than they would like. The heat in summer was also quite stressful for some plants. We have such a diversity of plants from various habitats that it is tricky to satisfy all their needs all the time. Strong southerly salt-laden winds affect some plants such as the ferns.

Cliff has been in the job for two months and is enjoying the lovely surroundings. Now spring is on the way it will be especially nice. We hope to see some of you BotSoc folk here soon to meet Cliff.

Silvia Verwey, John van den Hoeven, Cliff Keilty

Otari-Wilton's Bush report

Kia ora koutou. Work on the new Leonard Cockayne Centre is progressing despite some poor weather. We will plant around the house to have it looking top-notch for the official opening on Otari Open Day, Saturday 20 September. The plantings will be a mixture of cultivars and species suitable for Wellington home gardens. This helps meet one of Dr Cockayne's original schemes for the gardens—*the use of indigenous plants for horticultural purposes shall be illustrated in various ways for the information of those desirous of using such plants in their gardens*.

We have just finished hosting a student placement from Victoria University. Kate McKenzie-Pollack investigated some family based activities for families visiting Otari. Among her ideas was a neat booklet designed for kids to complete here—more to follow.

Finn Michalak, one of our curators, had a successful trip to Hawai'i in June and met folks from the National Tropical Botanic Garden who visited us in January. He particularly enjoyed visiting the Limahuli gardens, which share parallels with Otari, and seeing *Argyroxiphium sandwicense* on top of a volcano. A very neat landscape and plant species, well worth a Google.

We've visited sites around the lower North Island to collect plants for DOC. We intend to grow these in our nursery, and hope to return some to the wild. Staff visited Whanganui and Mangaweka to collect *Pimelea actea* and *Celmisia* 'Mangaweka' respectively.

Closer to home, we have finally planted out *Brachyglottis kirkii* var. *kirkii* adjacent to the forest. The plants have been grown from cuttings sourced from various sites in the Wellington region with GWRC and DOC. We intend that they will begin to return to the forest as a self-sustaining population. We've previously had little success planting them out, so in an effort to recreate an epiphytic situation, we have planted them in pots made from hollowed-out mamaku trunks (sourced from dead mamaku at the Botanic Garden).

Finally, many thanks to BotSoc for an excellent

submission on the *Botanic Gardens of Wellington draft management plan*. The written and verbal submissions were well received by councillors, and have helped shape the plan to good effect. While ostensibly similar to the previous plan, there is an increased emphasis on partnerships to achieve our objectives, a more focused look at our education and conservation roles, and how we will manage the forest using wider Council resources.

Rewi Elliot, Curator/Manager, Otari Native Botanic Garden and Wilton's Bush Reserve. E-mail: rewi.elliott@wcc.govt.nz

Facebook: Wild Plants of Wellington

I've set up a Facebook group called "Wild Plants of Wellington".

The "About" description says: "For anyone interested in native or introduced plants occurring wild in the wider Wellington region. Notification of relevant news and events is welcome."

Our interests are similar to the Wellington Botanical Society (<http://www.wellingtonbotsoc.org.nz/>), which isn't yet on Facebook."

If you're on Facebook, and would like to take a look, search for "Wild Plants of Wellington" in the search box at the top left of your Facebook page. If it looks of interest, click the "Join Group" button (near the lower right corner of the panoramic picture at the top of the screen).

Posts so far include:

- Photos from the field trip to Porirua Scenic Reserve.
- A comment from Phil Garnock-Jones about this season's flowering of rangiora.
- A link to a blog post I did about Māori plant names for Māori Language Week.

It is a "Public" group, so any member can post news and questions. Julia White and I are the administrators for the group. All requests to join the group have to be approved by Julia or me.

Leon Perrie

WCC's Parks, Sports & Recreation restructured

As a result of the recent Wellington City Council (WCC) restructuring of Parks, Sport & Recreation (PSR), there are some new teams and positions to enable PSR to deliver the desired environmental and community outcomes more effectively.

PSR now has an *Urban Ecology* team: Myfanwy Emeny / Team Leader, Illona Keenan / Biosecurity Technical Advisor, and Anita Benbrook / Restoration Technical Advisor. The Urban Ecology team is responsible for coordinating and managing WCC's biodiversity and biosecurity activities. They contribute to the management of the city's open spaces and reserves through ecological advice, and the protection and restoration of indigenous biodiversity. The Urban Ecology team is within the *Open Spaces and Parks* (OSAP) team, which is managed by Amber Bill. Also in the OSAP team are the Park Rangers, Botanic Gardens of Wellington, Berhampore Nursery and the Cemeteries.

There is also new *Customer and Community Partnerships* team (CCP) in PSR to encourage more people to take part in recreation and make greater use of the

city's open space and indoor facilities. Tim Park is the new Environment Partnership Leader, joining the team from Greater Wellington Regional Council where he was Senior Biodiversity Coordinator. Tim will identify environmental recreation needs and boost participation in environmental restoration recreation. Other key positions in this team are Elspeth McMillan / Education Partnership Leader, Fran McEwen / Health and Wellbeing Partnership Leader, and Glenn McGovern / Sports and Clubs Partnership Leader. The CCP team is managed by Karyn Stillwell.

Myfanwy Emeny

Biodiversity Action Plan

The 2007 Wellington City Council Biodiversity Action Plan is being reviewed. This document guides our biodiversity activities, identifies local priorities and actions to protect and restore biodiversity, and engage the general community.

A draft will be out for public consultation towards the end of October.

Myfanwy Emeny

*Team Leader, Urban Ecology, Parks, Sport & Recreation
Wellington City Council*

Interesting trees at the Aro Street bus terminus

Although there are no heritage or notable trees in Aro Valley, there is a cluster of interesting trees at the top of Aro St.

At the entrance to Polhill Reserve, on the freshly planted slope above the community garden and orchard, are two trees, a native kawaka / *Libocedrus plumosa* and a dawn redwood / *Metasequoia glyptostroboides*. On the opposite side of the road, by 206 Aro St, is a cluster of four more dawn redwoods. These may have been grown for, and surplus to, the Sesquicentennial celebration. A little further on, in cages on the grassy slope at the start of Raroa Rd are eleven ash trees / *Fraxinus excelsior*.

All these trees, native and exotic, were planted by Wellington City Council since the 1980s, chosen for reasons now obscured by time. They have thrived and become well established.

The only native tree amongst the three species, kawaka / *Libocedrus plumosa*, occurs naturally in lowland forests in the northern North Island and south to the Bay of Plenty. It reappears in the northwest corner of the South Island.

This lonely kawaka, on the slope above community garden and orchard at the top of Aro St, is the last survivor of several kawaka planted along the edge of the entrance to Polhill Gully. The others didn't thrive and were replaced by a row of pūriri (a species not naturally occurring in Wellington), and kōwhai. This one survivor does produce seed, but being so far from its usual habitat is unlikely to produce seedlings that will survive in Polhill Reserve. At the recent planting day, on 7 June 2014, volunteers planted low-growing species, e.g., flaxes and divaricating shrubs, on the slope around it and the other large tree there, a dawn redwood.

The kawaka, a narrow, upright conifer, grows slowly to 12m, with a spread of c. 2.5m. It has tiny, bright green, scale-like leaves on flattened fern-like branches. Looking closely you will see that the scales form two rows of larger

leaves alternate with two rows of smaller leaves. Older trees will have stringy bark and timber which is a beautiful deep red. An excellent lawn specimen, it also does well in containers. *Libocedrus* from the Greek, means fragrant cedar, although these trees are really more closely related to cypresses; *plumosa*, from the Latin, means feathery. There are three species in New Caledonia and two in NZ, the odd, but not uncommon, connection of the flora of these two, now distant land masses.



The distinctive cones of kawaka.

Its wind pollinated seeds are formed in cones, whose four, thin, dry and woody scales, each with a distinctively sharp spine, are closely grouped on a central stem. The winged seeds form on the scales and eventually sift out between them. As well as these seed cones, kawaka also has smaller yellow pollen cones, on the same trees. You can see more kawaka in the Botanic Garden and Otari-Wilton's Bush.

Nowadays it is usual to see appropriate native trees planted in the valley and catchment, not exotics, but it is interesting to keep a record of what has happened in Aro St historically.

Julia Stace

DOC's Wellington-Hawke's Bay Region protects land

The Kaitoke Hill Conservation Covenant comprises a small remnant of native bush (c. 0.6422 ha) at 1242 Rimutaka Hill Road/SH2, opposite Mangaroa Scenic Reserve.

The covenant, adjacent to SH2, is within certificate of title WN572996, which resulted from the NZ Transport Agency's disposal of surplus land following switchback realignment for the 70 km/h State Highway improvement project. The Reserves Act covenant comprises hard beech forest with regeneration including black beech, mānuka-kāmahi, with occasional large northern rātā and some tōtara. Once the property transfers from the Crown into private ownership, future access is by arrangement with the new owner. DOC may provide technical advice to aid the restoration of indigenous plant and animal species in the covenant.

*David Bishop, Senior Advisor (SLM)
National Office, DOC*

National Trust covenants

Landowners have established QEII National Trust Open Space Covenants to protect more than 4000 special sites, covering about 125,000 ha of valuable environments and threatened species' habitats on their land. That is an area equivalent in size to the combined areas of Aoraki / Mt Cook, Abel Tasman and Mt Egmont national parks.

You can support the trust's work by becoming a member of the trust. Subscriptions: individual—\$30, family—\$45, life—\$500. QEII National Trust, Box 3341, WN 6140. 04 472 6626, 0800 4 OPENSACE (0800 467 367). Membership entitles you to the magazine *Open Space*, published twice a year, and a copy of the trust's annual report to Parliament.

Editor

NIWA Wellington Science and Technology Fair 2014—Botanical Society Prize

Sophie Russell, a year-8 pupil at Northland School, won this year's Wellington Botanical Society prize for the best exhibit of a project involving NZ native plants.

Sophie's project compared the heat retention and rain-water runoff of three roofing types. She was able to show that a "Green Roof" planted with *Scleranthus*, *Aceana*, and small *Festuca*, minimised rainwater run off, and kept a building cooler than one roofed with corrugated iron, and one roofed with tiles. Her experiment showed that there was minimal difference in heat retention between these forms of roofing.

There were several other exhibits considered, all well-researched and well-presented. Sophie's project ticked all the boxes with her initial research, hypothesis, experimental method, and she provided a clear explanation and discussion.

Rodney Lewington

Rare plant discovery in the Wairarapa

Olearia gardneri / tree daisy is one of NZ's rarest plants. Until the chance discovery of an isolated thicket by the QEII National Trust's Wairarapa regional representative, Trevor Thompson, the total number of known plants in the wild was under 150, a population comparable to the critically endangered kākāpō.



Olearia gardneri.

The National Trust approved a covenant proposal this year that will protect 240 *Olearia gardneri* trees. With this population secure, the national threat status of the species will lift from Threatened/Nationally Critical, to Threatened/Nationally Endangered. With management these plants will be able to support the re-establishment of viable populations at other Wairarapa sites.

Anne McLean, Communications Advisor, QEII National Trust

Tom Moss Student Award in Bryology—Applications sought

Tom Moss was an active member of the Wellington Botanical Society for many years, and was a participant in the very first John Child Bryophyte Workshop in 1983.

To commemorate his name, his contribution to New Zealand 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 the Wellington Botanical Society. The *Tom Moss Student Award in Bryology* provides a small annual prize for the best student contribution to NZ bryology.

The 2014 Award will be made at the John Child Bryophyte Workshop to be held 28 November – 3 December in Katikati. Contributions that would qualify for the Award include:

- A student presentation at the Workshop relating to NZ bryology.
- A paper relating to NZ bryology.

Only one application per student will be accepted (i.e., either a presentation or a publication). The paper 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 25 October (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 university, and may include work on overseas bryophytes, as long as the work relates in some significant way to NZ bryology.

An Award of \$400 will be made by a panel of three judges attending the Workshop and appointed by the 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 2014 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.

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).

A. P. (Tony) Druce's Trip Book

Tony Druce kept in an exercise book a record of his 985 botanical field trips throughout NZ from 1934 to 1994, listing dates, destinations and fellow botanists. The book was too fragile to take a lot of handling, so the Wellington BotSoc committee had it photocopied, and called it *A. P. (Tony) Druce's Trip Book*. This made it more accessible. It has since been reprinted. A bibliography was added, and an obituary for Tony, with permission from the NZBotSoc committee, as it was written by the then Editor, Carol West, for NZBS Newsletter No. 56 June 1999.

We have copies available. \$15 each, plus \$3 p&p. Send your order to WBS, Box 10 412, WN 6143, bj_clark@xtra.co.nz, or collect yours, *post-free*, by asking Barbara Clark, ph 233 8202, to bring you a copy to a BotSoc meeting.

Road reserve above Karori Tunnel eastern portal

By special arrangement with WCC, we began planting appropriate indigenous species on this steep site in 2002, and as volunteers, we have since then kept the worst weeds at bay. However, for most of 2013 the site was closed to the public during extensive tunnel strengthening, and it has rapidly become overgrown again. The ground cover is almost all tradescantia, and woody weeds such as tree lucerne and karo, are up to several metres tall. Fortunately permission was given to us to remove a *Hoheria populnea*, a non-Wellington lacebark with its dozens of seedlings, but we still await WCC's attention to the karo and tree lucerne. Meanwhile, flax, several kōwhai and a large old cabbage tree are much favoured by birds visiting from Zealandia.

Barbara Mitcalfe

Smart-phone app for plant ID

Flora Finder App for Plant Identification

The Botany Department, University of Otago, has collaborated with MEA Mobile to make a smart-phone app that uses the camera function to help identify native plants

Editor

Queen Elizabeth Park extension

Grow Paekākāriki have succeeded in getting DOC to use credits from land taken from it for the Transmission Gully Motorway to extend the north end of the Tilley Triangle, north of Wainui Steam. This will provide complete protection for the significant sand-dune complex, more land for grazing, and more walking/cycling track opportunities. Grow Paekākāriki is supported by the Community Board which asked Kāpiti Coast District Council to support DOC, Greater Wellington Regional Council and the NZ Transport Agency to complete this development.

Paul Hughes, for Grow Paekākāriki

<http://www.opengeo.co.nz/GrowPaekakariki/info.htm>
or just Google "GROW PAEKAKARIKI"

A new online interactive key: *Cotoneaster* species in NZ

Cotoneaster is an ornamental shrub genus common in NZ gardens. None of the species are native to NZ; most have their wild origin in the Chinese Himalaya. Most species in the key are known from the wild, several species are troublesome weeds, and one is banned from sale (*Cotoneaster simonsii*, right). *Cotoneasters* are frost-hardy, some will grow under native forest canopies, and their fruit is spread by birds. These features make them invasive weeds in native forest and scrub, and in non-native agricultural ecosystems.

The number of naturalised and casual species in NZ has increased from 7 to 17 since *Flora Volume 4* (Bill Sykes, 1988). Because of the importance of this invasive weed genus, *Cotoneaster* is being revised by David Glennly for an online interactive Lucid key, and an online eFlora treatment. A first draft of the online key is now available at <http://www.landcareresearch.co.nz/resources/identification/plants/cotoneaster-key>. The key includes cultivated species, as will the eFlora treatment, because some of these are likely to naturalise in the future.



Some names used in the key will be unfamiliar to users of *Flora of NZ* Vol. 4, because there have been important publications on the genus since 1988. The main two are Jeanette Fryer and Bertil Hylmo's book *Cotoneasters* (Timber Press, 2009), and the 2003 *Flora of China* treatment of *Cotoneaster* by Lu and Brach (available online at <http://flora.huh.harvard.edu/china/PDF/PDF09/Cotoneaster.PDF>).

Source: *The Plant Press*, Allan Herbarium, August 2014.

Cuckoo migration

A fellow student at Massey University is running a research project investigating cuckoo migration patterns. He is seeking records of the first time shining cuckoos or long-tailed cuckoos are seen or heard this spring, so he can track their progress through the country. There is more information here http://www.massey.ac.nz/massey/about-massey/news/article.cfm?marticle_uuid=0C228534-C39C-F19D-468F-FF9C5E094F65.

Jamie MacKay

Japanese knotweed

Fallopia japonica is listed by the World Conservation Union as one of the world's worst invasive species. The invasive root system and strong growth can damage concrete foundations, buildings, flood defences, roads, paving, retaining walls and architectural sites. It can also reduce the capacity of channels in flood defences to carry water.



Fallopia japonica. Photo: Jeremy Rolfe.

It is a frequent coloniser of temperate riparian ecosystems, roadsides and waste places. It forms thick, dense colonies that completely crowd out any other herbaceous species, and is now considered one of the worst invasive exotics in parts of the eastern United States. The success of the species is partially attributed to its tolerance of a wide range of soil types, pH and salinity. Its rhizomes can survive temperatures of -35°C and can extend 7 m horizontally and 3 m deep, making removal by excavation extremely difficult.

Japanese knotweed is on the surveillance list under the Wellington Regional Pest Management Strategy, which is due for review. We may decide to be proactive, rather than wait for the draft of the next RPMS. I'll see if GW has a summary of known occurrences, and how it deals with them.

We could also contact MPI alerting them to this new information. Their Japanese knotweed web site was last updated in January 2010, and the only impact it describes is: "Once established, Asiatic knotweed forms dense stands that shade and crowd out all other vegetation, displacing native flora and fauna." The site tells readers to contact regional councils.

We will ask DOC what is known about locations of Japanese knotweed on public conservation land, and how DOC deals with it.

www.newsweek.com/japanese-knotweed-driving-men-murder-257257

Bev Abbott

David Holey (1938–2014)

We are sad to report that Dave died on 11 September. His main botanical activities were compiling lists of northern rātā and southern rātā in Lower Hutt's suburbs, and for several years leading BotSoc trips, in mid-December, around the suburbs, to see his favourite trees and their often wonderful floral displays.

Editor

Waikato River & district restoration planting guides

Focus on patterns, processes & communities.

For the past decade I have been part-time coordinator for Ecosourced Waikato. The group is made up of representatives of DOC, Waikato Regional Council, University of Waikato, Hamilton City Council, restoration practitioners and the nursery industry. When the group was established, availability of the right plants for restoration was a major impediment to restoration, and it was soon recognised that understanding of natural plant communities was also a limiting factor.

I have found that the best way to design a planting project is to get to know well, natural areas on a similar landform and watch them to see how they change over time. With the increased enthusiasm for restoration planting in the Waikato, comprehensive and area-specific guides to planting a native plant community seemed like the most useful contribution the group could make to this work.

Work continues, the first guides are available on the DOC web site, and others will soon follow. The guides identify a range of native species found in, and tolerant of, particular conditions, and provide guidance on the reconstruction of a community of plants which have a comprehensive range of strategies, reminiscent of natural areas and resilient to natural and man-made threats.

Wayne Bennett, Forest Flora

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

TRIP REPORTS

7 June 2014: Korokoro Stream, Belmont Regional Park

This area is early-phase regenerating bush with some open grassy areas along the stream. We had a damp overcast day, and spent five hours botanising our way up upstream from the end of Stratton Street to where the track begins to climb to Middle Ridge. For me, the highlight of the trip was a rocky outcrop about two thirds of the way up, with an interesting variety of herbs on it including *Crassula mataikona*, *Leptostigma setulosa* and *Helichrysum filicaule*. Other good specimens found were *Dicksonia fibrosa*, an *Olearia solandri* about 2 m tall, and a large *Astelia fragrans* near where we turned back. There were a few concerning weeds in the area, including *Hypericum androsaemum* (tutsan), *Acacia melanoxylon* (Tasmanian blackwood) and *Selaginella kraussiana*. Chris Horne noted that the pine plantation on the true left of the valley had gone. We found some browse damage; there is no possum control in the area. Goats are controlled annually, and the last survey (using 'Judas' goats to check for others) found no goats in the entire park, though the ranger said wild sheep may be present. There is a well-established pūriri planted outside the classroom/woolshed near the carpark; there was some concern raised that this might cause a weed problem. Birds seen/heard on the trip were fantail, bellbird, grey warbler and tūi. We also found a wētā hotel harbouring two wētā and a large spider.



Leptostigma setulosa (left, round hairy leaves) and *Crassula mataikona* (right, narrow leaves).
Illustration: Eleanor Burton.

Participants: Eleanor Burton (leader/scribe), Gavin Dench, Jill & Ian Goodwin, Chris Horne, Rodney Lewington, Pat McLean, Barbara Mitcalfe, Allan Munro, Lea Robertson, Darea Sherratt, Sunita

Singh, and Mackie the dog. We thank Pat Enright for providing plant lists for the park, and Jeremy Paterson (GWRC ranger) for access to the classroom and for information on the area.

21 June 2014: Te Mārua Bush workbee

Since the early 1990s BotSoc has been advocating for Te Mārua Bush (TMB), Upper Hutt, to be enlarged, to improve its sustainability. A brief description of the plight of this Key Native Ecosystem which I gave at BotSoc's 16 June evening meeting, and fine weather on the day, may have helped to produce a better workbee turn-out than usual. At the site, GWRC ranger Steve Edwards guided us to a roped-off section which, when fenced and planted, will extend TMB considerably to the northeast, by

including what is at present, part of the contiguous pony paddock. On the day, we concentrated on weeding, especially *Hoheria populnea*, (a non-Wellington lacebark species which took hold in TMB several years before it became noticed), masses of broom and blackberry invading from the pony paddock, and the usual assortment of weeds and rubbish which had blown in, or been thrown in, from the SH2 / Kaitoke Hill Road side. As usual, the worst weed areas were the TMB margins, which will

need some hard work again at our November workbee. We look forward to planting the new extension in Autumn.

Participants: Trudi Bruhlmann, Barbara Clark, Steve Edwards, Ian Goodwin, Rodney Lewington, Sue Millar, Barbara Mitcalfe (scribe), Syd Moore, Hugh & Lea Robertson, Allan, Glennis (trip leader) & Graeme Sheppard, Darea Sherratt.

5 July 2014: Haywards Scenic Reserve

We did a five-hour circuit in this reserve on the Eastern Hutt hills. We went up Dry Creek Zigzag Track, to Kōnini Saddle Track, and descended the Ngapunga and Lomaria Tracks to our entry point at the end of Whites Line East.

Despite its homogenous, uninteresting appearance from the floor of the Hutt Valley, this is wonderful, diverse, regenerating forest ranging from areas of broadleaf species such as pukatea, māhoe, kāmahī, some huge old kānuka and mānuka, scattered old podocarps, black and hard beech on the dry ridges, and the odd gorse bush still hoping for a clearing.

In the creek beds were many young nikau and some mature ones on the damp hillsides above. Higher up there was plenty of kiekie, some of which was setting fruit. Wonderful sprays of red supplejack berries grew close to the track. This was no surprise as up and down the steep hillsides were dense, impenetrable areas of supplejack, well established under the canopy. We saw *Metrosideros fulgens* in flower.



Metrosideros fulgens. Photo: Jeremy Rolfe.

There were few weeds lower down near the Whites Line East entrance but in the upper reaches of the Zigzag Track climbing asparagus has got away. Himalaya honeysuckle, tagasaste and a patch of *Selaginella* close to the main track should go. *Ehrharta erecta* grows along the track, a shade-tolerant, invasive grass. Some native species, e.g., pūriri, *Hoheria populnea* and many karaka were growing here, out of zone.



Ripogonum scandens. Photo: Jeremy Rolfe.

It was interesting to see the similarity of *Leptopteris hymenophylloides* to the many *Hymenophyllum* filmy ferns in abundance on the Zigzag Track. It was clear why this *Leptopteris* species is so named—when small it is hard to distinguish from the filmy ferns. The clue is to look closely for the reproductive structures of *Hymenophyllum*, on the edge of the frond; if absent, the filmy fern is a small *L. hymenophylloides*."

In some sunny spots on the zigzag track, there were many *Acianthus sinclairii* in flower. At about the same size as these tiny orchids was a sprinkling of the delightful, green, butterfly dicotyledons of the beech trees, germinating as a result of this, the first mast year since 2008.



Hard beech (*Fuscospora truncata*) seedling. Photo: Jeremy Rolfe.

Few birds were seen or heard although there was evidence of pest trapping. We heard fantail, grey warbler, tūi and bellbird.

There were some huge 'worm' holes in soft mud on a damp bank that only Barbara Mitcalfe had seen before, in Stable Gully in Wellington's Botanic Garden. An e-mail to NatureWatch found out they were the hatching place of the giant native dragonfly, *Uropetala carovei*, which has a wing span of 125 mm. Exoskeletons were found on the ground below. Images of this and some plants seen are on the link: <http://naturewatch.org.nz/calendar/leonperrie/2014/7/5>

This walk is mostly under bush cover, so would be sheltered in bad weather. However it was a fine day, and the steep tracks were not too slippery. Several *Metrosideros* vine species, orchids and toadstools indicated that this track would be interesting to botanise at any time of year. The reserve has a network of tracks, some connecting suburban road ends, and others going up to the firebreak along the ridge. Many botanical surveys have been done here since Geoff Park did his in 1971. They make a good record of the succession from gorse to bush on the clay and greywacke hillsides.

We covered only part of the reserve, but we had an extensive plant list for the entire reserve, updated by Pat Enright and Chris Hopkins in June. The only additions to their plant list were *Blechnum novaezelandiae* (an oversight) and *Juncus edgariae*.

Participants: Bev Abbott, Sam Buckley, Gavin Dench, Jill & Ian Goodwin, Chris Hopkins, Chris Horne, Sheena Hudson, Rodney Lewington, Pat McLean, Barbara Mitcalfe, Mick Parsons, Leon Perrie, Lara Shepherd, Darea Sherratt, Sunita Singh (deputy leader), Julia Stace (leader/scribe), Julia Wilson-Davey.

2 August 2014: Porirua Scenic Reserve

A forecast of gale northerlies and rain did not deter 17 participants (mostly members, but with a few extras). In any case, we were on the leeward side of a hill and under tallish forest; a little dark but otherwise good winter botanising.

Porirua Scenic Reserve is one of the best forest remnants I've seen in the Wellington area. Admittedly, I may be biased given the lush groundcover is dominated by ferns (particularly *Blechnum filiforme* and *Microsorium scandens*). It reminds me of the northern North Island forests of my formative botanical years. The coastal/lowland influence is strong, with the canopy largely kohekohe. This was fruiting abundantly, as was the nikau.

We climbed the main track which begins next to Camp Elsdon on Raiha Street. Although steep in places, the track is well-formed and, traversing the side of a gully, provides excellent viewing of the underside of the canopy trees growing in the gully. The track reaches into upland scrub in the south-western corner of the reserve, which is where we turned around. From there, it is possible to walk through farmland to Colonial Knob itself and/or to DOC's nearby Colonial Knob Scenic Reserve. Porirua Scenic Reserve is administered by Porirua City Council.

With 156 hectares, there are other opportunities for future exploring on subsidiary tracks (which are not mapped on the official brochures).

Porirua Scenic Reserve has been well-botanised previously (see species list on NZPCN website, principally by Pat Enright). We made few additions: *Hypochaeris radicata* (catsear) and *Iris foetidissima* (stinking iris), along with bellbird and falcon.

Highlights included: one *Raukaua edgerleyi* (raukawa), c. 4 cm d.b.h., epiphytic on *Cyathea smithii* (kātote) and previously noted only from a different part of the reserve; large *Laurelia novae-zelandiae* (pukatea); *Ileodictyon cibarium* (common basket



Adiantum viridescens is uncommon in the Wellington region. Photo: Leon Perrie.

fungus); and the fern *Adiantum viridescens*, which is uncommon in the Wellington region. We noted, near the entrance, trackside seedlings of *Prumnopitys taxifolia* (mataī) and *Podocarpus totara* (tōtara), some of which may be planted while others looked self-sown. Seedlings of *Corynocarpus laevigatus* (karaka) were abundant in places, but we did not note many (if any) large individuals.



Leaf of juvenile *Raukaua edgerleyi*. Photo: Jeremy Rolfe.

We wondered if the poor development of the forest tiers between canopy and groundcover reflected earlier browsing pressure. However, testament to the success of the current pest control were the numerous (and vocal) tūi, abundant kohekohe and nikau fruit set, and lush groundcover which included carpets of nikau seedlings in places.

Chris Horne asked Glen Falconer, Team Leader, Pest Animal, Greater Wellington Regional Council, to comment on this: "pest animal control began in 1996, but more intensive management started in 2001 and continues today targeting possums, rats and mustelids. There are approximately 214 bait stations and 31 DOC200 traps in the council reserve and adjoining privately owned Mill Creek. Pikarere Farm also has possum and mustelid control in place to try to slow down re-invasion from the southwest. Self-introductions of kākārīki, whitehead and bellbirds occurred about 2003-04. Rodent and bird monitoring occurs at the site."

We're lucky to have this biodiversity treasure on our doorstep. We also now know it makes a good (botanical) port in a winter storm. The rain set in as we departed the car park.

Participants: Gillian Candler, Barbara Clark, Gavin Dench, Ian Goodwin, Jill Goodwin, Mark Harris, Rick Holmes, Chris Hopkins, Chris Horne, Barbara Mitcalfe, Chris Moore, Mick Parsons, Leon Perrie (co-leader, scribe), Lara Shepherd (co-leader), Sunita Singh, Roy Slack, Adrian Still.

6 September 2014: East Harbour Regional Park

Rain forced cancellation of this field trip.

Registration form for summer trip to Nelson Lakes: 7–13 January 2015 (returning on 14th)

Based at Travers-Sabine Lodge, St Arnaud

Name(s):
Address:
Home phone: Mobile: e-mail:
Emergency contact (in the event of an accident or other emergency):
Name: address/ phone contact:

Expected arrival date	(please circle date) We can check in any time after midday on the 7th. 7th 8th 9th 10th 11th 12th 13th
Expected departure date	(please circle date) We must be out by midday on 14th. 8th 9th 10th 11th 12th 13th 14th
Mode of travel to camp	Own car bus other (detail)
If by car, is it available for day trips?	Y/N How many passengers could you take? []

Those intending going by motor vehicle will need to make ferry bookings as soon as practicable.

Have you been to this area before? Y N	Do you have a 4WD? Y N (it may be helpful for some access)
--	---

We have secured the exclusive use of Travers-Sabine Lodge, State Highway 63, St Arnaud. Ph 03 521 1887.
<http://www.nelsonlakes.co.nz/accommodation-in-st-arnaud/travellers-lodge>.

The charges indicated below are based on 30 participants staying in the facility.

If you intend staying in one of the nearby motel units (\$130 per night), or studio units (attached to the lodge), you will need to make your own bookings.

There is also a DOC camp nearby at Kerr Bay but the Lodge management have made it clear that those who choose to camp are not welcome to take advantage of the lodge facilities (for eating and washing etc).

Please indicate your accommodation preferences (circle choice):

Bunk room	4 rooms available that sleep 5–6 (approx. \$20 per night pp)
Individual double room for two	4 rooms available (first in first served) (approx. \$65 per night for two)
Other options (please make your own arrangements)	Motel Studio Other

Please send this form and a deposit of \$350 before 15 November to:

Mick Parsons: 32 Fitzroy St, Wadestown, Wellington 6012 or attached to e-mail mtparsons@paradise.net.nz

Phone: 04 972 1148 or 027 249 9663.

In lieu of cheque please deposit \$350 to the Society's Account **02 0536 0017812 02** stating your name in the details. This deposit will allow us to purchase food and pay the accommodation bill before we leave.

St Arnaud is central to many sites of botanical interest in the vicinity. Within reasonable driving distance we could botanise Red Hills, Howard Valley, Rainbow Skifield and much more.

For further details, please contact Mick. More information on trip details will be sent to those registering interest.



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 2015 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

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.