

Wellington Botanical Society

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



NEWSLETTER December 2012

Previous issue: September 2012

ISSN 1171-9982

From the President

At our October meeting, we congratulated Ciaran Sim, winner of Wellington Botanical Society's 2012 NIWA Science Fair prize for the best project involving native flora. Ciaran's project was "Plants vs Bacteria". It is good to see an interest in botany being fostered at a young age.

At our September, October and November meetings, our speakers gave us glimpses of what is happening in the natural world; from the unique habitats of the Denniston Plateau, to the coastal sand dunes of the Wellington region, and the marine environment of corals. Each of these natural ecosystems is subject to the influence of humans, and their impacts on the environment and climate. Can these natural ecosystems adapt to withstand the rate of change? Each step we take to reduce the impact of change on our natural environment helps save natural ecosystems for the future. It was good to read a recent Environment Court decision extending rules in Waitaki District Council's District Plan, intended to protect native plants in sensitive areas, by including high-country land freeholded under tenure review; also to read in the *DomPost*, 26 November, about the Morgan Foundation upholding the public interest in the leading work of Horizons Regional Council fighting to protect the quality of natural water.

In this newsletter are details of a photo competition, a new venture for BotSoc, but a long-running activity of the Botanical Society of Otago and Otari-Wilton's Bush Trust. It will encourage a new way of looking at NZ's botany and provide BotSoc with quality images to refresh our display boards, and to use in future Society publications, to enhance communication about NZ's botany.

On behalf of the committee, I wish members a very happy Christmas and New Year, and safe travels over the holiday period.

Richard Herbert

Articles for web site

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

www.wellingtonbotsoc.org.nz

Please send your article to:

Richard Herbert

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

Writing for the Bulletin

Do you have a botanical observation, anecdote, or insight that you could share with others in BotSoc? If so, please consider contributing it to the Wellington Botanical Society Bulletin. There is still plenty of space in the next issue. For more details and assistance, contact Leon Perrie at leonp@tepapa.govt.nz or 381 7261.

Wellington Botanical Society

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Send your subscription to Treasurer, WBS, Box 10 412, Wellington 6143.			
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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, the first weekend in February, at Easter and the first weekend in December.

DEADLINE FOR COPY FOR NEXT ISSUE – 20 April 2013

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: FEBRUARY–MAY 2013

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.

The committee

Saturday 2 February: Field trip

Wainuiomata River, west branch

Botanise impressive rainforest in this part of the 'mainland island' managed by Greater Wellington Regional Council. We will study the understorey, and mature podocarp and northern rātā forest, and seek to determine if nikau is present, and if not, why. Meet 9 a.m. SHARP at Reservoir Rd, off Whitcher Grove, off Moores Valley Rd, Wainuiomata. Booking is essential, so we can advise the GWRC ranger. Leader: Chris Hopkins 564 3980 tbc, deputy-leader: Chris Horne 475 7025.

Monday 18 February: Evening meeting

NZ spider orchids: new species; pollination studies

Speaker: Carlos Lehnebach, Curator of Botany, Te Papa. will present findings of a study of the diversity of flower form and colour in the widespread and variable native spider orchid, *Nematoceras trilobum* agg. He will illustrate the different forms in NZ, their habitats and key features used to identify them. He will discuss genetic evidence that suggests some of these entities should be recognised at species level, results of preliminary pollination studies, and orchid-fungus gnat interaction.

Saturday 2 March: Field trip

Cannon Point Walkway, Upper Hutt

Botanise regenerating forest, including near the historic Birchville Dam, then descend from Cannon Point trig and return via the Hutt River track. Meet 9.30 a.m. at Bridge Road car park, Birchville. Catch 8.05 a.m. train from Wellington to Upper Hutt. Ring Sheelagh to arrange to be met. Leader: Sheelagh Leary 527 7380.

Monday 18 March: Evening meeting

Puangiangi Island, Marlborough Sounds

Speakers: Barry Dent and Sue Freitag (and possibly Tony Gaze), will discuss Fauna Recovery NZ's recently acquired 63-ha island in the Rangitoto Islands group north-east of D'Urville Island, and their plans for its restoration and management. Background: *Puangiangi Island*. BotSoc newsletter, pages 12–13, September 2012.

Easter 29–31 March: Field trip

Rangitikei and Foxton areas, Manawatu

Friday: Botanise Tawhirihoe Scientific Reserve and possibly Pukepuke Lagoon near Tangimoana. Saturday: Botanise scrub and dune lakes north of the Rangitikei River, Scotts Ferry, and around the mouth of the Rangitikei River. Sunday: botanise coastal turf at Himatangi, Round Bush (Omarapapaku) near Foxton, and possibly the Manawatu Estuary at Foxton. Accommodation: Yet to be decided but will be at a Bulls or Sanson motor camp/motel. Food: potluck dinner Friday and Saturday. Meet: 10.30 a.m. Friday at Rosina Road turn-off to Tangimoana from SH1, 20 km north of Foxton (just past big grain silos). Leader: Mick Parsons 04 972 1148 or 027 249 9663. Book promptly to receive further information about trip. NOTE: check web site for further details.

Monday 15 April: Evening meeting

The mushrooms of NZ

Speaker: Geoff Ridley, Principal Scientist, Environmental Protection Authority, Wellington, will give an introduction to the taxonomy, ecology, and field characteristics of the larger fleshy fungi (mushrooms) of NZ.

Saturday 4 May: Field trip

Taita Scientific Reserve

Botanise this regenerating forest on the eastern Hutt hills, behind the former Soil Bureau and Botany Division, DSIR, buildings. Catch 8.35 a.m. Hutt line train from Wellington to Taita Station. Meet 9.15 a.m. on Eastern Hutt Rd, at picnic area with large tōtara, north of station underpass. Co-leaders: Chris Horne 475 7025; Barbara Mitcalfe 475 7149. Reference: NZ DSIR Bulletin 124. *Botanical survey of an experimental catchment, Taita, NZ. The central catchment at Taita Experimental Station*. A P Druce. 1957.

Saturday 18 May: Field trip

Te Marua 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 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 and planting gear: gloves, kneeler, weed bag, and your favourite weeding and planting tools e.g. trowel, hand fork, grubber, loppers, pruning saw, jemmy. Meet at Te Marua Bush at 9.30 a.m. (250 m north of Te Marua Store and then left, off SH2 for 50 m, along the road to Te Marua Lakes, Kaitoke Regional Park. 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 20 May: Evening meeting

Please share your botanical slides and photographs taken on BotSoc trips, your paintings, drawings and your botanical readings. Slides limited to 20 per person. Plant specimens would add to a memorable evening. Auction: Bring your spare botanical or other natural history books to auction. Some of the books listed in this newsletter may still be available.

Members' evening

AWARDS AND GRANTS

31 March. Wellington City Council Environmental Grants.

• See entry in branchout@wcc.govt.nz

EVENTS

- 3 January – 24 March. **Great Outdoors Summer Events 2013.** Check Greater Wellington Regional Council's web site www.gw.govt.nz/summerevents for information on more than 50 free or cheap events in the region's spectacular parks and forests network. Trips include guided visits to Baring Head/ Ōrura-pouanui and Whitireia Park – both recent additions to the regional council's park network.
Ross Jackson, GWRC. 04 384 5708, ross.jackson@gw.govt.nz
- 15–23 January. **University of Canterbury summer course: practical field botany (BIOL305).**
Dr Pieter Pelsier pieter.pelsier@canterbury.ac.nz 03 364 2987 ext 45605
- 25–27 January. **ECO Summer Gathering. Arthur's Pass Outdoor Education Centre, Canterbury.**
*Contact: Geoff Keey: 03 318 9183, geoff.keey@gmail.com,
Diana Shand: 021 471 989 diana.shand@extra.co.nz;
ECO Office: (04) 385 7545 eco@eco.org.nz.*
- 1–4 February. **Nelson Anniversary Weekend camp.** Hanmer Springs / Southern Molesworth, run by Nelson Botanical Society. Accommodation: a large house in Hanmer. Day trips into southern part of Molesworth Station, including Lake Tennyson, and possibly Amuri skifield. Look for penwipers and other special scree plants, and interesting wetland herbs.
Leader: Cathy Jones 03 546 9499. Cathy.jones@extra.co.nz
- 21–23 February. **NZ Epiphyte Workshop.** Brian Bellringer Pavilion, New Plymouth. Keynote speaker: Prof. Gerhard Zotz, University of Oldenburg. Important dates: 19/1: abstract submission deadline; 1/2: registration deadline; 21/2: symposium; 22/2: Epinet development & New Plymouth field trip; 23/2: Egmont National Park field trip.
www.waikato.ac.nz/eri/epiphyte epiphytes@waikato.ac.nz
- 23 – 27 May. **NZ Plant Conservation Network conference.** Parnell, Auckland.
Contact Info@nzpcn.org.nz to go on mailing list.

PUBLICATIONS

- 1a. **Wellington Hawke's Bay Conservation Board.** Annual Report 2011 –2012 to the NZ Conservation Authority.
- 1b. **Whareroa Farm Plan.** Compiled by Peter Handford Associates with input by DOC staff and Guardians Trustees.
 - *Wellington-Hawke's Bay Conservancy, Department of Conservation, Box 5086, WN. 04 471 0726.*
2. **Evaluating the environmental impacts of fracking in NZ: an interim report.** 12/12. 119 pp.
 - *Parliamentary Commissioner for the Environment, Box 10 241, WN 6143. Pce@pce.parliament.nz; www.pce.parliament.nz*
3. **Wellington Science & Technology Fair.** Programme 29/8 – 1/9/12.
 - *Sylvia Nichol, NIWA, PBag 14 901, Kilbirnie, WN.*
4. **Open Space.** 83 10/12: Brian Molloy QEII National Trust scholarship fund for PhD research in NZ ecology; focus on Marlborough (including Puangiangi Island – see WBS newsletter Sept. 2012); restoring the balance in forest remnants; protecting biodiversity on private land; statistics re registered and approved covenants; weta good indicators of forest health; Masterton covenants registered: Wyeth & Gawith Trustes – 6.2 ha, forest; Wharrie & MRI Wairarapa Trustees Ltd – 4.2 ha forest; etc.
 - *QEII National Trust, Box 3341, WN 6140. info@openspace.org.nz*
- 5a. **Greater Wellington Regional Council (GWRC) Annual Report 2011/12.** Parks & forests pp 111 – 118; Land management pp 129 – 138.
- 5b. **GWRC Regional Plan Review newsletter no. 4, 11/12*:**
 - public engagement; Community Care Group example; integrated catchment management; primary industry example; local government example; whaitua (zone) committees – pulling the strands together.
 - www.gw.govt.nz/your-environment-regional-plan@gw.govt.nz
 - 5c. **State of the environment report cards*:** www.gw.govt.nz/ser
 - 5d. **Regional Pest Management Strategy – Operational Plan 2012/13.** Inspect at GWRC offices, and www.gw.govt.nz
 - 5e. **Air, land and water in the Wellington region: State and trends.**
 - **Shelley Martin, Project Coordinator, Greater Wellington Regional Council, Box 11 646, WN 6142. Ph 830 4237.*
 - 6. **Branch Out.** Spring 2012: planting in Prince of Wales Park; Otari photo competition; Oruaiti Reserve – dawn blessing; tracks update; Myfanwy Emeny – new Acting Manager, Community Engagement & Reserves; grants – applications close 31 March; Grasslees Reserve upgrade – ideas sought; etc.
 - Branchout@wcc.govt.nz
 - 7. **Kauri Care Guide – Help stop kauri die-back.**
 - *Auckland Council. 0800 NZ kauri (695 2874). www.kauridieback.co.nz*
 - 8a. **Wellington Botanical Society.** Bulletin no. 54 11/12: \$20 for non-members in NZ, Australia and the Pacific, \$US15 elsewhere. Copies were posted to members on 27 November. See article in this newsletter.
 - 8b. **Wellington Botanical Society Bulletin back issues.** Many

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

issues available – if you are interested, contact jchorne@paradise.net.nz 04 475 7025. \$2/copy if collected at evening meetings or field trips, or \$4/copy incl. p&p.

• *Wellington Botanical Society, Box 10 412, WN 6143.*

9. **NZ Botanical Society.** 110 12/12: news from regional botanical societies, including the recently formed Taranaki Botany Group; Cathy Jones receives H H Allan Mere award; John Ross's letters to John Buchanan (1860-1867); Norman Ambrose Potts – biographical sketch; book review: *An illustrated guide to common grasses, sedges and rushes in NZ*. Paul Champion, Trevor James, Ian Popay & Kerry Ford, etc. Subscriptions: \$25 (\$18 if paid by due date on invoice); full-time students - \$12 (\$9 if paid by due date on invoice).

Back issues of newsletter: \$7 each.

• *NZBS, c/- Canterbury Museum, Rolleston Ave, CH 8013.*
www.nzbotanicalsociety.org.nz

10. **NZ Plant Conservation Network.** Trilepidea 106 9/12: *Litsea calicaris*; illustrated glossary online; conference 23-26 May, Auckland; rediscovery of *Pittosporum obcordatum* on Banks Peninsula; Auckland Zoo's Te Wao Nui – five precincts, one journey; NZ alpine flora & SW Australia – differences & similarities; NZ's marine algae online; specimens of introduced and native *Utricularia* sought; plant conservation awards; etc. 107 10/12: re-developing web site; *Olearia cheesmanii*; all NZ *Dracophyllum* species on web site; NZ bluebells - *Wahlenbergia*; Sir John Smith-Dodsworth 1935-2012; *Auckland's remarkable urban forest* – Mike Wilcox; key to flowering plant genera released; etc. 108 11/12: benefit to Whaingaroa Harbour, Raglan, from 450 km of riparian planting; *Gingidia montana*; conference 23 – 26 May, Auckland; 1.4 million plant records; seed dispersal mutualisms and early-stage plant recruitment in NZ alpine ecosystems; monitoring Alford Forest, Canterbury; etc.

• *NZ Plant Conservation Network, Box 16 102, WN.* Events@nzpcn.org.nz

11. **Botanical Society of Otago.** 67 10/12: *Above the treeline – a nature guide to the NZ mountains*. Sir Alan Mark; proposed data repository – prehuman vegetation of NZ; the case for the lost pycnidia lichen; etc.

• *BSO, Box 6214, Dunedin North 9059.*

12. **Canterbury Botanical Society.** 11/12: *Pittosporum obcordatum* on Banks Peninsula: University of Canterbury summer course: practical field botany; etc. 12/12: NZ Plant Conservation Network conference 23–26 May; etc.

• *CBS, Box 8212, Riccarton CH 8440.*
info@canterburybotanicalsociety.org.nz

13. **Ecolink.** 10/12: redesigning for the future – the case for Avon River park; etc.

• *Environment and Conservation Organisations of NZ Inc, Box 11 057, WN. 04 385 7545; eco@eco.org.nz www.eco.org.nz*

14. **Forest & Bird.** 345 8/12: Denniston Plateau; biodiversity 'offsetting' and native plants; Mokihinui River saved; mangroves; conservation for everyday life; nature the economic driver; greening our farms; NZ native plants and scurvy; etc. 346 11/12: win for Mackenzie's native plants; Denniston Plateau; mining threatens Cobb Valley; Te Urewera; West Coast wetlands; Te Awaroa - network for river restoration; Mokihinui River; Water Conservation Orders; a Horowhenua forest among farms; etc.

• *Royal Forest & Bird Protection Society, Box 631, WN 6140.*
Office@forestandbird.org.nz www.forestandbird.org.nz

15. **Otari-Wilton's Bush Trust.** 12/12: chair's report; curator's report; photo competition; *Veronica macrantha*; etc.

• *OWB Trust, 160 Wilton Road, Wellington 6012.*

16. **Friends of Wellington Botanic Garden.** 12/12: review of Combined Management Plan 2002; etc

• *FoWBG, Box 28 065, WN 6150.* www.friendswbg.org.nz

17. **Friends of Baring Head.** No.3, 9/12: Mark McAlpine, new ranger for East Harbour Regional Park; Baring Head / Ōrua-pouanui amendment to Parks Network Plan adopted by Greater Wellington Regional Council; etc. Subscriptions (1 July – 30 June): individual (waged \$20, unwaged \$10), family \$30, organisation \$50.

• *Friends of Baring Head Charitable Trust, Box 38 076, Te Puni Mail Centre, Lower Hutt 5045.*

18a. **Field Guide to New Zealand's Native Trees.** John Dawson & Rob Lucas

18b. **Above the Treeline by Alan Mark – Due January 2013**

18c. **New Zealand's Native Trees. John Dawson & Rob Lucas.** (standard edition)

18d. **Managing Pests and Diseases.** Rob Lucas.

Pre-Christmas offer: 20% discount to BotSoccers and free delivery in NZ. Check new web site to obtain the discount code to enable BotSoccers to order online and use at the shopping cart in order to receive the discount.

• *Pauline Esposito, Corporate & Special Sales Manager, Craig Potton Publishing*
ph 03 989 5051 fax 03 548 9456. mail: pauline@cpp.co.nz
www.craigpottoncorporate.co.nz

19. **Safety in the Mountains.** Edited by Robin McNeill.

Completely revised 11th edition. Federated Mountain Clubs, Box 1604, WN. For information about the book, and ordering by downloading a mail-order form, see: www.fmc.org.nz/sales. Prices for FMC members: \$8.00 (incl. GST); 10 copies \$50.00 (incl. GST). Also available from some bookshops - RRP \$14.95 (incl. GST).

NOMINATIONS CALLED FOR

25 January. **Wellington Hawke's Bay Conservation Board.**

The Minister of Conservation is calling for nominations for nine vacancies. Appointments will take effect from 1/7/2013. Written nominations may be made by any person or organisation.

Information and nomination forms from

www.conservationboards.org.nz or from any DOC office, or from Katrina Edwards, kedwards@doc.govt.nz. Nominations are to be sent to the Minister of Conservation c/o the address on the nomination form.

SUBMISSIONS CALLED FOR

28 February. **Conservation (Natural Heritage Protection) Bill.**

See bill at www.legislation.govt.nz. Submissions can be made at www.parliament.nz or in writing to Local Government and Environment Select Committee, Parliament Buildings, WN 6160.

SUBMISSIONS MADE

Draft Town Belt Management Plan

Submissions closed on 10 December on the draft Wellington Town Belt Management Plan which describes Wellington City Council's (WCC) proposals to make decisions about the Town Belt over the next ten years. The plan presents objectives and policies by topic, (e.g. recreation, landscape, ecology); other parts have a geographic focus and will be very helpful for people with an interest in a specific place. There are nine geographic sectors, including Te Ahumairangi (formerly Tinakori Hill) and Mt Victoria. Each sector has a set of maps which are a rich source of information about the area of the original (1841) Town Belt, the existing vegetation, recreational facilities, and proposed management strategies. Forty pages of appendices provide the historical information which is essential reading for understanding how the Town Belt came to be the way it is, and the tensions and questions about how it should be managed in future.

In the ecology chapter, we were pleased to find commitments to supporting community groups in restoration and revegetation programmes, and to using eco-sourced plants in all restoration work with native plants. Recognition of the relationship between the Town Belt's ecology, and the resilience of the city, was a new angle to think about.

The real challenge, however, is how best to tackle the restoration of the Town Belt, given the current state of its

ecosystems. The draft plan reports that:

- probably 99.5% of the original forest cover has now been lost
- podocarp and most broadleaf species are absent from the Town Belt
- the plant communities are young and simple in structure, with a limited diversity of native species
- the reduced diversity of native species in the plant communities, and their fragmentation, has resulted in a reduced diversity of species of indigenous fauna
- pest plants and other weeds are a threat throughout the Town Belt and are a particular concern for small, isolated parts of it.

Restoration will be a long, slow process. We all know WCC can't do this alone. We need to think about the goals for the next 100–200 years, not just the next ten. We also know the pathway is not clear. There are many unknowns, including what may or may not be achievable. In our submission, we've encouraged WCC to open up communication networks for collecting and sharing information about the indigenous biodiversity on the Town Belt. WCC is in a good position to provide opportunities for ecologists, foresters, soil scientists, other experts, and the volunteers and staff who do the work on the ground, to engage with each other and with WCC.

Bev Abbott

Submissions Coordinator

Wellington Botanical Society Bulletin

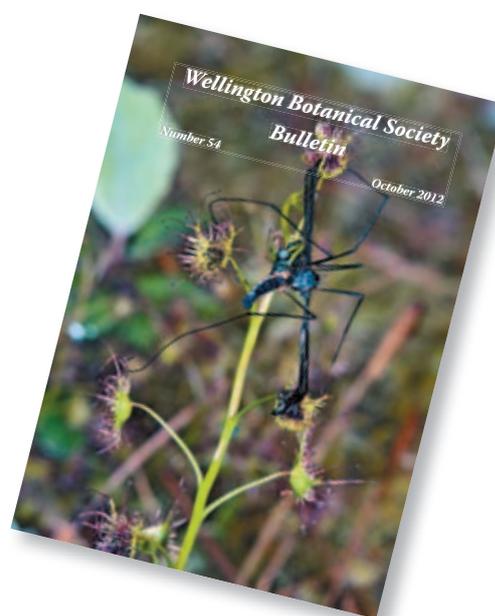
No. 54

The November 2012 edition of our bulletin was edited by Leon Perrie, proof-read by Jill Goodwin, and formatted by Jeremy Rolfe. It contains the following articles:

- Editorial. Leon Perrie.
- A selection of *Cyathea sori*. Jeremy Rolfe.
- The use of binomial Latin-based names in botany. Margaret A Harper.
- Uses of some common native species – a beginner's guide to ethnobotany. Eleanor Burton.
- The Mana Land and Sea BioBlitz from a diatomist's view-point. Margaret A Harper and John F Harper.
- Mana Island Bryophytes at the February 2011 BioBlitz. Rodney Lewington and Peter Beveridge.
- Beach morning glory (*Ipomoea pes-caprae* subsp. *brasiliensis*) in beach drift on Ripiro Beach, Omamari Stream mouth, Northland. Peter J de Lange.
- Restoring Makara Foreshore Reserve – an update. Barbara Mitcalfe and Chris Horne.
- Propagation of New Zealand native plants. Jill Broome.
- More nikau in Wellington City. Chris Horne and Barbara Mitcalfe.
- Nikau within Wellington City – new observations 2012. Jonathan Anderson.
- Vegetation in Owhiro Stream catchment, Wellington South Coast: condition and prospects. Paul Blaschke.

Copies of the bulletin are available for purchase by non-members – please see the "Publications" section of this newsletter.

The committee



Arnold and Ruth Dench Award

The 2012 award goes to:

- Jessie Prebble for research on *Myosotis*.
- Jonathan Frericks for research on orchid restoration techniques.

Each applicant requested about \$600, and because the award is for \$1000, Vaughn Bell and Alison Dench generously decided to increase the sum available to \$1200 so that both could be awarded funding.

Carol West and Eleanor Burton

Wellington Botanical Society Jubilee Award

The 2012 award goes to:

- Carlos Lehnebach for research on orchid restoration techniques.

Carlos requested less than the full sum available (\$2600), so the remainder of c. \$370 goes to:

- Wynn Udall for research on mycorrhizae required for effective restoration of forest in a pasture environment.

Carol West and Eleanor Burton

Letters to the editor

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

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

Books for sale

The following books, mostly donated by Stan Butcher, are for sale, with the proceeds going to the Jubilee Award Fund. If you are able to collect and pay for the book(s) of your choice at a BotSoc meeting, please do so. The following prices do NOT include packing and postage. We will invoice you for the cost of books we post to you. Please make your cheque payable to Wellington Botanical Society.

1. A Key to the Genera of New Zealand Ferns and Allied Plants. Booklet. \$4.00
2. An Introduction to Plant Biology. Weier, Stocking and Barbour. \$7.00
3. Australia's Wild Flowers. Michael Morcambe. \$8.00
4. BotSoc Bulletins 42–52. \$4.00 ea
5. BotSoc Songbook. Soft cover. \$5.00
6. Butterfly Gardening. The Xerxes Society, Smithsonian Institute. \$4.00
7. Conservation of Plant Species and Habitats – a symposium held at 15th Pacific Science Congress, Dunedin, February 1983. \$2.50
8. Establishing Shelter in Canterbury with Nature Conservation in mind.
9. Environment Canterbury. Small booklet. \$2.00
10. Government Approval of West Coast and Southland Beech Forest Utilisation Proposals. NZ Forest Service. Small booklet. \$2.00
11. Guide list to plants: Otari Open-air Native Plant Museum. Soft cover. \$2.00
12. Manual of the New Zealand Flora. Cheeseman. 2nd edition. No dust cover. Cover slightly worn. \$97.50
13. Mountain Flowers of NZ. N M Adams. Dust cover torn. \$25.00
14. National Surveillance Pest Plants. Wellington Regional Council. Small booklet. \$2.00

Newsletter by e-mail?

If you would like to receive your Newsletter by e-mail, and thus help us to reduce our postage costs, please advise our Treasurer:

Rodney Lewington, WBS, PO Box 10 412, WN.

15. Native Plants of the Eastbourne Hills. DOC. Booklet – soft cover. \$2.00
16. Native Plants in New Zealand exotic forests. Brochure. 2 copies. \$1.00 ea
17. Natives for your Garden. G. C. Jackson. Dust cover. \$10.00
18. Northern Rata in Wellington Conservancy. DOC 1989. \$1.00
19. Otari Nature Trail. Soft cover. \$2.00
20. Pest Plant Atlas, Wellington Conservancy excluding the Chatham Islands. DOC. Booklet. \$3.00
21. Pest plant atlas. Wellington Conservancy excluding the Chatham Islands. Vol 1. DOC. Booklet – soft cover. \$3.00
22. Places for Plants. Jacqueline Sparrow. Soft cover – cover taped. \$5.00
23. Plants of NZ. Laing & Blackwell. 1964, 7th edition. Dust wrapper. \$45.00
24. Plants of National Conservation Concern in Wellington Conservancy. DOC 1988. \$2.00
25. Protection and recovery of the Pygmy Button Daisy. Recovery Plan. DOC 2001-2011. Soft cover. \$2.00
26. Street Flowers. Richard Mabey. Dust wrapper. \$15.00
27. The Cultivation of New Zealand Plants. Leonard Cockayne. Small booklet – hard cover. \$35.00
28. The Garden. Journal of the Royal Horticultural Society. 1987. Soft cover. \$2.00
29. The Trees of New Zealand. L. Cockayne and E. Phillips Turner. Dust wrapper. \$40.00
30. Time and the Forest. Peter Hooper. Soft cover. \$8.00
31. Tree Culture in New Zealand. Matthews. No dust cover. \$35.00
32. Trees and Shrubs of New Zealand. Poole and Adams. Dust cover. \$35.00
33. What Tree is That. Stirling Macoboy. Hard cover, dust cover. \$10.00
34. Weeds of New Zealand. F W Hilgendorf. 1926. No dust cover. \$30.00
35. Wellington Regional Native Plant Guide. 1999. Booklet, soft cover. \$3.00

Papers

36. The Breeding Performance of Grey Duck. \$1.00
37. The Use of Frontal Spot and Crown Feathers in inter and intra specific display by the South Island Robin. \$1.00
38. Sea Birds found dead in New Zealand in 1974. Veitch. \$1.00

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

Wellington Botanical Society Photo Competition

The Wellington Botanical Society invites applications for a photograph competition for the best photographs taken by members during the 2012/13 season, to encourage and assist applicants to increase knowledge of New Zealand's indigenous flora.

The Competition: The competition is open to current members of the Society.

The competition has three categories comprising:

1. Plant portrait
2. Botanist/s in action
3. Close-up image.

Prizes include category winners, and overall winner. Each prize is \$50.

Applications for entry : Applications should be made on the prescribed application form below.

Each member can submit up to four photographs in total. Each photograph needs to be in the form:

- of a glossy print 30.5 x 20.3 cm (6 x 8 inch or A4) and ideally 300 pixels/inch and can be in landscape or portrait orientation, AND,
- in electronic form with a minimum resolution of 300 DPI.

It is a condition of entry that photographs may be placed on the Society's display board, or used in the newsletter, web site or other publication of the Wellington Botanical Society, with appropriate acknowledgement.

Selection : Entries will be judged during April/May 2013 with the winners announced at the members' evening meeting in May 2013.

Entries will be judged on technical and artistic merit by a panel of three judges. There will also be a members' choice prize for the photograph voted the best on the night of the awards.

The names of the prize winners, the value of the prize(s), and a synopsis of the photo(s) will be published in the Annual Report of Wellington Botanical Society.

Barbara Clark, Secretary

Entry form

One form to be completed for each photograph entered, and attached to the back.

Name:

Address:

E-mail:.....@..... **Phone:**.....

Checklist:

- I am a current financial member of the Wellington Botanical Society Inc.
- This entry form is attached to the back of an approximately 6 x 8 inch GLOSSY Print.
- Duplicate of the title is attached to the bottom. Fold along the dotted line so the title and category can be seen beneath the printed photo.
- An electronic copy of the image has been e-mailed to: bj_clark@xtra.co.nz , or an electronic copy is enclosed on disk.
- Self-addressed envelope (with stamp) is included if return of print is desired.

Title of Photo (also add in box below):.....

Caption (Short description suitable for the newsletter):
.....

Post to The Secretary, Wellington Botanical Society Inc., PO Box 10 412, Wellington 6143.

Or Hand to Barbara Clark at an evening meeting.

Closing Date: 11 April 2013

Title.....

Category (please tick one):

- Botanical portrait Botanist/s in action Close up

Otari-Wilton's Bush report

Summer is well and truly here, producing an immense flush of flowers and foliage compared with November: Chatham Island forget-me-nots, kākābeak, kōwhai, clematis and many more brought the gardens to life. Viewed from the Cockayne lookout, northern rātā is beginning to flower in the forest, and *Metrosideros perforata* is in bud along the Canopy Walkway.

Below the Cockayne lookout we have finished our small parterre-inspired garden. A parterre is a formal garden with planted beds, edged in stone or tightly clipped hedging, and gravel paths arranged to form a usually symmetrical pattern. Our parterre has a NZ flavour, with a design centred on the fish-hook shape of the hei matau. The hei matau has its origins in Māori legend, which holds that the North Island of NZ was once a huge fish that was caught by the great mariner, Maui, using only a woven line and a hook made from his grandmother's jawbone. We used *Coprosma rhamnoides* to outline the hook shape, and planted *Hebe topiaria* inside the shape, under-planted with the red-leaved groundcover, *Gonocarpus aggregatum*. To the left is a small bed of the creeping daisy *Anaphalioides trinervis*. Summer growth should make this look a lot tighter. There is definitely a place for native plants to be used in more formal settings. I hope this sparks people's interest.

We put in extra special efforts in November when we were visited by the NZ Gardens Trust to have our title of *Garden of National Significance* reassessed. I think they went away pleased. We were particularly weed-free on their visit, and chuckled when one assessor said 'Oh! I think I've spotted your only weed', only to be told that she was looking at *Sonchus kirkii*—a rare species around the Wellington coast!

In September we ran a very successful Open Day, and a photography competition. We sold just over 1000 plants in three hours, and announced the three competition winners. We received 166 photo entries and plan to run another competition next year.

Rewi Elliot
Curator/Manager

Otari Native Botanic Garden and Wilton's Bush Reserve

Tree of the Month – hīnau – *Elaeocarpus dentatus*

Hīnau was known to be so widespread in Aro Valley that it gave its name to the Pukehīnau Flats*: pukehīnau is Māori for 'hill of hīnau'. Unfortunately there are very few hīnau in the valley today. But there is a fine specimen at the path leading to 37 Devon Street: it has had a fraught existence. Instead of one trunk, it now has six living trunks and two dead ones. There are some dead branches in the canopy too, from times when it was short of nourishment. It is growing on a steep bank and is about 8 m tall. In native forest, hīnau can grow up to 20 m, and form part of the canopy of lowland forests throughout Aotearoa/NZ.

Hīnau comes into bloom at the end of October. It has panicles of white flowers with the petals incised at the tips, hence the name *Elaeocarpus dentatus*: 'dentatus' is Latin for toothed. In some seasons, hīnau produce a lot of nectar for bees from which they make a honey, light in colour and flavour. In autumn, 18 mm, oval, purplish berries

form, food for our native birds, in particular kererū / wood pigeons, an important distributor of the seeds. Not only does hīnau take up to twenty years to flower, but the seed can take 3–5 years to germinate. A spindly hīnau seedling can be confused with those of rewarewa, as it has similar leaves 10–15 cm long with wavy margins.

The fruit has a nutritious kernel like an olive, from which Māori once prepared a floury meal, to be baked and eaten as a bread. Other traditional uses of this tree include the bark from which a black dye was obtained.

Kererū / wood pigeons visit valley occasionally, coming over from Zealandia. Will they feed on this tree next autumn?



Hīnau at 37 Devon St.

Who knows what age this hīnau could be? Is it a chance survivor of the original bush cover of Aro Valley, or from a seedling arising long after the bush was cleared? Its precarious position on such a steep site suggests it isn't a planted tree. When hīnau is grown in good soil it makes a beautiful tree, and should be more widely used in street plantings.

BotSoccer Frances Forsyth reports that there is an old hīnau, in Waimapihi Reserve, at the end of Holloway Road, Aro Valley. If readers know of other trees that could have survived the clearing of the original bush cover of Aro Valley, we would be keen to hear about them. We would be able to raise our own local plants from the seeds for the Aro Valley restoration project that has been going for some years now. Please email: jbwstace@clear.net.nz

Julia Stace

* Pukehīnau is the original name for the ridge upon which the suburb of Kelburn was built. (Editor).

Biophilic cities

Wellington City Council has established a 'biophilic city' policy team, led by Amber Bill, on secondment until 30 June. The work programme involves the place of nature in the urban area. See: <http://biophiliccities.org/>

Wellington City Council, 101 Wakefield Street, PO Box 2199, WN.
p. 803 8150 / 021 2278150

Cathy Jones receives Allan Mere Award

To commemorate the bestowing of NZ botany's highest award, the Allan Mere, to Cathy, president of Nelson Botanical Society, a gathering was organised, preceded by a potluck dinner. Thirty-six people, including some renowned guests in the botanical and conservation field, were present. Notable among them were Anthony Wright, Director of Canterbury Museum, and president of the NZ Botanical Society, and Drs Carol West and Jessica Beever of Wellington and Auckland Botanical Societies respectively.

Dr Carol West said the award is given to botanists who make an all-round contribution across the broad field of botany. Cathy has been the president of Nelson Botanical Society for twelve years, has led many field trips and camps, and mentored many botanical enthusiasts. Cathy's artistic talents did not go unnoticed either, as many of her botanical line-drawings have graced the covers of NZ Botanical Society newsletters. Her knowledge of plants, attention to detail, and advocacy for conservation also led to her winning the award.

Source: *Nelson Botanical Society newsletter*, October 2012

Loder Cup awarded to Dunedin ecologist

A professional plant ecologist for thirty years with the former DSIR, and then Landcare Research, Dr Ralph Allen has been pivotal in protecting thousands of hectares of native forest, shrublands, and coastal vegetation throughout Otago, Southland, and the Kāpiti Coast.

"Dr Allen's efforts have inspired others to cherish the native plants and ecosystems around them," said Ms Wilkinson, Minister of Conservation.

"He has been instrumental in the establishment of several groups that promote the protection of indigenous vegetation, including Ecology Action Otago, and the Otago Branch of Beech Forests Action Committee.

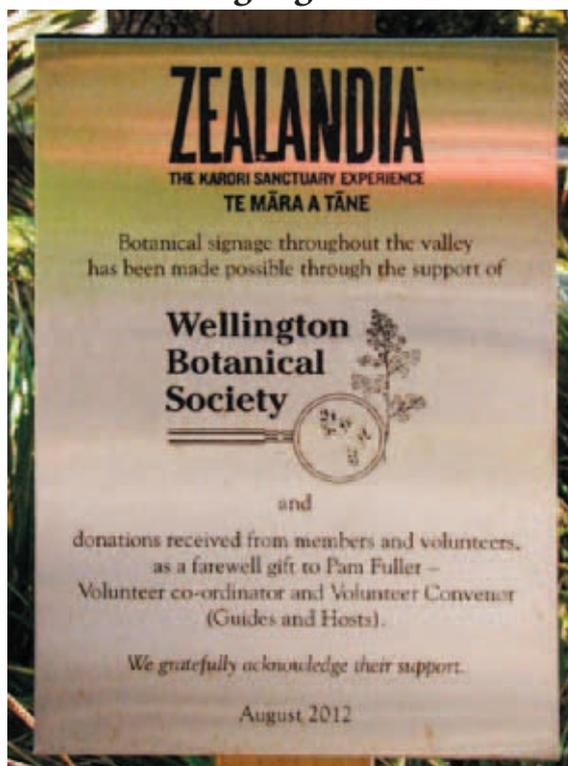
"Dr Allen was the driving force behind the efforts of the Otago Natural History Trust to establish Orokonui Ecosanctuary, a fenced area of 307 ha near Dunedin, now a secure habitat for native plants and animals.

"Dr Allen was nominated by Otago Conservation Board. Board chairperson, Abby Smith said Dr Allen's many contributions to the protection, cultivation and enjoyment of NZ's indigenous flora deserved recognition.

Dr Allen has published three books and over fifty scientific papers.

The Loder Cup was first awarded in 1926 to encourage and honour New Zealanders who work to investigate, promote, retain and cherish our indigenous flora.

Botanical signage at Zealandia



We welcome the installation of a plaque on the lawn overlooking the lower Karori Reservoir, acknowledging the use of botanical information, supplied by BotSoc, on botanical interpretation displays in Karori Sanctuary.

Chris Moore

Climbing plants

Check the following web site to learn how climbing plants climb: www.guardian.co.uk/science/2012/aug/30/secrets-climbing-plants-tendrils

Anthony Hill

DOC Wellington Visitor Centre

Te Pae Manuhiri, Te Rohe
ō Te Whanganui ā Tara

Conservation House,
18-32 Manners St

- Track, hut, conservation information
- Kapiti Island visitor permits
- Hut tickets, backcountry hut passes
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Open: Mon-Fri 9 a.m. - 5.00 p.m.
Sat 10 a.m. - 3.30 p.m.

Tel: 04 384 7770 Fax: 04 384 7773

E-mail: wellingtonvc@doc.govt.nz

Web: www.doc.govt.nz

New Zealand Government

Department of
Conservation
Te Papa Atawhai

Proposed quarry in Cobb Valley

If you would like information about a proposed steatite quarry in the Cobb Valley, Kahurangi National Park, check the following link: www.change.org/en-AU/petitions/save-the-cobb-stop-the-proposed-steatite-quarry-in-the-cobb-valley-golden-bay-nz

Editor

Restoration and landscaping at Oruaiti Pā site, Point Dorset, Seatoun

This historic, steep-sided peninsula lying between Seatoun and Breaker Bay, overlooks the entrance to Wellington Harbour. We congratulate Wellington City Council's (WCC's) Parks and Gardens Department, the Port Nicholson Block Settlement Trust, assisted by a grant from the Plimmer Bequest, for the successful completion of the joint landscaping and planting project on this site, following extensive consultation with the wider community, via a draft Management Plan.

In early times, Oruaiti Pā site's strategic features were valued by Māori for defensive and observation purposes. These are the very same features that the NZ Army later made use of in World War II. It is therefore ironic, but no surprise, that ancient, pre-European-settlement defensive terraces remain alongside derelict, concrete gun-emplacements structures from the 1940s.

The entire Oruaiti Reserve / Point Dorset site was extremely weedy when earlier this year Council invited us as volunteers, to make a site visit, identify, and advise on, ways to protect, the remaining indigenous vegetation there, during Council's planned upgrade of the Te Ara o Kupe track system. Dense pasture grasses and weeds often over a metre tall, comprised the dominant cover which, as well as inhibiting the germination of seeds of indigenous species, made the whole site hazardous, especially on steep, exposed slopes, and places where huge blocks of WWII masonry were lying invisible. We listed the native plant communities, which include: *Melicytus crassifolius**, thick-leaved māhoe; *Coprosma propinqua* var. *propinqua*; *C. repens*, taupata; *Ficinia nodosa*, wī; *Tetragonia implexicoma*, kōkihi; *Hebe stricta* var. *atkinsonii*, koromiko; *Muehlenbeckia complexa*, pōhuehue, *Microsorium pustulatum*, kōwaowao; *Asplenium oblongifolium*, huruhuruwhenua, and *Poa cita*, wī, silver tussock. These taxa comprise an appropriate, recognisable community of indigenous Wellington coastal plants.

*Thick-leaved māhoe is one of the c. 200 plant species of Department of Conservation (DOC) concern in Wellington Conservancy, 33% of which are coastal. Its Conservation Status is listed as "Declining". (Source: *NZ Indigenous Vascular Plant Checklist*. 2010, NZ Plant Conservation Network). There are healthy cushions of it scattered throughout the Oruaiti site, often almost invisible under rank weed growth.

On 21 November, we attended the dawn ceremony to mark the restoration of the site of the former Oruaiti Pā. As we manuhiri climbed to the pā site, the carved pou stood sentinel, silhouetted against the dawn sky. The assembled tangata whenua were awaiting our arrival, and ceremonial karanga, karakia, whaikorero and waiata followed, in an impressive ceremony

At ground level on the pā site, a low, symbolic, concrete

waka shape is 'moored' at the foot of the pou. A paving of bold geometric patterns resembling tūnako forms the 'deck'. Surrounding the waka are dense, massed plantings of *Phormium cookianum*, *Cordyline australis*, and *Poa cita*, an excellent use of locally appropriate species.

After the ceremony, in broad daylight, we were impressed to see how closely the site had been mown, exposing the World War II concrete ruins, and more flights of well-graded timber steps replacing what had been dangerously steep slopes. Extensive areas had been sprayed and/or cleared of invasive weeds e.g. Cape ivy, karo, boneseed, tree lupin, gorse and fennel, and set aside for later plantings of appropriate, eco-sourced native species. We were also impressed by the care taken by WCC, when upgrading the tracks, to avoid damaging the numerous, sprawling, lianoid native plants such as *Muehlenbeckia complexa* / pōhuehue, and native spinach / kōkihi.

Visitors to Oruaiti will appreciate the low, sturdy, timber interpretation panels with educative, routed texts, e.g. "*Oruaiti is a protected coastal ecosystem. Important native plant species are being preserved, and revegetation is underway with eco-sourced plants.*"

Knowing how easily and rapidly coastal sites become grossly overgrown by adventives, we believe it is essential that Council ensures there will be funding in future Annual Plans to maintain this site as it needs to be. This must include funds to continue the control of pest animals, including rabbits and stoats.

Barbara Mitcalfe and Chris Horne

Help save Fiordland

Federated Mountain Clubs of NZ Inc has donated \$15,000 to the Save Fiordland campaign which is proposing to take legal action should the Minister of Conservation grant concessions for either:

- the Milford – Dart Tunnel proposal, OR
- the Snowdon – Mavora monorail, proposed by Fiordland Experience.

Donations can be made to www.savefiordland.org.nz

Azolla filiculoides

I'd be grateful for more specimens of *Azolla* from the central and southern North Island: <http://blog.tepapa.govt.nz/2012/11/29/help-with-floating-fern/>

Please forward this message to anyone who might be interested.

Thank you.

Leon Perrie

Curator of Botany, Te Papa Tongarewa, PO Box 467, Wellington.
04 381 7000, leon.perrie@tepapa.govt.nz

New Waikato Botanical Society web site

Visit the new Waikato Botanical Society web site at: <http://waikatobotsoc.org.nz/>

You are invited to make suggestions for the web site, and submit images. If you wish to do so, contact Mike Clearwater at: webmaster@waikatobotsoc.org.nz

Catherine Beard
for Waikato Botanical Society

TRIP REPORTS

6 October 2012: Caribbean Drive Reserve

We parked at the top of Caribbean Drive, Grenada North, Wellington. Despite a forecast gale with showers, the day turned out to be sunny throughout the trip. The wind was not severe at ground level, with the gullies quite sheltered, but it provided a constant eerie howling as it whistled through the overhead high-voltage transmission lines. It was good to see a couple of new trippers making up a group of nine for the day.

Proceeding up the closed-off extension of Caribbean Drive (water reservoir access road), and passing the paint-ball war-games concession, we climbed through remnant pastureland which is becoming succeeded by māhoe shrublands, before entering more established regenerating bush. The route followed a bulldozed Transpower access road for 2/3 of the climb, with the remaining 1/3 being a track cut through mānuka forest, with the occasional WCC track markers along the route (some of which an earlier recce had uncovered from tall gorse). The upper track section has been kept

clear of gorse through its usage as a Greater Wellington Regional Council (GWRC) bait-station maintenance access track. Unfortunately the once-shady damp banks of the bulldozed track section have been recently cleared of vegetation to allow 4WD-vehicle access, and have become exposed to the sun and dried out. Just after lunch we were heard a group of trailbikers on the Transpower access track below us.

We did a good deal of weeding, using a grubber, and continuing the efforts of the earlier recce, attempted to make Himalaya honeysuckle locally extinct. We also removed a lone young pampas, and made inroads into a patch of blackberry amongst the upper mānuka forest section.

Caribbean Drive Reserve comprises some 79 ha transferred from Transpower to WCC in 2002, plus some additional adjoining areas known as Belmont Reserve, and two sections of Hillcroft Road Reserves, totalling some 106 ha of rugged terrain, with deep gullies between the spurs, rising to the Horokiwi Road ridgeline. The entire area was upgraded to Scenic Reserve status in the 2011 Reserves Reclassification as part of the WCC Northern Reserves Management Plan. This block is regarded as a special place by WCC, because there are few large areas of mānuka forest within its estate. It also forms part of a wide ecological corridor across the Wellington isthmus, between Wellington Harbour (and Belmont Regional Park), crossing south of the Tawa urban

area to the Outer Green Belt, and on to Porirua Scenic Reserve and the west coast.

Since WCC took ownership, some isolated pines in the block have been felled, and more recently GWRC began poisoning possums. Goats used to be common on the block, and although we saw some recent signs of their presence, we did not see any. Perhaps as a result of browse by possums and goats, the understorey was sparse, except in the damp, shady gullies where we saw several species of ferns, including *Hymenophyllum flexuosum* and *Loxogramme dictyopteris*. Mamaku, *Cyathea medullaris*, was particularly prominent on the damper slopes.

Off-track we made two excursions into the bush. One followed a tributary of Takapu Stream to get a closer view of two substantial nīkau, with numerous seedlings in the vicinity. This excursion ended at a 4-m waterfall lined with the water-borne roots of neighbouring māhoe trees. In an excursion into a second gully on our way down the track, to clarify the identity of some tree ferns, we also found some massive old māhoe, *Melicytus ramiflorus*, and unusually large wineberry, *Aristotelia serrata*.

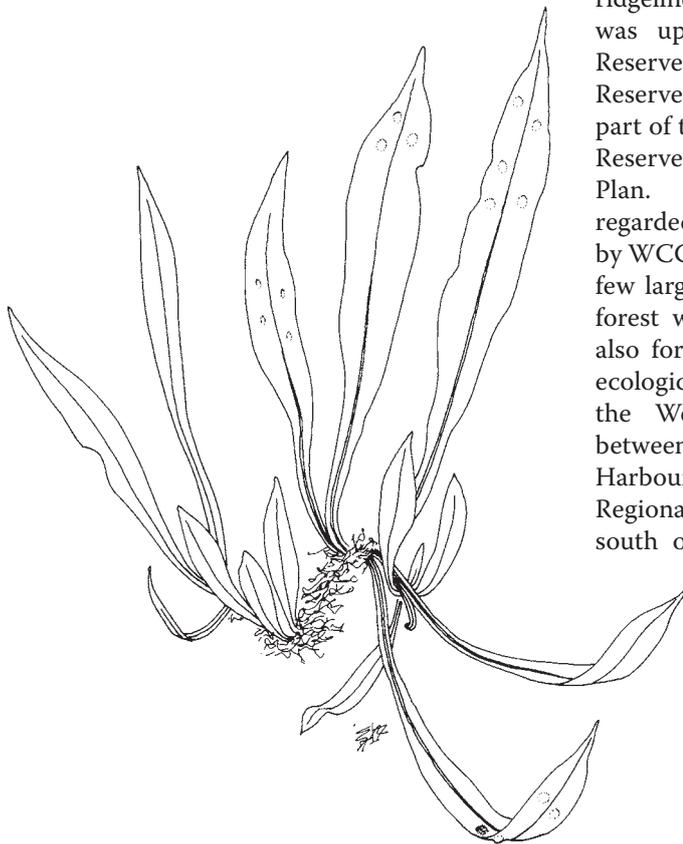
We also saw nīkau in a neighbouring gully, along with some other substantial trees, including emergent rewarewa in distant ravines and what we thought were tawa trees, but unfortunately we were not close enough to confirm the sighting.

Another botanical highlight was the prevalence of clematis in flower. *Clematis forsteri* and *C. paniculata* were quite widespread and particularly evident where their flowering mass shone from the mānuka canopy.

We have compiled a plant list for this area, and will send it to WCC and the NZ Plant Conservation Network.

Participants: Bev Abbott, David Allen, Barbara Clark, Richard and Margaret Herbert, Chris Horne, Barbara Mitcalfe, Nick Saville, Irene Walshe.

Richard Herbert



Loxogramme dictyopteris. Illustration: Eleanor Burton.

3 November 2012: Practical introduction to the electronic keys to the flora in NZ

A wet day was ideal weather for an indoor “field trip” at the Otari Information Centre.

David Glenny, Landcare Research NZ, Lincoln, brought copies of interactive keys to NZ’s flowering plant genera, and *Coprosma*. The workshop was to learn how these keys worked, and give members practice with them. After copying the keys to our own laptop computers, David took us through the operation of the keys, the in-built functions, and how to get to the copious illustrations. The room hummed for the next two hours as twenty BotSocers practised, with David giving advice as he moved

around the room.

Then he gave an introduction to the *Coprosma* key, explaining the characters that were important in identifying *Coprosma* species, followed by a short practice.

As David explained, the other aim of the workshop was to find out what went right and what went wrong for newcomers to the keys. By the end of the morning, David had a page of suggestions for additional characters to add to the interactive keys, and suggestions for clarifying characters.

A win-win for all who attended: Bev Abbott, Eleanor Burton, Sandra Clark, Ian Goodwin, Bryan Halliday,

Anthony Hill, Chris Horne, Jane Humble, Rodney Lewington (scribe), Vivienne McGlynn, Barbara Mitcalfe, Chris Moore, Mick Parsons, Leon Perrie, Grant Roberts, Lea Robertson, Darea Sherratt, Sunita Singh, Julia Stace, Carol West.

Our thanks to Rewi Elliot, curator/manager of Otari-Wilton’s Bush, for the use of the Information Centre, and for just a few specimens from Otari’s northern North Island “38 degree” collection.

For those who did not attend, you can access the keys for free at: <http://www.landcareresearch.co.nz/resources/identification/plants>

Te Marua Bush workbee: 17 November 2012

Since our May workbee, tall grasses and other weeds have grown vigorously, especially in the southern extension where we had added new plants. We cleared around these, using cut grass and other weeds as mulch to suppress further weed growth and loss of moisture. Most of the new plants are doing well, though some black maire had yellowish foliage. We shall add slow-release fertiliser to these to improve their chances, as the soil there is sparse and stony. Older trees in this area, and in the northern strip beside the Pony Club paddock,

have put on good growth, providing better shelter for the younger plants, but the problem with convolvulus smothering some plants continues.

The team worked through the oldest planted areas, and the original Bush, to find and remove patches of weeds, including many cherry and sycamore seedlings. There is a very good number and mixture of native seedlings growing under the larger trees now. Since the snow-damage of 2011, some large canopy gaps are providing more light in the Bush and seedlings are growing well as a result.

Many thanks to the team of BotSoc and Forest and Bird members who cheerfully give their time twice a year to allow this expanding remnant to remain healthy and to prevent takeover by a mixture of opportunistic weed species.

Participants: Bev Abbott, Trudi Bruhlmann, Steve Edwards (GWRC Ranger), Anthony Hill, Chris Horne, Rodney Lewington, Sue Millar (co-leader / scribe), Barbara Mitcalfe, Grant Roberts, Nick Saville, Allan, Glennis (co-leader) and Graeme Sheppard.

23–28 November: John Child Bryophyte and Lichen Workshop 2012, Stewart Island

Thirty-one people flew and ferried to this year’s workshop, based in Oban, Stewart Island. Participants came from all over NZ, with some from Australia. There were also people from the USA, Sweden and Germany who are studying in NZ. Several locals joined the group for some of the collecting trips.

Over the four days we visited a variety of habitats within easy reach of Oban.

Day 1: we were bussed to Lee Bay to explore the Rakiura Track to Māori Beach, and the Garden Mound Track.

Day 2: we explored Fern Gully and, whilst some returned by road to Oban, others walked back via Ryan’s Creek Track and the coast to Oban.

Day 3: we boarded *Aurora* to collect on Ulva Island. Later we re-boarded *Aurora* to continue up

Paterson Inlet. We climbed Pryze’s Peak Track through the temperate zone to 365m, and low scrub dominated by mānuka and pink pine.

Day 4: we explored the roadsides and shorter tracks around Oban.

We used the RSA Hall as a lab, a place to eat, and as a lecture hall. Each evening we examined the day’s collections and listened to talks. The latter covered the geology and vegetation of Stewart Island, and the local identities who had contributed to the knowledge of the island’s flora and fauna over more than a century. Several attendees made interesting presentations on aspects of the work they are involved in.

For the beginners, there was an hour’s formal introduction to bryophytes and lichens on the first evening. For the remainder of the

workshop interaction continued between beginners and those with some knowledge.

What did we find? We won’t know for a few months. For liverworts and hornworts, we added at least eight taxa to the substantial list compiled from herbarium records before the workshop. For mosses, the collections made in the middle of last century by William Martin were taken as a guide. No doubt species will be added as the collections made during the foray are worked through.

We thank John Steel and his helpers (Aimee and Kelly) for the organisation and catering, and for bringing microscopes and other equipment from Dunedin.

The 2013 workshop is planned for Ohakune in the central North Island.

Rodney Lewington and Peter Beveridge

1 December 2012: “Te Rama”, Waikanae

We assembled in a Waikanae carpark, then drove back south in convoy, to make a safe entrance off SH 1 to this historic property, which includes a 6-ha. QEII National Trust Open Space Covenant. In earlier Māori times, this commanding site, overlooking the Waikanae River, was strategically important, and even today there are clear remains of ancient storage pits, and tiers of defensive terraces, on a steep-sided spur north of owners Geoff and Louise Fishers' house.

In a paddock near well-maintained historic farm buildings, and a huge Californian redwood, probably well over a hundred years old, Geoff gave us an informative briefing, and OSH advice, accompanied by several tūi warbling aloft in a large pūriri.

Soon we were off, admiring wet-site forest, where abundant nīkau, pukatea, kahikatea, kiekie and kohekohe shared the canopy at c. 15–20m. Plank buttresses on some pukatea were over 1 m high and 3 m long. Overhead were occasional large epiphyte nests, e.g. *Collospermum hastatum*. A flourishing fern flora and prolific seedlings appeared recently after pest control by Greater Wellington Regional Council (GWRC).

Seeing how numerous the karaka seedlings were, some members commented that karaka may become a management problem here, as has happened in many other sites, such as Zealandia. It was noticeable that several forest tiers were missing or sparse, e.g. sub-canopy and

ground-cover, evidence of browsing by stock and rabbits until recent times. Questions were asked about the strange growth on a young *Streblus banksii*. This malformation results from predation by a tiny mite, *Eriophyes paratrophis*, which punctures the plant's cell walls, sometimes injecting hormones or enzymes which can cause the cells to proliferate like a fringe of tiny beads. (See Rob Lucas's *Managing Pests and Diseases*, page 191). By late morning we had reached an area formerly ravaged by rabbits and almost bare of seedlings but now recovering since the arrival of RCD.

After lunch we entered an area where species diversity increased markedly because stock had been excluded from it long ago. We made numerous additions here including *Adiantum diaphanum*, *Hymenophyllum flexuosum*, and *Arthropteris tenella*. We then botanised beside the farm road which took us north, then back south towards the house. As often happens, roadside banks provided us with more additions to the list, mostly adventives, but also including *Pterostylis banksii*, *Microtis unifolia*, *Thelymitra* sp., and *Stellaria parviflora*. Later some of us botanised the spur by the house, noting an extensive planting of *Libertia cranwelliae*, an East Coast endemic. Along the crest of the spur is some of the best old podocarp/broadleaf forest on the property, with big matai and miro, and one of the biggest *Olearia paniculata* any of us

had ever seen: triple-trunked, with a d.b.h. of c. 60 cm.



Pterostylis banksii. Photo: Sunita Singh.

Weeds in the covenant, such as Japanese honeysuckle, climbing asparagus, pampas, banana passionfruit, wandering willie, barberry and *Adiantum raddianum* need prompt attention.

We did not have time to botanise the block to the south which appeared to be covered with closed-canopy mānuka and kānuka. The block is down-wind of the covenant, so with the prevailing nor'westerly, and the abundant birdlife on the property, we expect that these natural distribution processes will continue to provide a sustainable source of seeds, and thus seedlings, so that the block will evolve through natural successional stages, to a more diverse ecosystem.

Six of us were privileged to enjoy staying overnight at the beautifully fitted-out historic cottage while the rest returned to Wellington. Next day was so wet that our planned visit to Nikau Scenic Reserve was cancelled.

We thank Geoff and Louise for the privilege of visiting their fine covenant, and for their hospitality, and Mike Ulrich, GWRC, for alerting us to the existence of this significant forest, and for providing a list of weeds in it.

Participants: Barbara Clark, Rae Collins, Gavin Dench, Bryan & Robin Halliday, Anthony Hill, Chris Hopkins, Priscilla Isaacs, Brenda Johnston, Leon Perrie, Graham Petterson, Nick Saville, Sunita Singh, Barbara Mitcalfe & Chris Horne (co-leaders / scribes).



Plank buttresses on a pukatea. Photo: Sunita Singh.



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