

Wellington Botanical Society

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



NEWSLETTER

May 2011

Previous issue: December 2010

ISSN 1171-9982

From the President

Some changes don't always come easily, especially when it comes to familiar routines—we become comfortable with the way things are. So it is with our meeting accommodation in the Murphy MYLT101 Lecture Theatre at Victoria University.

The Wellington Botanical Society has had a 70-year association with the university – for 50 of those years we have been able to use their facilities for our meetings. However, we may not be able to continue with this arrangement as the university wishes to charge us more for our accommodation than we are comfortable with. The cost is an issue because we wish, as matter of priority, to continue providing grants to the university's School of Biological Sciences botany students.

The society has written to the university asking them to re-consider their charges; at the time of writing we are awaiting a response. In the meantime we are checking alternative accommodation options.

Chris Moore

BotSoc bulletins on line

Since February the NZ Plant Conservation Network have been working to add the remaining (most recent) PDFs of the Wellington BotSoc Bulletin and Auckland BotSoc Journal to the on-line resource (<http://bts.nzpcn.org.nz/>). The Wellington Bulletins are now on-line, and uploading of the Auckland Journals should be completed soon.

John Sawyer, Secretary, NZPCN
www.nzpcn.org.nz

Articles for website

We welcome articles for consideration for inclusion on our website:

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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| | joint / group / family \$35. | | |

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. See "From the President", above.

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, and at Easter.

DEADLINE FOR COPY FOR NEXT ISSUE – 20 September 2011

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 6036, 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: JUNE–SEPTEMBER 2011

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.

Saturday 11 June: Field trip

Upper Solomon Spur

NOTE: Not Saturday 4 June.

Botanise this spur in the Wainuiomata Catchment. Check the plant list prepared by our previous trip which reached c. 380 m, then expand the list as we climb to c. 630 m at the Old Whakanui Track. See regenerating shrublands, mature forest, and pest control work. Maps: street, and NZTopo50-BQ32 Lower Hutt. Meet 9 a.m. at main gate, Reservoir Rd, off Whitcher Grove, off Moores Valley Rd, Holmdale, Wainuiomata. Booking essential by 9 June, so we can report to Greater Wellington Regional Council. Leader: Mick Parsons 972 1148; deputy-leader: Chris Horne 475 7025.

Monday 20 June: Evening meeting

Propagation of NZ native plants

Speaker: Jill Broome, Plant Collections Supervisor, Percy Scenic Reserve, Lower Hutt, will describe propagation techniques she uses when growing indigenous plants, and discuss successes and failures owing to timing and methods, and old-fashioned methods versus modern equipment.

Saturday 2 July: Field trip

Johnston Hill Reserve, Karori

Help to draft a plant list for vigorous regenerating forest on this prominent part of the Outer Green Belt. Meet 9.15 a.m. at corner of Karori Rd & Standen St. Maps: street, and NZTopo50-BQ31 Wellington. Catch no. 3 Karori Park bus: Lyall Bay 8.40, Courtenay Place 8.55, Lambton Quay Stop F 9.02. Finish at a café. Co-leaders: Barbara Mitcalfe 475 7149; Chris Horne 475 7025. In case of inclement weather the trip may be postponed to Sunday 3 July. Please check with trip leaders.

Saturday 16 July: 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 Kaitoke Regional Park (KRP). Our biannual 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. trowel, hand fork, grubber, loppers, pruning saw, jemmy. Maps: street, and NZTopo-BP32 Paraparaumu. 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, KRP. Coming by train? Ring the leader to arrange to be met at Upper Hutt Station. Catch 8.05 a.m. train on Hutt Line from Wellington Station. Co-leaders: Glennis Sheppard 526 7450, Sue Millar 526 7440.

Monday 18 July: Evening meeting

Lichens illustrated

Speaker: Dr Allison Knight, Lichenologist, Research Associate, Dept. of Botany, University of Otago. Lichens are a significant feature of our biodiversity, with over 1700 taxa described in the Flora of NZ Lichens. Allison will illustrate the main groupings of some of the common and widespread lichens featuring in an introductory Field Guide. A selection from the Boyd Creek summer trip will be included, plus some rare and threatened species to look out for.

Saturday 6 August: Field trip

Paekakariki Escarpment forest

The trip involves a 200-m climb on the new track built by Nga Uruora, botanising the remnant kohekohe forest, and inspecting plantings. Good boots are recommended because the ground is steep. Maps: street, and NZTopo50-BP32 Paraparaumu. Meet at Paekakariki Café, Beach Rd, Paekakariki at 9.05 a.m. Catch 8.14 a.m. train on Kapiti Line from Wellington to Paekakariki Station. Travel to the escarpment in cars. (NB. There is no direct walking access or access by car from Pukerua Bay). Finish at a café. Leader: Ken Fraser 04 905 3714; Wellington contact: Chris Horne 475 7025.

In case of inclement weather the trip may be postponed to Sunday 7 August. Please check with trip leader.

Monday 15 August: Evening meeting

1. Annual General Meeting

2. AP Druce Memorial Lecture: Learning from Tony at Taita and beyond.

Speaker: Dr. Carol West will describe working with Tony Druce at Taita from 1984-1987, including recollections from numerous BotSoc field trips with him.

Saturday 3 September: Field trip

Help with the compilation of a plant list for this impressive, mature, podocarp-northern rātā/broadleaf forest. Maps: street, and NZTopo50-BQ32 Lower Hutt. Expect wet feet. Meet 9 a.m. at main gate, Reservoir Rd, off Whitcher Grove, off Moores Valley Rd, Holmdale, Wainuiomata. Booking essential by 1 September, so we can report to Greater Wellington Regional Council.

Leader: Chris Hopkins 564 3980; deputy-leader Chris Horne 475 7025.

Monday 19 September: Evening meeting

Speaker: Barry Wards, President, Forest & Bird Protection Society. To sustain biodiversity over generations, we must think beyond places to processes. We must reach beyond the remnant indigenous patches that make up landscapes, to the whole, landscape-sized life-support systems of which they are part. Ecological processes that maintain and link these fragments, such as dispersal, recolonisation and species succession, are inhibited or non-existent. It is therefore vital to identify and make connections and corridors for movement and dispersal, in order to preserve the integrity of entire ecosystems. These connections are as much about people and communities, as they are about the plants and animals that live amongst us. Through the protection and restoration of Wellington's fragile natural places, and the establishment of a network of ecological corridors, the Wellington region's biological and human communities will be connected and flourish.

Friday 20 January – Sunday 29 January 2012: Field trip

Accommodation near Inglewood. Details and booking form in next newsletter.

Map: Parkmap 273-09 Egmont (\$19), and documents from DOC Visitor Centre, Manners St: *Taranaki – A walker's guide* (free), *Walks in North Taranaki* (\$2.50); *Short walks in Egmont National Park* (\$2.50); *Pouakai Circuit, Egmont National Park* (50c).

Skull Gully, Wainuiomata Catchment

Physical and social dimensions of ecological corridors - A Wellington perspective

Taranaki

AWARDS

- 15 November. **Wellington Botanical Society Jubilee Award.** See article in this newsletter.

EVENTS

- *1–3 July. ECO Annual Conference and AGM.* Auckland. Friday: Jubilee Hall, Parnell Community Building; Saturday – Sunday: Carey Park Camp, Henderson Valley Rd, at the edge of the Waitakere Ranges. Topics: current directions in protecting what we value and prosper from, e.g. our environment, with its clean water, healthy soils, biodiversity and special landscapes, our participative democracy and access to information, and our opportunities to build a sustainable and equitable economy. *Debby Rosin, Executive Officer, Environment and Conservation Organisations of NZ (ECO), Level 2, 126 Vivian St, Box 11 057, WN 6142. www.eco.org.nz, ph/fax: 04 385 7545, e-mail: eco@eco.org.nz, Skype: eco.office*
 - *24–27 August. NIWA Wellington Science and Technology Fair.* Laby Building, Victoria University. BotSoc has offered a Special Prize for the winning entry on an indigenous plant topic. Rodney Lewington will organise judges for the category. Sylvia Nichol, NIWA Wellington Science and Technology Fair, Special Prizes Coordinator, PBag 14 901, Kilbirnie, WN. Ph 04 386 0396, s.nichol@niwa.co.nz
 - *28 August – 1 September. NZ Ecological Society conference.* Rotorua. Chris.bycroft@wildlands.co.nz
 - *11–18 September. Conservation Week, Show how much you love New Zealand - our native wildlife, our incredible natural areas, and the places that are part of our history - by taking part in conservation events and activities, watching conservation programmes on TVNZ 6 and sharing your photos and comments online.* Conservation Week is a partnership between DOC and TVNZ 6. www.doc.govt.nz/templates/page.aspx?id=38663
 - *18 – 20 November. Wellington Home & Garden Show.* Westpac Stadium, Wellington. Kirsty Randell, Jade Promotions, Box 8516, Havelock North. Ph 06 877 6475 ext 701. www.homeandgardenshow.co.nz
 - *1 – 6 December. 26th John Child Bryophyte and Lichen Workshop.* Matawai; 70 km north of Gisborne on SH 2. For anyone interested in bryophytes and/or lichens, from novice amateurs to professional botanists. Aim: to gain and share knowledge of, and encourage an interest in, NZ's mosses,
- *First Saturday each month. Otari-Wilton's Bush plant-care workbees.* Meet at information centre, 160 Wilton Rd, Wilton at 9 a.m. Wilbur Dovey 499 1044. (NOT January).
 - *1st & 2nd Sunday each month. Manawa Karioi Society revegetation programme workbees.* Tapu Te Ranga Marae, 44 Rhine St, Island Bay. 10 a.m. – 2 p.m. Bring lunch. Peter Russell 021 207 6011; Ross Gardiner 021 0276 4154.
 - *25 May. "Mountain tops to Ocean Depths: involvement with a range of ecological/environmental issues, mainly in the south?"* Sir Alan Mark (Emeritus Professor, University of Otago). 6 p.m., Rutherford House Theatre 2 (north end of Lambton Quay, near Railway Station). Sir Alan is the 2011 winner of the Royal Society of NZ's 2011 Charles Fleming medal and lectureship for environmental achievement. Full details: www.royalsociety.org.nz/programmes/awards/fleming/charles-fleming-lecture-tour/
 - *11 – 12 June. Forever wild? Our conservation lands in the 21st century – how do we protect what we value? Federated Mountain Clubs conference.* Te Papa. *FMC, Box 1604, WN. www.fmc.org.nz/conference*
 - *5 June. Arbor Day and World Environment Day.* Arbor Day is celebrated throughout the world as a day when people are encouraged to plant and care for trees. World Environment Day is an international United Nations event that creates awareness of the environment and encourages political attention and action. www.doc.govt.nz/templates/CustomSummary.aspx?id=80197
 - *26 June. Plants named in honour of Bernard Aston.* Walk. 2 p.m. Otari-Wilton's Bush Information Centre, 160 Wilton Rd, Wilton, WN.

liverworts, hornworts and lichens. Regular attendees are friendly and welcoming; guidance is provided for beginners. Microscopes, lectures, breakfast and lunch-making areas will be in Matawai Hall. Each day will consist of a field trip (usually everyone together), returning to Matawai mid-afternoon for microscope work with lectures & further time for work after dinner. Accommodation: backpackers, or nearby cottages/shearers' quarters. Total costs c. \$380 max. per person for accommodation, meals and field trip transport. Further information can be obtained from the organisers: Anne Redpath wairataforestfarm@farmside.co.nz, and Leon Perrie <mailto:leonp@tepapa.govt.nz>.

GRANTS AVAILABLE

Continuing. GWRC Wetland Incentive Programme provides advice and financial assistance with protecting wetlands on private land throughout the region. GWRC also has a programme that advises and assists landowners with natural areas of value on the coast. www.gw.govt.nz/restoring-natural-areas/

- *Tim Park, Biodiversity Policy Advisor, Environmental Policy, Environment Management, GWRC, Box 11 646, WN 6142. Freephone 0800 496 734, mob 021 972 759, DD 04 801 1036, fax 04 385 6960. www.gw.govt.nz*

31 July. Wellington City Council Environmental Grants.

Criteria, application forms and other information available from:

- *Grants Advisor, WCC, Box 2199, WN 6140, 499 4444, www.wellington.govt.nz/services/grants*

Dates to be advised. Biodiversity Fund. Contact biofunds@doc.govt.nz to ask to be put on e-mail address list so you will be told when applications open and close. www.biodiversity.govt.nz/biofunds

Applicable to projects on private land. Discuss your proposed project and application with Fund staff: Katrina Edwards and Susie James ph 0800 86 2020.

Read the Biodiversity Fund Guides and Exclusions for funding. www.biodiversity.govt.nz/land/nzbs/pvtland/conditionapps.html

– Online applications: Use the form for the Advice Fund or Condition Fund. www.biodiversity.govt.nz/apply The on-line application guide has notes and hints. www.biodiversity.govt.nz/land/nzbs/pvtland/Guide_4_Electronic_Online_Applications.pdf

- *Funds Team, Marketing and Communications Group, Department of Conservation, Te Papa Atawhai, Conservation House, 18-32 Manners St, Box 10-420, WN 6143. 0800 86 2020, DDI: 04 471 3183, Fax: 04 381 3057 www.doc.govt.nz | www.biodiversity.govt.nz*

July – date tba – see web site. Community Environment Fund. The fund arose from a review by the Ministry for the Environment, which resulted in the merger of the Environment Centres Fund, the Sustainable Management Fund, and the RMA Education and Advisory Fund. There will be two funding rounds each year. News release: <http://feeds.beehive.govt.nz/release/govt-announces-community-environment-fund>. More details on the MfE web site: <http://www.mfe.govt.nz/withyou/funding/index.html>

September. Streams Alive. This is a Greater Wellington Regional Council (GWRC) stream restoration programme which supports private landowners in the region. Landowners in the 12 highest priority catchments (see list in article in this newsletter) may be eligible for funding which can cover the cost of eco-sourced native plants, planting by contractors, and follow-up spraying

for two years. The landowner is required to permanently exclude livestock from the site through adequate fencing, control weeds, and commit to continuing protection and maintenance of the site.

- *Contact Anna Burrows (Biodiversity Restoration Advisor - Riparian), anna.burrows@gw.govt.nz, 04 830 4423 or 027 6120 790. GWRC Te Pane Matua Taiao. 1056 Fergusson Drive, Box 11646, Manners St, WN 6142. www.gw.govt.nz/streams-alive/*

PUBLICATIONS

1. NZ Coastal Policy Statement 2010 and report of Board of Enquiry.

- www.doc.govt.nz Hard copy: e-mail nzcps2010@doc.govt.nz, or ring 04 471 0726.

2. New R&D Publications. This memo is available at: www.doc.govt.nz/memo

- *Publishing Team, DOC, Box 10 420, WN 6143.*

3. Biodiversity Funds – Helping you to protect your biodiversity. A4 brochure.

- *Biodiversity Funds, c/o DOC, Box 10 420, WN 6143. Biofunds@doc.govt.nz Ph 0800 86 2020.*

4a. Footnotes. 12/10: Manawatū Rangitikei joins Wellington Hawke's Bay Conservancy; Matiu/Somes Island tenure; Castlepoint dunes restoration; Onoke Spit restoration; Mana Island ecological restoration plan review; etc. 4/11: funding boost for private land conservation projects; landowners restoring part of Wairarapa Moana Wetlands Park; Pati Tapu bush, Wairarapa, purchased; Baring head opened; etc.

4b. Kāpiti Island Nature Reserve. A4 4 pp. colour brochure.

- *Wellington Hawke's Bay Conservancy, Box 5086, WN 6145.*

5. Rakiura Planning Newsletter. 2/11: planning documents approved.

- *View at www.doc.govt.nz*

6a. Threatened Plants of NZ. P de Lange, P Heenan, D Norton, J Rolfe, J Sawyer 2010. Hard cover, 471 pp. Canterbury University Press. Initiative of NZ Plant Conservation Network. Sponsored by MWH. RRP \$99.95 - 10% discount for BotSocers showing a copy of this newsletter.

6b. Wild orchids of the lower North Island – Field guide. P de Lange, J Rolfe, I St. George, J Sawyer 2007. \$15.

- *DOC Visitor Centre, 18-32 Manners St, WN.*

7a. Open Space. 80 3/11: conservation projects making progress; focus on Kāpiti Coast; GPS improves monitoring; research on why birds are important in forests; controlling rats; etc.

7b. Annual Report 2010. A4, 26 pp.

7c. QEII covenants: Protecting and enhancing wetlands on private land. A4 2 pp.

7d. Frequently asked questions about open space covenants. A4 2 pp.

7e. Assisting landowners to protect special features on their land. A4 2 pp.

- *QEII National Trust, Box 3341, WN 61450. www.openspace.org.nz*

8. Bat-wing passion flower; Cape tulip; Hornwort; Phragmites; Salvinia; Water hyacinth. Series of A4 2 pp leaflets

- www.biosecurity.govt.nz

9a. Baring Head. A4 2 pp. 2/11.

9b. Green Shoots. 12/10: Baring Head; biggest planting season; Native Plant Guide; Neil Bellingham honoured; Whitireia Park; etc.

- *Greater Wellington Regional Council, Box 11 646, WN 6142. 384 5708. www.gw.govt.nz*

10. Branch Out. Wellington City Council e-newsletter.

- *Book via info@wcc.govt.nz*

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

- 11a. **'Best Bets' species for restoration planting in the Porirua catchment.** A4 leaflet.
- 11b. **Wellington Botanic Garden Solander Trail.** A4 4 pp.
 • WCC, Box 2199, WN.
12. **NZ Journal of Botany.** Publishes original research papers on all aspects of the botany, mycology, and phycology of the South Pacific, Australia, South America, southern Africa, and Antarctica
 • www.royalsociety.org.nz Publishers www.tandf.co.uk/journals.
- 13a. **NZ Botanical Society.** 102 12/10: news from botanical societies; three new endemic scale insects from NZ pygmy mistletoes; further Eric Godley reminiscences; lichenological memories of John Child; notes on Martin & Child's book on lichens; notes on Frederick Hunt; review: *An Illustrated Guide to Common Weeds of NZ*; etc. 103 3/11: Lara Shepherd takes over from Melanie Newfield as editor; call for nominations for Allan Mere Award by 30/6; call for suggestions for Loder Cup nomination 2011; news from botanical societies; *Lepidium flexicaule*; notes on David Rough; etc.
- 13b. **NZ Botanical Society Newsletter.** Subscription \$25 (\$18 if paid by due date on invoice). Back issues: No. 1 (8/85) onwards \$7 ea.
 • NZBotSoc, c/- Canterbury Museum, Rolleston Ave, CH 8001. www.nzbotanicalsociety.org.nz
- 14a. **NZ Indigenous Vascular Plant Checklist.** Peter J. de Lange and Jeremy Rolfe 2010. A4.131 pp. NZPCN Members: \$18 incl. p&p; non-members \$25 incl. p&p.
 • Network shop on-line at: www.nzpcn.org.nz/shop_products.asp
- 14b. **Trilepidea.** 85 12/10: Global Invasive Species Database; *Celmisia lindsayi*; Botanic Gardens Congress papers; kauri disease; Chatham Is forget-me-not; Quail Is restoration; ignore diversity at Earth's peril; etc. 86 1/11: habitat profiling; *Meliclytus flexuosus*; *Muehlenbeckia* and its relatives; *Centrolepis strigosa*; Motukarara nursery; etc. 87 2/11: National Policy Statement on Indigenous Biodiversity; *Acaena rorida*; Bush Walk and Talk programme; Surville Cliffs kohuhu; mistletoes; toetoes become *Austroderia*; NZ Ecological Society conference 28/8 – 1/9; etc. 88 3/11: message from Rewi Elliot; *Pittosporum dallii*; Briam Molloy honoured; Chatham Island endemic liverwort; National Pest Plant Accord list review; website; on-line bookshop; plant quiz; conservation implications for the geographic distribution of genetic variation lessons for and from fierce lancewood; *Parahebe canescens* rediscovered; role of botanic gardens in plant invasions; etc. 89 4/11: Global Partnership for Plant Conservation; tenure reviews; *Aciphylla subflabellata*; new names for NZ *Triticeae* grasses; on-line bookshop; review of National Pest Plant Accord list; kakabeak discoveries; new location for endangered *Fissidens* moss; Network joins Global Partnership for Plant Conservation; etc.
 Subscriptions: individual \$40; unwaged \$15; NGO \$60; corporate – 6 members - \$250; corporate – 25 members - \$500.
 • NZ Plant Conservation Network, Box 16 102, WN 6242. info@nzpcn.org.nz
- 15a. **Auckland Botanical Society.** Journal 12/10 Vol 65 (2): some small-leaved coprosmas; *Sophora godleyi*; rewarewa & toru - Proteaceae; *Pittosporum kirkii*; obituaries: Ross Beever and Eric Godley; etc
- 15b. **News-sheet.** 4/11: Brian Molloy honoured; toetoes become *Austroderia*; changes for NZ grass names; annual report; etc. 5/11: programme for 2011-12; etc.
 • ABS, Box 26 391, Epsom, AK 1344.
16. **Botanical Society of Otago.** Newsletter no. 62 3/11: reports on joint field trip in Northern Fiordland with Wellington BotSoc; *Hebejebbie birleyi* in Hector Mountains; *Parahebe canescens* rediscovered on Otago Peninsula; weed ferns *Cyrtomium falcatum*, *Cystopteris fragilis* and *Dryopteris filix-mas*; *Raukaua anomalus* on Otago Peninsula; download newsletter from: www.botany.otago.ac.nz/bsot/newsletters/latest/bsot_61.pdf
 • BSO, Box 6214, North Dunedin 9059.
17. **Canterbury Botanical Society.** Newsletter 1 - 2/11: role of botanic gardens in 21st century; *Ferns of the Port Hills* book; etc. 3/11: Brian Molloy honoured; etc. 5/11: classifying confusing coprosmas on computers; etc.
 • CBS, Box 8212, Riccarton, CH 8440.
18. **Manawatu Botanical Society.** Newsletter no. 43 3/11: kawakawa killed by *Phytophthora*; Rangiwahia reserves; *Hypericum*; *Dactylanthus*; Landcare's Climate Sentinel experiment; programme; etc.
 • MBS, Ecology Group, INR, Massey University, Palmerston North.
19. **Rotorua Botanical Society.** 55 12/10: AGM and president's reports; John Nicholls 1920-2011; index for all newsletters from no. 1 – no. 50 produced as CD, - \$10 for members, \$25 for non-members, incl. p&p; Okareka mistletoe restoration project; *NZ's indigenous vascular plant checklist 2010*; etc.
 • RBS, c/o The National Forestry Herbarium, Scion, PBag 3020, Rotorua.
20. **Wellington Botanical Society.** Bulletin no. 52 4/10: *Chionochloa beddiei*; Otari-Wilton's Bush recent history; Elsie Gibbons—obituary; lancewoods & five-fingers: hybridisation, conservation & the ice-age; delimiting species' boundaries in *Uncinia*; *Ourisia*—biogeography, phylogeny, taxonomy; rediscovery of a grass in genus *Simplicia*; out-of-place native plants & restoration; Geoff Park—obituary; Otari & Taputeranga bioblitzes—diatoms; flora of Steeple Rock & The Pinnacles, WN Harbour; Walter Brockie's hybrids; aquatic moss *Fissidens berteroi*; the Carillion landscape. \$21 incl. p&p.
 • WBS, Box 10 412, WN 6143.
21. **Otari-Wilton's Bush Trust.** News and Views 3/11: walks and workbee programme; curator's report; Finn Michalak – Collection Curator; Bernard Cracroft Aston 1871 – 1951; *Myosotis explanata*; etc.
 • OWB Trust, 160 Wilton Rd, Wilton, WN 6012.
22. **Northern rātā; Rimu; Fungi/Ngā Harore; Job Wilton.** Series of A4, double-sided, coloured posters. Each for a gold coin donation.
 • Otari-Wilton's Bush Information Centre, 160 Wilton Rd, Wilton, WN – weekends only.
- 23a. **Forest & Bird.** 339 2/11: Rakaia River; Mackenzie forum; kawakawa dieback; Mokihinui River; marine protected areas; Rangitoto Island; pestbusters; etc. 340 5/11: working toward a bright green future; Mackenzie tenure review undermines forum; rat control; managing introduced pests; value of fenced sanctuaries questioned; Campbell Island; vegetable caterpillars; Mana BioBlitz; etc.
- 23b. **Nature's Voice.** Autumn 11: putting nature on election agenda; Mokihinui River; Mackenzie Basin; native plants in our gardens; Mana BioBlitz; etc.
 • Forest & Bird, Box 631, WN 6140. Office@forestandbird.org.nz
24. **Rahui.** Newsletter Winter/11: biodiversity; Wellington region's biodiversity performance; forest monitoring web site www.formak.co.nz; Mokihinui River; Land Environments of NZ – LENZ; photosynthesis; propagating podocarps; F&B nursery; greening Cannons Creek and Porirua Stream; walks programme; etc.
 • Wellington Branch, Forest & Bird, Box 4183, WN.
24. **Friends of the Wellington Botanic Garden.** Newsletter. 4/11: Pukatea and Waipiro bush walks opened; history of the nursery; etc.
 • FoWBG, Box 28 065, Kelburn, WN 6150.
25. **Gorge Gazette.** 4/11: Stormwater affects riparian plantings; nīkau; biological control of tradescantia; etc.
 • Peter.reimann@paradise.net.nz
26. **Manawa Karioi Restoration Project.** Brochure.
 • MK Society, Box 7337, WN 6242. www.mk.org.nz
27. **Action for Environment.** 161 12/10: Owhiro Bay Quarry land saved; defending the Town Belt; etc.
 • AfE, Box 10 030, WN 6143. Davidjohnlee@hotmail.com

28. **Matiu Really Matters.** 10/12: tenure changes; planting programme; Karobusters; etc.
- *Matiu/Somes Charitable Trust, c/o Box 536, WN.*
29. **A visitor guide to Baring Head.** A4 2 pp.
- *Friends of Baring Head Charitable Trust, Box 38 076, Te Puni Mail Centre, Lower Hutt 5045. www.baringhead.org.nz info@baringhead.org.nz*
30. **Friends of Queen Elizabeth Regional Park Kāpiti Trust.** 4/11: enlarging the remnant forest; planting dates; etc.
- *FoQERPKT, Box 113, Paraparaumu 5254.*
31. **Ecolink.** 12/10: National Environmental Standard for Plantation Forestry; Land and Water Forum; Convention on Biodiversity; National Policy Statement on Biodiversity; Environmental Protection Authority; Coastal Policy Statement; etc. 3/11: Proposed Policy Statement on Biodiversity; ECO conference; Mokihinui River; etc.
- *ECO, Box 11057, WN 10 412. www.eco.org.nz*
32. **Karori & its people.** 368 pp, h/back, illustrated. Section on landscape and natural environment. Karori Historical Society. 2011. RRP \$49.99. Order before 7 June for \$40 if collected from 7 Beauchamp St, Karori, from 13 June weekdays; or \$46.50 incl. p&p.
- *Jan Heynes 04 476 8714 janheyne@xtra.co.nz*
33. **The Carbon Forest - guide to forest carbon sinks.** Kennett Bros. Publishers. RRP \$29.90.
- *Bookstores; or www.kennett.co.nz*
34. **A photographic guide to mushrooms and other fungi of NZ.** Geoff Ridley. RRP \$24.99. Bookshops.

SUBMISSIONS MADE

- **Proposed National Policy Statement on Indigenous Biodiversity**
We started our submission to the Ministry for the Environment by describing the Proposed National Policy Statement on Indigenous Biodiversity (proposed NPS) as a useful addition to the mechanisms currently available for maintaining NZ's indigenous biodiversity. But it took another 12 pages to explain our thinking on the objective and the eight policies that make up the proposed NPS, and the changes we would like to see. One of our early surprises was that the proposed NPS does not apply to public conservation land. We accepted, however, that

finding ways of reducing risks to indigenous biodiversity on private land was a higher priority at this time. Early on in the submission, we described our experience from field trips onto private land - that most landowners were very interested to learn about the special plants on their land and that many, but not all, were happy for us to put the plant lists into the public domain. Where permission was declined, the underlying reason seemed to be fear that alerting the public or bureaucrats to important indigenous biodiversity may lead to potential constraints on their rights and perceived rights as landowners.

We offered a number of suggestions to simplify and clarify the only objective in the NPS. Our recommended wording was: *To promote the maintenance of indigenous biological diversity by protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, and to encourage protection and enhancement of indigenous biodiversity values more broadly.*

The word "maintenance" was a disappointment given the continuing losses of our indigenous biodiversity, and the serious threats ahead, and we had hoped to find something more ambitious in the NPS. However, after so many delays in the preparation of the NPS, perhaps "maintenance" is better than not having any NPS.

We presented six reasons for dropping a caveat in the original objective which introduced the concept of "reasonable" use of land. Our main concern was the inefficiencies and uncertainties it would introduce into councils' statutory decision-making processes. We argued, for example, that it would introduce a tension between land uses which could be regarded as "reasonable" in a particular economic or social situation, but may only exist for a short period, and land uses which are "sustainable" and do not adversely affect the needs of future generations. (National policy statements are developed under the Resource Management Act). In several parts of our submission we stressed that the overall success of the NPS will be dependent on the goodwill and co-operation of the owners of the land and waters that support indigenous biodiversity. Attempting a stronger regulatory and compliance-based approach without these "softer" elements could be disastrous for indigenous biodiversity, as it could lead to the deliberate destruction of indigenous biodiversity that is already significant, or areas that have the potential to become significant.

The application of the NPS to freshwater was somewhat ambiguous. We stated our assumption was that all the policies applied to indigenous freshwater biodiversity because the indigenous biodiversity of aquatic ecosystems is intimately linked with terrestrial indigenous ecosystems. The position of coastal and marine biodiversity was not ambiguous; the proposed NPS does not apply. This means that owners of land adjacent to the coastal marine area may have to become familiar with the implications for their land and business aspirations of two sets of policy statements, regional and local policies and plans - one associated with the terrestrial/freshwater component, and the other associated with the coastal marine component. Council boundaries are a further complication for landowners.

We opposed the inclusion of "offsets" in the NPS at this stage because too little information was available about what they are and how they would work. The Section 32 report (page 66) advised that "offsets of residual effects" greatly adds to the potential effectiveness of the RMA to achieve biodiversity outcomes" but also confirmed the scale of the uncertainties: "The effectiveness of the policy could, arguably, be enhanced if there was greater certainty over when offsetting is, and is not appropriate, and what measures are appropriate offsets, and in what quantity/ratio relative to effects. In reality, however, there is insufficient experience with biodiversity offsets for the policy

DOC Wellington Visitor Centre



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ō Te Whanganui ā Tara*

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**Department of Conservation
Te Papa Atawhai**

to be able to offer that level of detail. It is likely subsequent practice and experience will enable greater guidance to be given in the future, either through amendment to the NPS or by way of non-statutory guidance”.

Future steps in finalising the NPS include the Minister taking a revised draft of the proposed NPS to Cabinet. Its arrival could coincide with the release by the Waitangi Tribunal of its report into the Indigenous Flora and Fauna and Cultural Intellectual Property Claim (commonly known as WAI 262). It is possible that the proposed NPS on indigenous biodiversity may require further development in light of Government’s decisions on the recommendations in the Tribunal’s report.

The proposed NPS was very thought-provoking. MfE staff deserve congratulations for organising very informative seminars in many parts of the country as part of helping people to understand what is involved and what is at stake.

Bev Abbott

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.

The committee

Wellington Botanical Society Jubilee Award 2011 – applications sought

Wellington Botanical Society invites applications for an Award of up to \$2500 to encourage and assist applicants to increase knowledge of New Zealand’s indigenous flora, and to commemorate the Society’s 50th Jubilee in 1989.

Purpose of the award

The Award is open to anyone working in New Zealand. It will be granted for:

fieldwork; artistic endeavour; publication; research; propagation or cultivation of NZ native plants for educational purposes and/or other studies which promote the better understanding of NZ’s indigenous flora and vegetation.

The interpretation of these conditions will be flexible, except that the main criterion will be the furtherance of knowledge or promotion of the intrinsic value of NZ’s indigenous flora and vegetation.

The Award may be used to defray costs such as travel, accommodation, materials or publication.

Applications for the Award

Applications should be made in typescript to:

Secretary, Wellington Botanical Society, PO Box 10 412, Wellington 6143 by 15 November 2011.

There is no prescribed application form, but the following must be provided:

- the applicant’s name, postal address, telephone number
- any relevant position held
- a summary statement of the applicant’s accomplishments in the field of botany—no more than one page
- an outline and timetable for the proposed project for which the Award is sought
- a proposed budget for the project

Selection

The Award will be made to one or more applicants selected by a subcommittee nominated by the general committee of Wellington Botanical Society. Award(s) will be made, and applicants informed of the results in writing, by 24 December 2011. Successful applicants will be required to provide, at an agreed time, a short report on what they have achieved, and an account of their expenditure of Award funds.

The names of the Award recipients, the value of the Award(s), and a synopsis of the project(s), will be published in the Annual Report of Wellington Botanical Society.

*Barbara Clark
Secretary*

Protect high-profile promontory

“Watts Peninsula—the promontory below Mt Crawford—is very much like Baring Head/Ōrua-pouanui . OK, it might be 80%, but many of the values are the same, although the mix is different. It has had a 600-year military history, spanning a very long Māori occupation, the Russian scare of the 1880s, and World War II, and many signs of all those periods remain. It obviously has outstanding landscape and landform values, and also has significant recreational and ecological restoration potential, much like North Head in Sydney.

The major point of difference is that while Baring Head and its values will be protected and enhanced, thanks to a very vigorous campaign in 2010, and some far-sighted political decisions (now that’s an oxymoron), the NZ Defence Force are seeking to carve off what are essentially housing estates, and stick in roads and other infrastructure. Unanimous expert opinion is that this would result in irretrievable loss of many of the site’s unique values.

Some of us object to this, and are lobbying the politicians to ensure that doesn’t happen. If you want to know more, or to help, contact me on rydercj@xtra.co.nz. Don’t ring me—I’ll be too busy pestering people!

Colin Ryder

Wellington Natural Heritage Trust

The Wellington Natural Heritage Trust was incorporated as a Charitable Trust in 1999, following the purchase of Long Gully Bush Reserve, (which runs between Karori Sanctuary and South Karori Rd), by a group of prominent Wellington environmentalists, including BotSoc stalwarts, Barbara Mitcalfe and Maggy Wassilieff.

The Trust’s prime objectives are to:

- a) Identify any areas in the Wellington region that merit protection in their natural state
- b) Secure an appropriate level of protection for them
- c) Own, lease and/or administer them
- d) Restore or rehabilitate their ecological ecosystems and natural values
- e) Eradicate or control pests on them
- f) Permit appropriate access to, and public enjoyment of, them.

To date, the Trust has extended the original 50.5-ha area to about 103 ha under its ownership and/or management. This is the largest block of privately-owned protected land in Wellington city. The Trust’s land is covenanted with the

QEII National Trust, and the area has been designated as a Key Native Ecosystem by Greater Wellington Regional Council. Goat-proof fencing has been constructed around the property. Recently, significant funding from the DOC-administered Biodiversity Condition Fund, and from Wellington City Council, has enabled the Trust to contract the Regional Council to undertake a comprehensive three-year predator and browser control programme.

In 2010, the Trust was instrumental in encouraging the Regional Council and other contributors to purchase Baring Head as an addition to East Harbour Regional Park.

WNHT is now working with partners (WCC, KWST/Zealandia, GWRC, DOC, F&B, WWF) to progress an integrated rural and urban community programme to control pests around Karori Sanctuary in an effort to raise awareness and appreciation of the natural values of Wellington City. If successful, this could be used as a model for “backyard” ecological restoration programmes elsewhere.

If you are interested in supporting the Trust by making a donation, contact Colin Ryder (rydercj@xtra.co.nz) or Tim Park (parkecology@paradise.net.nz), or you can join our Facebook page at <https://www.facebook.com/group.php?gid=130499596977110>

Tim Park, parkecology@paradise.net.nz 021 972759

Threatened Plants of New Zealand

Canterbury University Press

Contributing authors: Peter de Lange, Peter Heenan, David Norton, Jeremy Rolfe, John Sawyer

This book offers an update of David Given's 1981 *Rare and Endangered Plants of New Zealand*. It fulfils its promise in so many ways. Improved technology in

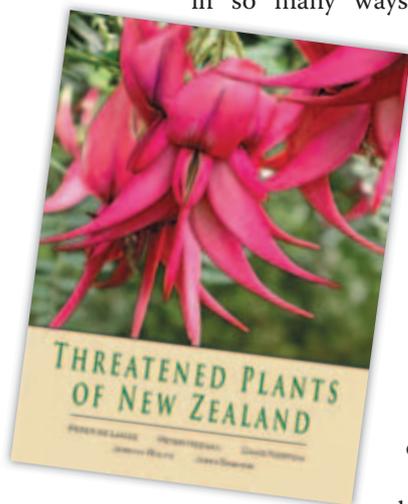


illustration and publishing has enhanced the communication of information on our unique flora, and increased the opportunity for protecting it from predation, ignorance and loss of habitat. It shows that botany is an open-ended science that will continue to extend and improve the knowledge of our plants.

Botanists have been helped by advanced technology adding to their dedication, enthusiasm and skill. There is always hope that species believed to be extinct may be rediscovered, as was the takahē.

Thanks to all involved for the larger, clearer photos, and crisp, informative, text. This will make a valued addition to any enthusiast's bookshelf.

Wellington BotSoccers will be delighted to find that nearly thirty of the plants described occur within our area.

Olaf John

Karori Tunnel eastern portal planting

Karori Tunnel is a piece of Wellington's industrial heritage, well over 100 years old. Readers may remember that in 2002, some of us were involved in an indigenous planting above it. Recently I was invited to join a site visit to discuss with WCC officers what is proposed for strengthening the tunnel and its precinct. Robert Hon, WCC engineer, assured me that the planting will not be affected, except at the very outer edge where the portal will be strengthened and replaced. The almost vertical slope on the TR approach to the tunnel is only metres from the Wellington Fault, and has had minor slips in the past year. Concrete c. 300 mm thick, reinforced with rock anchors will be applied there, covering an area which has been weedy and unsightly for years. The planted, eco-sourced trees and shrubs are now c. 3 m high and are getting much attention from birds.

Barbara Mitcalfe.

Summer field trips

This summer our ten-day field trip will be based at a camp on Mt Taranaki, and botanising the mountain and elsewhere in the province. To help you to suggest where we might go for future summer field trips, here is a list of areas we have botanised in recent years:

N = North Island S = South Island

S 1985/86: Top Valley, Mt Richmond, Wakamarina, Onamalutu

S 1986/87: Seddonville, Glasgow Ra., Mt Rochfort, Oparara

S 1987/88: Hope Ra., Sunrise Pk., Matiri Ra., Lookout Ra.

S 1988/89: Hells Gate, St Arnaud Ra.; Lees Valley, Wairau Mountains

N 1989/90: North Auckland: Puketi; Ahipara; Cape Reinga; Surville Cliffs

S 1990/91: Upper Wairau Valley/Marlborough

S 1991/92: Central Otago – Kawarau River flats

S 1992/93: Mt Peel/Mt Somers/Mt Dobson – Peel Forest, Western Canterbury

S 1993/94: Craigieburn Ra., Arthur's Pass, Torlesse Ra. – Castle Hill Station

S 1994/95: Cobb Valley

S 1995/96: Lewis Pass – Windy Point

N 1996/97: Waiouru/Volcanic Plateau/Tongariro NP – Tangiwai

N 1997/98: King Country/Waikato – Rangitoto Station

S 1998/99: Northwest Nelson – Geology House, Onekaka

S 1999/00: Seaward Kaikoura Range; Hanmer Forest – Mt Lyford

S 2000/01: Southland: Fiordland NP; Lake Manapouri – Borland Lodge

S 2001/02: Mt Cook NP; Lake Tekapo; Mt Cook NP - Lake Pukaki; Lake Ohau area

N 2002/03: Bay of Plenty: Kaimai Ra. – Te Puke; Whirinaki FP; Waimangu - Matata

S 2003/04: West Coast - Kokiri Lodge; Murchison - Matakia Lodge

S 2004/05: Mt Somers/Mt Peel/Mt Hutt – Staveley Camp

N 2005/06 Western Hawkes Bay, Ruahine Ra. – Camp Wakarara, Ongaonga

S 2006/07 Rakiura/Stewart Island – Halfmoon Bay

N Jan. 2008 Aotea/Great Barrier Island – Orama Christian Camp

S Jan. 2009 Westport – Karamea – motor camps
N Jan. 2010 Coromandel Peninsula – Kauaeranga Valley
Education Centre
S 2010/11 Northern Fiordland – Boyd Creek Lodge

If you need more information about our past expeditions, the BotSoc newsletter December 1989 contains a list by AP (Tony) Druce of summer trips back to 1974/75, Anniversary Weekend trips 1962–1989, and Easter trips 1956–1989.

Where else can we go? Your ideas are most welcome – please send them to our secretary, Barbara Clark, WBS, PO Box 10 412, Wellington 6143, ph 04 233 8202, fax 04 233 2222, e-mail bj_clark@xtra.co.nz

Matiu/Somes Island - restoration

Weed management

Peter Russell, Department of Conservation Revegetation Ranger, has had several contracts since 2008 for pest plant and other weed control on Wellington Harbour's Matiu/Somes Island. The contracts have been six-monthly, with six-month gaps in between. He is targeting about 120 species of weeds, including a few that may not be particularly invasive—as a precaution.

Peter's plan for weed control is two-pronged:

Clean-sweep. This approach is akin to a grid-search, at 2-m intervals, killing all weeds he sees, with a few exceptions. He began at the north end, then the central and eastern areas, all of which were less infested than other areas. He is now working towards the west side, from the north and south ends. He is helped by the Karobusters, a group of skilled volunteers, who run six working bees a year whose main target is karo, *Pittosporum crassifolium*, a dominant weed tree on the island, often on steep cliffs, in addition to Peter's work on this weed. Wisely, he does not kill weeds along a track, before the area it traverses is 'clean-swept', because that would give a false impression of progress. His preferred weed killer is glyphosate, rather than picloram. He obtained approval to kill karaka.



Karo that dominated the east coast of Matiu has been killed.
Photo: Peter Russell.

Rare weeds. There are over 20 such species which are rare on the island, and which Peter believes can be eliminated. They include *Iris foetidissima*/stinking iris, *Berberis glaucocarpa*/barberry, *Calystegia silvatica*/greater bindweed, *Selaginella kraussiana*/African club moss, *Dipogon lignosus*/mile-a-minute, *Rubus fruticosus* agg./blackberry, *Salpichroa origanifolia*/lily of the valley vine. Peter marks isolated populations of these plants with a post and tape, and records their location by GPS so that they can be relocated and checked in future.



Peter Russell records the location of blackberry on Matiu/Somes Island.
Photo: Dave Rodgers.

His objective is to systematically eradicate weeds on the island, with the temporary exception of pōhutukawa and karaka, which he is removing from all areas, except for a 'containment zone' of large trees towards the north end. An example of this task is evident above the road up from the jetty, where he has killed pōhutukawa just outside the zone, up to where the road swings south. This is to prevent significant populations of *Leucopogon fraseri*, mānuka and *Pimelea prostrata* being suppressed. Peter's work removing pōhutukawa has resulted in very few comments from the public who generally understand the need for the work, once he explains the reasons for it. Where pōhutukawa, karo, karaka, *Pseudopanax* hybrids, lacebark (*Hoheria populnea*) and karaka, have been drilled, poisoned, and left standing, light-loving trees nearby, such as kohekohe, rewarewa and pukatea, are thriving.

One of his first jobs, in 2008, was to destroy potted-up plants such as *Hoheria populnea*, karaka, *Pseudopanax* hybrids, and pōhutukawa/northern rātā hybrids in the nursery. Nowadays, he has to control at least one weed, *Cyperus eragrostis*, that appears at the base of planted trees, because the seeds of these weeds were in soil in the nursery.

Weeds such as boxthorn, karo and pōhutukawa are visible on very steep sites in several areas which have been swept clean of weeds. Peter is trying to secure resources to enable these sites to be weeded, as well as surveyed for any other weeds which may occur on them, such as boneseed and holly-leaved senecio.

Plantings

Until 1998, large areas were usually planted with hardy, fast-growing, pioneering species, e.g. ngaio, māhoe, taupata. These areas require careful pruning to provide

adequate light levels for future canopy species to thrive, e.g. kohekohe, tawa and podocarps. To avoid the need to prune future plantings after more paddocks are planted, more emphasis will be placed on planting stands of mānuka and kānuka. This will also encourage a wider range of species to germinate and thrive.

In 2008, Peter was asked to plan for secondary plantings, i.e. for canopy, sub-canopy and ground-cover species to be planted under earlier plantings. He recommended shade-loving species be planted in the dappled sunlight under those plantings, e.g. kohekohe, climbing rātā, ramarama, *Leucopogon fasciculatus*, *Coprosma rhamnoides*, *Echinopogon ovatus*, *Uncinia uncinata*, *Libertia grandifolia*, *Carex dissita*, *Asplenium oblongifolium*, *Pteris tremula*. This plan is being trialled at twenty-six sites on Mātū-Somes, two on Mokopuna Island, and two on Mākaro/Ward Island. The sites chosen had little or no veldt grass, were marked with orange flagging tape, and recorded by GPS. This may be the first such trial in New Zealand, but Peter is keen to hear about any similar work with a view to developing best practice.

While traversing areas apparently not surveyed thoroughly by other botanists Peter found the previously unrecorded *Astelia fragrans*, which had managed to survive the era when goats were on the island.

Biosecurity

Years ago, John Sawyer, Department of Conservation, asked that no plants be sent to the island from home nurseries, to eliminate that source of weeds. Recently, however, weeds such as Darwin's barberry and Himalayan honeysuckle arrived in planter bags containing native plants from commercial and council nurseries. To reduce this problem, Peter avoids obtaining plants from some nurseries, and requires others to grow plants for the island in root-trainers, as they have a small surface area, and to raise plants in shade-houses rather than in the open.

Peter has initiated the drafting of protocols to minimise the biosecurity risks associated with nurseries, and the translocation of plants to islands.

Other points of interest

Kermadec pōhutukawa has almost been eliminated. It was recently found wild in Oriental Bay.

Veldt grass colonises some sites under the canopy, where enough light is available. Spraying trials are underway to see if natives can colonise areas previously dominated by this invasive grass.

Tree lucerne is not a concern because it encourages native plants, which then shade it out.

Taupata, cabbage tree and māhoe seedlings occur naturally, and wineberry, titoki and five-finger seedlings are becoming increasingly abundant. *Hebe speciosa* self-sows occasionally, but will probably be shaded out. One patch of *Sophora chathamica*, probably introduced by Māori, grows on the east side, and Peter has grown seedlings to bolster that population. *S. molloyi*, obtained from the South Coast, is to be planted near the wharf where several large pōhutukawa have been removed. *S. microphylla* and other kōwhai species also occur on the island.

Dr Leon Perrie, Te Papa, has recorded six forms of kohuhu/*Pittosporum tenuifolium* on the island, some of which have gone wild.

The Tasmanian relative of ngaio is still present, and appears to be hybridising with native ngaio.

Joakim Liman, a highly-skilled Swedish volunteer, is systematically 'releasing' rare, sun-loving native trees according to a strategy developed by Peter. Unless these trees are rescued, most of them will be suppressed by the faster-growing pioneer plants that dominate the vegetation. Some of the rare trees, which include kohekohe, rimu and totara, are also pruned carefully to encourage vertical growth.



Joakim Liman releases kohekohe. Photo: Peter Russell.

Peter has noted that when boxthorn thickets are destroyed, karo often takes their place. Karobusters then kill the karo, then taupata colonises the sites.

From a 6-m circle around the base of a big karaka near the lighthouse, Peter and volunteers pulled 3000 seedlings and saplings in one day!

BotSoc thanks Peter for taking Chris Horne on a tour of the island, for providing the above information, and answering many questions.

Editor

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

Pseudopanax ferox

Wellington Botanical Society's Jubilee Award to us was a significant contribution to our genetic study of *Pseudopanax ferox*, as noted in the acknowledgements in our paper, "Microsatellite DNA analyses of a highly disjunct New Zealand tree reveal strong differentiation and imply a formerly more continuous distribution" (*Molecular Ecology* 20(7): 1389–1400, April 2011).

We also wrote a subsequent article for NZ Plant Conservation Network's *Trilepidea*: (<http://nzpcn.org.nz/publications/Trilepidea-88-110319b.pdf>), that summarises our main study, and discusses its implications for conservation, both specifically for *Pseudopanax ferox*, and generally for plants in New Zealand.

Dr Leon Perrie and Dr Lara Shepherd

Otari-Wilton's Bush news

Autumn has brought us up to planting time at Otari. Our burgeoning nursery will be able to exhale soon as we begin planting up areas that have been cleared of older plants during late summer. Many of the seeds and cuttings we have collected over the last three years are ready to be planted. The Hebe species border was planted this week.

Our new threatened species garden, adjacent to our nursery, is due to be planted over the next few weeks. Previously this garden ran along our boundary with Otari School. We had resolved to move the garden three years ago when we completed a review of our collections, and decided it was much too out of the way for a collection of plants with an important conservation message. With the new garden will come three new signs with conservation messages for our visitors to read. Seven other collections will also receive new signs. This is a project we have been working on for about a year, in conjunction with Katrina MacLennan, a Museums Studies student from Victoria University, who designed these fantastic new signs for us. They are a big step forward in making our collections more coherent to our visitors.

Those of you who venture up to the Skyline Walkway through Otari will be pleased to see new flights of steps where the top of the Blue Trail meets the entrance to the Skyline Track. No more slipping over after wet weather now!

We have been collecting a bit of seed from the forest at Otari, some of which will be passed on to those growing revegetation areas around the city. We are particularly interested in sourcing seed from those species that are sparse in the forest here, and managed to collect some *Raukaua edgerleyi* recently from two large individuals which were a great find. Several years ago we collected some *R. edgerleyi* seed and the resulting plants have now been planted on forest margins around the collections.

Ka kite.

Rewi Elliot
Ph 475 3245

Percy Scenic Reserve

New development

Most of the new entrance plants have thrived and are bulking up, except for *Metrosideros carminea* which seems to be very slow growing. The site may not be the best, and was hit by a three-day frost last July. Meanwhile NZ passion flower, *Passiflora tetrandra*, is motoring away and has nearly cleared the concrete wall behind the 5-metre rustic fence. Some of the wheki, *Dicksonia squarrosa*, have succumbed to the conditions—wind and exposure—but we are ever hopeful of new fronds appearing this Spring. The final stage of planting in the new car park area will be completed this winter. Notice boards and maps have been erected by the entrance seating, and some smaller track signs have been installed. Access to the reserve's car park is off the bottom of Dowse Drive, Maungaraki, Lower Hutt. No. 150 Kelson buses, from Petone Station, stop at the entrance Mon–Sun. The southern entrance to the reserve is a ten-minute walk from Petone Station, via the pedestrian overbridge, and footpath alongside SH2.

Plant collection news

Plant swaps with Otari-Wilton's Bush have increased the plant collection, and many plants will be planted out this winter in the Druce Memorial Alpine Rockery and reserve gardens.

Thirty Charleston gentians, *Gentianella scopulorum*, were sent to Westport in April. This species is classified as Nationally Critical, and Percy SR has been growing these every year with moderate success. The batch that went to Westport in April was from cultivated, second-generation stock plants that took 18 months to germinate. Seed received from the Charleston wild plants was sown in August 2009 and took 14 months to germinate. Another 25–30 from this first generation will be sent to Julie Geritzlehner, Westport DOC, for a mid-winter planting. Trials are about to begin to break the dormancy of the seed from second-generation stock.

Brachyglottis turneri, a small herbaceous perennial from the upper Whanganui River area, supplied by Wanganui DOC, will be trialled in a damp area, near the boardwalk by the southern lawn escarpment.

Another Wanganui plant, *Sebaea ovata*, an annual herb of back dunes, is under greater threat. Percy SR has been growing this since at least 2002 for replanting into the wild. Trials at Kaipara Harbour and Farewell Spit have failed, as far as I am aware. Jim Campbell, Biodiversity Ranger, Wanganui DOC, has surveyed Whitia Scientific Reserve where the original plants were located, and saw only one plant with a single flower head—they are normally multi-headed. So recruitment is very minimal. As far as Jim is concerned, Percy SR is the only place in NZ with the species. NO PRESSURE!! About 30 small seedlings will be sent to Wanganui for a late Winter/early Spring planting. Plants will also be trialled in the reserve gardens.

Bird news

Kākāriki were heard by an assistant gardener last October, on the Rātā Track above the Duck Pond. Kōtare/kingfisher were seen and heard during the mating season over Spring and early Summer.

Jill Broome, Plant Collections Supervisor, Percy Scenic Reserve

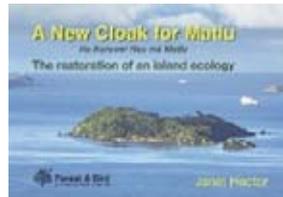
2010 Jubilee Award

We congratulate Andrew Gregg and Stephanie Rowe, recipients of BotSoc's 2010 Jubilee Award. It will provide support whilst they take leave from work to do research for a biography they are writing on "A Life of Leonard Cockayne".

Rodney Lewington
Treasurer

A New Cloak for Matiu: The Restoration of an Island Ecology

This book published by Lower Hutt Branch, Royal Forest and Bird Protection Society of NZ Inc, records a pioneer revegetation project on a very visible island in Wellington Harbour, enabling others to learn from the work.



The book marks thirty years' restoration on Matiu/Somes. It captures the memories of people involved at the start of the project, and those of the many individuals who have contributed so enthusiastically over the years.

With 110,000 native plants planted, and the eradication of pests, the established forest has become the habitat for many species of native fauna not seen on the island for a long time, e.g. tuatara, kākāriki, North Island robin, Cook Strait giant weta, Wellington tree weta, skinks and geckos. It is a place where the public can see them in the wild.

How all this came about is a story worth telling: one that demonstrates the value of ecological restoration, and of volunteer commitment. Purchase the A5-sized book by cheque for \$25.00 from Lower Hutt Forest & Bird, Box 31-194, Lower Hutt 5040, or by credit card from Forest & Bird's web site: <http://forestandbird.org.nz>, . Or e-mail your order to lowerhutt.branch@forestandbird.org.nz, paying by direct credit to the Lower Hutt Forest & Bird account at ANZ Bank 010607-0010643-02. Please include your name in the banking details. Note: Your order will dispatched upon receipt of payment. The book is also available in some local bookshops.

John Groombridge
for Lower Hutt Forest & Bird

Jeanette Margaret Putnam

Jeanette died on Saturday 1 May. With her husband, Penry, she joined BotSoc in 1998. Living in Waikanae, they did not come to evening meetings, but did come on local field trips. We offer our sympathy to Penry and the family.

Rodney Lewington

Porirua Harbour documentaries

The third episode in a series of twelve short documentaries about Porirua Harbour is available at www.livingwatersdoco.co.nz. The organisation would welcome your comments: livingwatersdoco@gmail.com

Pāuatahanui Inlet Community Trust (PICT)

Dr Brian Molloy honoured

The Council of the Royal Society of NZ has elected a strong advocate of native plant conservation, botanist Dr Brian Molloy ONZM, as a Companion of the Royal Society.

The President of the Royal Society of NZ, Dr Garth Carnaby, said the election of Brian Molloy was formal acknowledgement of the outstanding service he had given to botany and ecology in NZ and his willingness to share his knowledge.

"Brian is held in high esteem both in NZ and internationally for his contributions to understanding our native plants and their conservation. He has shared his knowledge and expertise with many people, actively engaging in a number of botanical societies over a very long time. Brian has a particularly high reputation in the farming community for his work with landowners to better manage vegetation of national significance. His career exemplifies true public service".

Dr Molloy has served on the Riccarton Bush Trust for the past 36 years. He was a director of the Queen Elizabeth II National Trust from 1989-1998 and is currently a South Island field representative of the Trust. Dr Molloy began his career as a research scientist in agriculture, later specialising in the conservation and ecology of native plants. Although retired, he continues to work as a botanical and conservation consultant and as a research associate with Landcare Research. In recognition of his stature, he has had two native plants named after him, the Cook Strait kōwhai (*Sophora molloyi* in 2001) and the leafless orchid (*Molloybas cryptanthus* in 2002).

Rodney Lewington

Quintessentially Kiwi survey from DOC

I would like to bring to your attention the promotion running on the front page of DOC's web site which links in with Conservation Management Strategies (CMS). As part of the CMS engagement work, we are asking people to tell us what species and landscapes define who they are as Kiwis. It is a simple survey form to fill in. There is a Fact Sheet in the attached link that explains this in more detail.

www.doc.govt.nz/getting-involved/consultations/how-doc-consults/consulting-on-conservation-management-strategies/what-defines-us/

We will soon be sending out some updates on progress with CMS work—particularly about local engagement opportunities. If you would like to know more, please ring or e-mail me.

Marie Long
Senior Planner, Planning Unit, Policy Group
DOC—Te Papa Atawhai. DDI: 04 471 3209;
E-mail: mlong@doc.govt.nz

Help the Editor

Compiling this newsletter takes several days. If you can help by word-processing your own material and sending it by e-mail, preferably in Microsoft Word, it would be much appreciated.

Southern Environmental Association (SEA) seeks donations

SEA's Island Bay Natural Heritage Charitable Trust has purchased a bush-clad gully, off Derwent St, Island Bay, and are weeding it, and removing earthworks on the valley floor. The property will provide access to the City-to-Sea Walkway. The group welcomes donations towards the cost of buying and restoring the bush.

Donation form for Paekawakawa Reserve

To: Treasurer, Island Bay Natural Heritage Charitable Trust
C/- 36 Ribble St, Island Bay, Wellington 6023

Name(s): _____

Address: _____

Phone(s): _____

E-mail: _____

I enclose (or have deposited into Westpac Account No. 030521-0311090-00) a donation of \$ _____ towards the Trust's costs in establishing Paekawakawa Bush and Bird Reserve, Island Bay.

Environment website - Green TV

The Green TV web site, www.green.tv, is dedicated to environment videos. To check it, watch this video: <http://sp.green.tv/how-to-use-green-tv>

*Nigel Walker, Managing Director,
Green TV South Pacific Pty Ltd.,
Suite 8, 137 Brisbane Rd, Box 1072, Mooloolaba,
Queensland 4557, Australia.
E-mail: mike.lamond@green.tv*

Unique covenanted property for sale

Tony and Helen Druce's house at 123 Pinehaven Rd, Silverstream, will be ready for sale in June/July. Covenanted native bush and gardens, stream, orchard and vegetable garden. Two acres of land. House renovated and redecorated. Large patio, drive-on access.

Please contact Alison Druce. 389 4945. 021 205 2384.
Alison.Druce@paradise.net.nz.

Friends of Baring Head

The group has been formed to ensure that the values of Baring Head are protected, maintained, enhanced and restored, so that our children, and our children's children can enjoy this special place.

Subscription: Individual (waged) \$20; individual (unwaged) \$10; organisation \$50; family \$30.

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

www.baringhead.org.nz,
info@baringhead.org.nz.

"Streams Alive" programme.

Greater Wellington Regional Council (GWRC) provides funding for stream restoration on private properties. Any areas outside the "high priority" catchments* are eligible for advice and support with planning, but not financial assistance. There is no application process at present, and acceptance into the programme is through a site visit, and assessment of the site, and enthusiasm of the landowner. The hot spots for Streams Alive planting at present are in the Mangaroa Valley and in Otaki. (* Karori Stream, Wainuiomata River, Mangaroa Valley, Ration Creek, Waitohu Stream, Otaki River, Waiohine River, Upper Ruamahanga River, Waihora Stream, Glendhu Stream, Kaiwhata River).

Streams Alive has been running since 2004, with plantings being undertaken on over 100 properties. In 2010, 12,741 plants were planted on 66 sites. Landowners also contributed large amounts of time and money for fencing and riparian weed control. The programme aims to encourage landowners to exclude livestock from our waterways, the riparian plantings help to shade the water, and thus regulate water temperatures, improving in-stream habitat for native fish and invertebrates. Riparian plantings can also soak-up nutrient run-off, improve water quality, and contribute to the creation of native vegetation corridors through agricultural landscapes.

The Streams Alive programme is fully subscribed for the 2011 planting season. Applications for 2012 will be taken from September 2011.

Because of the creation of Greater Wellington Regional Council's (GWRC) new Biodiversity Department, and drafting of the Biodiversity Strategy, this programme, including the list of priority catchments, will be reviewed over the coming year.

For more information on Streams Alive, or for copies of GWRC publications on riparian and wetland restoration, fish-friendly culverts, and ecologically-sound pond-creation, contact Anna Burrows (Biodiversity Restoration Advisor - Riparian), GWRC Te Pane Matua Taiao, 1056 Fergusson Drive, Box 11646, Manners St, WN 6142.

E-mail: anna.burrows@gw.govt.nz;

Ph 04 830 4423 or 027 6120 790.

www.gw.govt.nz/streams-alive/

Kāpiti Coast District Council

Forest and Bird Protection Society's Kapiti-Mana Branch submission to the District Plan review process seeks to include an aim, and a provision, to link existing remnants of indigenous ecosystems, in order to create ecological corridors, whenever opportunities may present themselves. The council's interim progress report indicates that it will be at least a year before council starts to firm up on what will be included in the draft to be issued for consultation.

*John McLachlan
for Kāpiti-Mana Branch*

TRIP REPORTS

29 December 2010 – 7 January 2011: Northern Fiordland

This was a memorable gathering, thanks to wonderful places to botanise, the suitability and location of Boyd Creek Camp building and campsites, Mick Parsons's organising, Sheelagh Leary's catering, a generator, roasting stove, and botanical knowledge supplied by Otago participants, the use of the DOC visitor centre for a talk, the wholehearted involvement of everyone who came on this combined Wellington Botanical Society and Botanical Society of Otago field trip, coupled with mostly excellent weather.

Day 1, 30/12/10: Cascade Creek; Lake Gunn Nature Walk; Deer Flat

A patch of bush, a bend, a swamp – you'll know where you are. Yeah right.

The first of the joint Wellington & Otago botanical societies' summer camp was overcast and windy. We crossed Cascade Creek, dipping our toes into the waters of the Eglinton Valley botany. Plants seen on the bush edge immediately over the stream included *Aristolelia fruticosa* and *Coprosma dumosa*.

On the flood plain 1 m high *Hebe odora*, in flower, and *Halocarpus bidwillii*, with cones, dotted the grassy swamp area. We saw *Geranium microphyllum* with striking red and brown leaves, *Dracophyllum prostratum*, *Androstoma* (ex *Cyathodes*) *empetrifolia*, *Lycopodium fastigiatum* and *Coprosma elatirioides*, with *Carex coriacea* and *C. sinclairii* in flower. Underneath all the other plants grows *Blechnum*

penna-marina. A highlight for some was *Ranunculus multiscapus*, and we did find *Schizeilema haastii* and *Leucopogon fraseri*. After crossing back over the swift stream, swollen by heavy rain, many photographed the two large purple berries on *Coprosma atropurpurea*, and the single plant of *Scleranthus brockiei*.

We then entered the ancient red beech forest, *Nothofagus fusca*, nearby, to follow the Lake Gunn Nature Walk. The huge, moss-covered trees that had never been logged were impressive for their height, 40m+, their boles, and their buttress roots. The reserve was littered with wind-throws. The track looped past the end of Lake Gunn and its outlet, where the water level was still high and the flow strong. Excellent interpretation panels help overseas visitors take an interest in the plants, but many of the plants highlighted have had their names changed since the signage was installed.

Amongst the mosses on the forest floor were many clumps of flowering orchids e.g. *Gastrodia*, *Pterostylis australis* and *P. banksii*. Trees other than red beech included *Raukaua simplex*, Hall's totara, (*P. cunninghamii*), *Halocarpus biformis*, *Olearia avicenniifolia*, *Pseudopanax colensoi*. Young pōkaka, with all its diversity of foliage, grows near the water's edge. Some people watched a fledgling robin, almost fatally caught in *Uncinia*, free itself and fly off to preen.

About 3 p.m. we drove to the

DOC campground at Deer Flat, another flat area on the same wide valley floor. Our instructions were to look for a patch of bush, a bend, and a swamp. In the Eglinton Valley, how specific is that! Several hard rock outcrops, known as kames, are found here. On one of the kame outcrops in the swamp, there were several uncommon species, e.g. *Meliccytus flexuosus* and *Carmichaelia petriei*. Three black-fronted terns flew by.

Those who abandoned the idea of retaining dry feet were rewarded with discovery of the rare grass, *Deschampsia cespitosa*, thriving in the flooded area nearby.

In the silver beeches, *Nothofagus menziesii*, hung magnificent clumps of mistletoes, *Peraxilla tetrapetala* and *P. colensoi* in flower, right at camera height. Growing nearby in swampy ground, the *Coprosma propinqua* shrubs held many tiny *Korthalsella clavata* in berry. All these mistletoes were mature plants. We saw rodent traps nearby.



Peraxilla colensoi, Deer Flat, 30/12/10.
Photo: Julia Stace.

While returning to our vehicles people found *Olearia ilicifolia* and *Hoheria glabrata* flowering on the riverbank, and one of the Otago group finally was satisfied to find a plant of *Ranunculus ternatifolius*.

As many people now record their plants of the day on digital cameras, the old system of the evening



BotSoccers on the flood plain of the Eglinton Valley, 30.12.2010. Photo: Julia Stace.

specimen table was abandoned, in part owing to concern over the restrictions of our collecting permit. Also the lack of space and lighting at night at the Boyd Creek camp contributed to its demise.

Mick Parsons & Julia Stace

Day 2, 31/12/10: Gertrude Saddle, Upper Hollyford Valley

Upper section: Leaving the valley floor, a host of new species appear including pineapple shrub (*Dracophyllum menziesii*), *Coprosma serrulata*, *Astelia nivicola* and *A. petriei*, *Chionochoa ovata*—with lovely purple heads, *C. crassiuscula*, with curled leaves, *Coprosma fowerakeri*, *Olearia moschata* and *Brachyglottis revoluta*. Flower stalks of Haast's carrot (*Anisotome haastii*) stood up above the surrounding vegetation, and along with the white *Celmisia verbascifolia* flowers, and yellow *Dolichoglottis lyallii* and *Bulbinella gibbsii*, created a delightful picture against the backdrop of the almost sheer rock face at the head of the valley.

On the screes we saw *Montia sessiliflora*, much harebell (*Wahlenbergia albomarginata*), *Celmisia bonplandii*, *Myosotis lyallii*, and a patch of *Haastia sinclairii* with two magnificent flowers.

In crevices in the scratched rock above and below Black Lake, we found *Ranunculus sericophyllus* in flower and *Aciphylla congesta* with tightly-packed flower heads yet to come out.

On the saddle itself were flowering *Aciphylla congesta* and *A. multisecta*, and also the vegetable sheep, *Raoulia buchananii* and *Kelleria croizatii*, and in the snowbanks was *Chionochoa oreophila*. Those reached the saddle had great views to Milford Sound, and vertically down to Esperance Valley. A lucky few saw a rock wren on the scree, and the same group also had a close encounter with a kea.

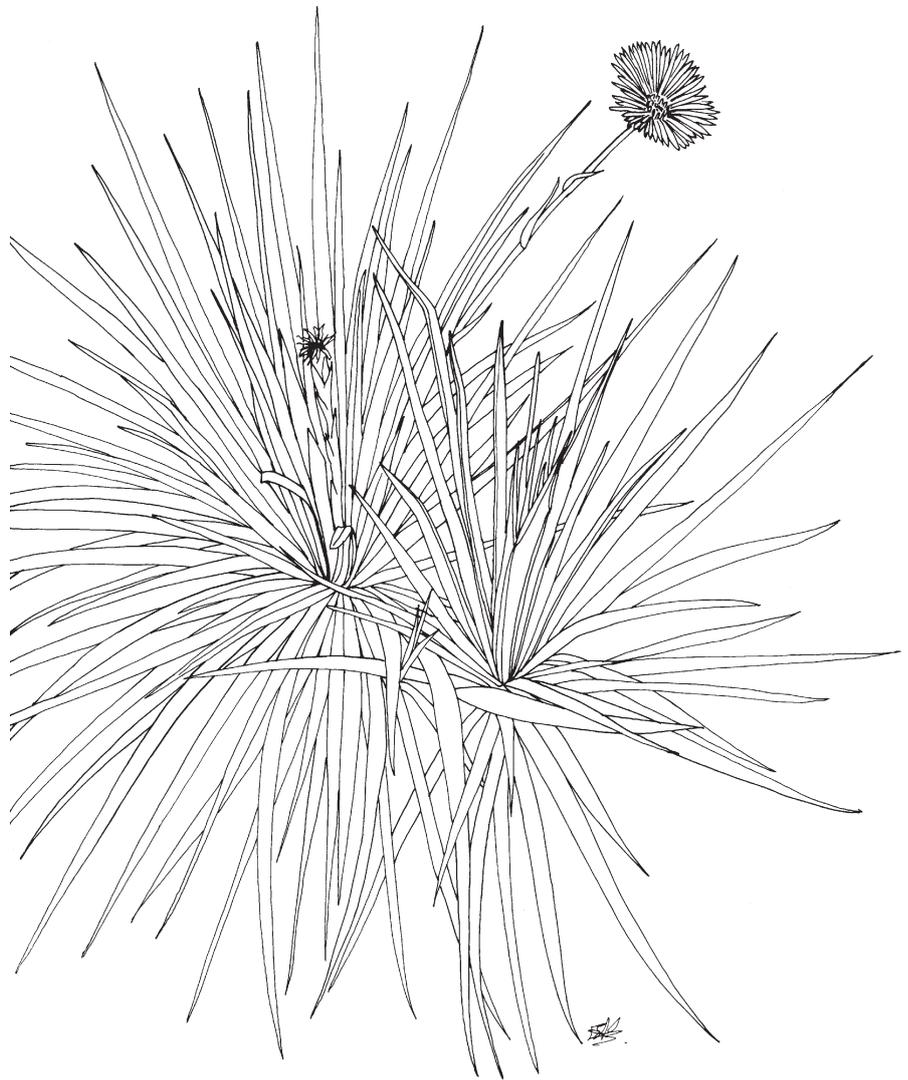
Brian Rance and Barbara Hammonds

Day 3, 1/1/11: Key Summit

In reasonable weather, we set off from The Divide, the lowest pass across the main divide, at c. 400m. The wet beech forest (*Nothofagus menziesii* and *N. solandri* var. *cliffortioides*) on the lower slopes had several understory species of interest, including the large, tufted, filmy fern, *Hymenophyllum*

pulcherrimum, and both crepe ferns, *Leptopteris hymenophylloides* and *L. superba*. There was an overhanging bank with very large, very dark maroon and very late flowering *Nematoceras macranthum* which attracted much attention from photographers. We saw two lovely *Cordyline indivisa*, and *Brachyglottis buchananii* in spectacular flower on the bank of a little stream.

The track emerged into the open on a large area that has been cleared by a fire or a slip, and this extends to the bush line. The steep zigzag track had lovely patches of *Blechnum montanum*, with beautiful bright red, new fronds.



Celmisia petriei. Illustration: Eleanor Burton.

The tarns at the top of the zigzag had some cushion plants in flower. These included *Donatia novae-zelandiae*, *Kelleria croizatii*, *Phyllachne colensoi*, and the little moss-like rushes *Gaimardia setacea* and *Centrolepis ciliata*. It took a while to identify a small plant in the bog that looked like an *Abrotanella* - the

little umbelliferous *Actinotus novae-zelandiae*. The gentians were not quite in flower, and the *Oreostylidium* were mostly finished flowering. There were *Drosera arcturi* and *D. spathulata* in flower, some of which were quite tiny.

Further up, the subalpine scrub was interspersed with open tussock. Here the lovely *Hebe macrantha* showcased its oversized flowers, against serrate leaves, and patches of *Dracophyllum menziesii* provided patches of dark red. *Celmisia petriei*, with its sword-shaped leaves, was common at higher altitudes. A few plants of the orchid, *Wairea stenopetala*, were also in flower.

People who reached the true tops found woody vegetation, e.g. *Olearia arborescens*, in large rock crevices where they were protected from browsing animals.

Gael Donaghy

Day 4, 2/1/11: Lake Mistletoe; Pleasant Bay

Day 5: 3/1/11: Borland Saddle/ Mt Burns

We had another fantastic day, despite the ominous steady rain overnight which continued during breakfast and preparation time. However the previous day's forecast proved itself with the rain having almost stopped by the time we reached Te Anau and the sky clearing to the south where we were heading. At Borland Saddle we met Professor Alan Mark and Dr Kath Dickinson.

Alan talked about the botany, ecology and geology of the area and also discussed the extensive research history of the site. A GLORIA monitoring site is located on the Mt Burns ridge. This is part of an international research project looking at climate change.

The beech forest we climbed through was dripping with the lichen, *Usnea articulata*, and the trunks were covered with other lichens including the perforated *Menegazzia pertransida* and *Pseudocyphellaria* species.

Above the treeline we looked down to Pyramid Lake. The lake and surrounding lumpy landscape were formed by the huge Borland landslide, thought to be the largest in the world. The lake lies in a depression surrounded by red tussockland below the beech forest, i.e. an inverted treeline.

Mt Burns has a very rich flora. Of special note is the diversity of snow tussocks (7 species of *Chionochloa*) and alpine daisies (18 species of *Celmisia*). *Chionochloa teretifolia* with its very hairy leaf margins was striking in the lower tussocklands, and higher up, two forms of *C. crassiuscula*—a longer-leaved and a shorter one, which formed swards. All three of these have many curled leaves giving them a distinctive appearance.

We were treated to a lovely sunny day and little wind, allowing the party great botanising. Most of the group made it up to the upper, rocky, summit ridge (around 1600 m). We were also lucky with it being a very good flowering year. Plants putting on a great show included *Celmisia*, *Chionochloa* and *Aciphylla*. Most impressive were the *Aciphylla*: *A. lyallii*, *A. pinnatifida*, *A. congesta* and *A. crosby-smithii* on the way to the summit ridge. Also impressive was the

flowering of *Ranunculus buchananii*, *Dolichoglottis scorzonerooides* and the tiny *Euphrasia integrifolia* in the rocky valley below the summit.

Astelia linearis was putting on a good show with many jelly-bean fruits visible in the sward among the *Chionochloa*. It was interesting to see *Grammitis poepiggiana* growing in mats on rocks high up in the tussocklands.

The rich diversity of habitats provided for a rich flora. Major habitats included wetlands, shrub tussock, tussocklands, rockfields, herbfields, fellfields and rocky ridge/slope. The fellfields on the solifluction terraces along the upper ridge of Mt Burns are an interesting feature. The GLORIA site is located on these, and was chosen as it is the lower altitude limit for several alpine plants.

Some of the alpine plants flowering on these terraces, and the banks between them, were *Leptinella goyenii*, *Raoulia hectorii*, *Chionohebe ciliolata*, *Celmisia hectorii*, *C. sessiliflora*, *Geum uniflora*, *Kelleria croizatii*, *Phyllachne colensoi* and *Hectorella caespitosa*. Lichens up here included the black, hairy *Gowardia nigricans* and mats of brown *Cladia aggregata*.

Alan and Kath were visiting the site to download a year of data from the four soil temperature and one air temperature dataloggers, which record the temperature each hour. The project now has eight years of records, with two more to go before the data is analysed. Brown creepers were active in the beech forest on the way down.

Brian Rance & Barbara Hammonds

Day 5: 3/1/11: Eglinton River delta; Boyd Creek

Those who decided to forgo the Mt Burns exodus settled on a trip closer to camp, to the mouth of the Eglinton River. Rain further west had greatly boosted river flows, so our hopes of exploring the shingly delta were curtailed. A churning, discoloured torrent discharged into the blue waters of Lake Te Anau, carrying with it small trees, branches and associated debris. Nevertheless we explored the river-side margins within reach, at first recording mostly adventives from this highly disturbed site, but also noting reddish clumps of

Carex buchananii, with a backdrop of *Phormium tenax* in flower.

Probing further into the fringe of mānuka, we discovered considerably more indigenous diversity than was first apparent. Seedlings and saplings of woody species included *Coprosma tayloriae*, *C. rigida*, *Carpodetus serratus*, *Griselinia littoralis*, *Pittosporum tenuifolium*, *P. eugenioides*, *Gaultheria antipoda*, *Hebe salicifolia*, *Dracophyllum longifolium*, *Myrsine australis*, *Lophomyrtus obcordata* and *Olearia ilicifolia*. Perhaps the most unexpected find was a few plants of fine-leaved parsley fern, *Botrychium bifforme*. By lunchtime our numbers had dwindled, seduced by the promise of lattes and cell-phone coverage in Te Anau.

The remainder returned to Boyd Creek, spending the afternoon investigating the beech forest margin near the access road to the camp. The creek is scenic and drops over a series of small cascades, with flowering *Hoheria glabrata* extending out over the water. More *Botrychium* generated interest, along with *Gastrodia* orchids. Curiously, a few plants of the speargrass, *Aciphylla subflabellata*, defended some grassy riparian clearings.

The final highlight of the day occurred back at camp at 10 p.m. when a bat swooped low and circled over the multitude of tents nestled amongst the beech and bog pine.

John Barkla

Day 6, 4/1/11: Boyd Tops Track

From the edge of Boyd Camp we set off through mountain beech forest encountering red and yellow mistletoe on the way, until we reached a large, open, bog area, a must-stop place returning memories of Middle Earth, and for some of the party the extent of the day's trip.

Further on above the bush line lay a large basin backed by greywacke screes leading up to the southern summit of the Countess Range. The floor of the basin has extensive wetlands to the north side, and hummocky country in the south. The basin also contains a diversity of scattered wetlands and tarns.

Wetland species included: *Donatia novae-zelandiae*, *Oreobolus pectinatus*, *Dracophyllum prostratum*, *Cyathodes empetrifolia*, *Pentachondra*

pumila, *Abrotanella caespitosa* and cushion bog.

The largest lake in the upper portion of the basin contains many interesting plants around its margin including *Deschampsia caespitosa*, *Stenotachys laevis*, *Isolepis basilaris*, *Acaena fissistipula*, *Rorippa palustris*.

On the lower slopes, red tussock grew, and narrow-leaved tussock grew on the drier upper slopes.

Below the scree we saw snow tōtara, *Coprosma cheesemanii*, *Dracophyllum rosmarinifolium*, *Gaultheria crassa*, *Olearia cymbifolia*, *Myrsine mummularifolia*, *Hebe odora* and *H. rakaiensis*.

On the scree we found *Epilobium* sp., *Stellaria roughii*, *Cardamine* sp., *Haastia sinclairi*, and on the rocky summit *Hebe epacridea*, *H. petriei*, *Epilobium crassum*, *Leptinella pectinata* subsp. *willcoxii*, *Chionohebe thomsonii* and others.

Along the route through the beech forest the twitter and screech of many a bird accompanied us, including bountiful, twittering, rifleman, curious robin, shy tomtit, chattering kākā and screeching long-tailed cuckoo.

Margaret Herbert

Day 7, 5/1/11: Takahē Valley

Day 8, 6/1/11: Milford Sound

Driving to Milford Sound was appropriate for what was forecast to be a wet official last day of the camp. Most of the group opted to take the recommended 1.5-hour cruise to the Discovery Centre and Deep Water Observatory. After experiencing the famed Fiordland scenery in the rain: shrouded tops, thundering waterfalls and tantalising vegetation on sheer cliff faces, we observed some of its marine life from the observatory discretely located in a hidden bay. As a result of the high annual rainfall, and narrowness of the fiord, a layer of dark, fresh water accumulates over the sea, creating a deep ocean environment at a much shallower depth than usual ('deep-water emergence'). A spiral staircase descends over 10 m to the viewing chamber from which we saw anemones, sponges and corals, including the delicate-looking black

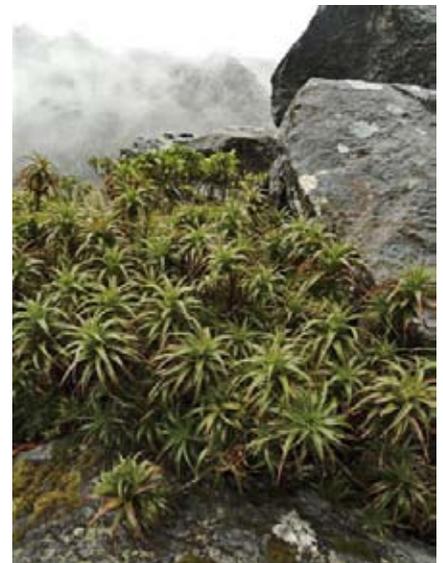
coral which appears white owing to its coating of other organisms, and fish species free to come and go.

The short Lookout Walk yielded the shrub *Archeria traversii* with an accessible raceme of waxy pink flowers, which the photographers under their umbrellas tried desperately to record. The genus, which has about five species in Tasmania, and two endemic to New Zealand, is named after William Archer (1820–1874), a Tasmanian architect, politician, botanical artist and plant collector, who for two years assisted Sir Joseph Hooker at Kew. William Travers (1819–1903) collected in Nelson and Marlborough and helped establish the Wellington Botanic Garden.

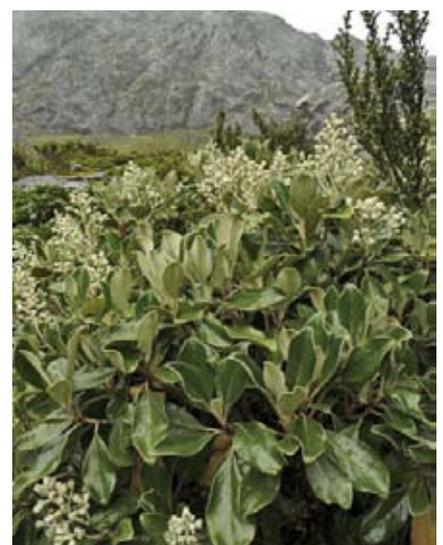
On the way back to camp we joined the tourists at the Chasm Walkway on the Milford side of the Homer Tunnel, and managed to extend the stated 20-minute walk into more than an hour. The dramatic views and thunder of the swirling Cleddau River, and the dripping forest draped in ferns, mosses and lichens were overwhelming. In contrast, the East Homer Nature Walk at the eastern portal of the tunnel is an open alpine landscape of rock and scree carved from the surrounding mountains by glacial action—and we had it almost to ourselves! The names of many of the shrubs and herbs, such as *Archeria traversii* earlier in the day, commemorate people, some of them well known to NZ botanists, and others less familiar. The large, glossy foliage of the giant buttercup, *Ranunculus lyallii*, and the distinctive bronze, tapered leaves of pineapple scrub (*Dracophyllum menziesii*) were easily recognised. Other species we saw included South Island leatherwood, *Brachyglottis buchananii* (syn. *Senecio bennettii*), low-growing, spreading *Coprosma fowerakeri* (previously included in *C. pseudocuneata*), the now rather rare *Astelia petriei*, and the daisies *Celmisia walkeri*, *C. du-rietzi* and *C. bonplandii*. It was an enchanting place in spite of (or perhaps because of) the rain.

Val Smith

Participants: Bev Abbott, Margaret Aitken, Tony Aldridge, John and Marilyn Barkla*, Robyn Bridges*, Barbara Clark, Dr Kath Dickinson, Gael Donaghy, Rewi Elliot, Dale Every, Ken and Julia Fraser, Ian and Jill Goodwin, Alyth Grant*, Bryan and Robin Halliday, Barbara Hammonds, Margaret and Richard Herbert, Chris Horne, Graeme Jane, Allison and John Knight*, Sheelagh Leary, Rodney Lewington, Stephen Lungley, David Lyttle*, Sir Alan Mark*, Barbara Mitcalfe, Kaaren Mitcalfe, Chris Moore, Syd Moore, Mick Parsons, Brian and Chris Rance*, Judy Russell*, Darea Sherratt, Barbara and Neill Simpson, Val Smith, Julia Stace, Carol West, Cathy Wylie. * = Botanical Society of Otago.



Dracophyllum menziesii. Photo: Val Smith.



Brachyglottis buchananii. Photo: Val Smith.

26 March 2011: Baring Head/Ōrua-pouanui, Wainuiomata

The 284-hectare Baring Head/Ōrua-pouanui property was purchased in 2010, and added to East Harbour Regional Park. It is classified as “Scenic Reserve”, and managed by Greater Wellington Regional Council. Map: NZTopo50-BQ32 Lower Hutt.

This trip was postponed from 5 March, owing to a poor forecast. Compilation of a plant list for the site began in 2002. We thank Pat Enright for providing the latest edition listing 192 indigenous and 135 adventive plant species. The property runs from Baring Head, 2.3 km up the Wainuiomata Valley, with Coast Road to the east, and Fitzroy Bay to the west. There is a 16-h private enclave on the raised marine terrace. The property contains a diverse range of habitats from coastal turf, dunes, coastal bluffs, wetlands, river estuary, raised beaches, scree slopes, riparian strips, and an extensive ‘grey scrub’ community on the scarp above the true right river flats that intergrades with regenerating broadleaf forest above the “White Bridge”. We started botanising 200 m south from the bridge, along the true right river flats, then screes and “water-pipe gully”, then sidled south to a spur up to Para trig, 167 m, then south along a spur to bluffs, and returned along the river terrace.

The ‘grey scrub’ community includes: *Cordyline australis*, *Carmichaelia australis*, *Coprosma propinqua* subsp. *propinqua*, *Ozothamnus leptophyllus*, *Clematis forsteri*, *Muehlenbeckia complexa*, *Parsonia capsularis*, *Rubus squarrosus*, *Scandia geniculata*, *Tetragonia implexicoma* and *Phormium cookianum* subsp. *hookeri*.

Some more notable plants within this ‘grey scrub’ community are *Brachyglottis greyi*, *Clematis afoliata*, *Discaria toumatou*, *Muehlenbeckia astonii* and two mistletoes, *Ileostylus micranthus* and *Korthalsella lindsayi*.

NZ ‘grey scrub’ plant communities have evolved in response to the country being surrounded by large tracts of ocean, and being in the Roaring-Forties climatic zone. At Baring Head, severe southerly storms carry salt-laden air 1-2 km inland, restricting vegetation to mainly small-leaved, salt-tolerant shrubs and lianes.



Ileostylus micranthus (top) and its impressive tangled stems. Photos: Sunita Singh.

‘Grey scrub’ plant communities are becoming rare, owing to farming practices, people’s desire to live on the coast, and adventive plant invasion, so ‘grey scrub’ has a proposed Conservation Status of “Serious Decline”. Plant Conservation Strategy - Wellington Conservancy (excluding Chatham Islands) 2004 – 2010, p. 42.

Since our 2004 field trip to the property, it has been heavily stocked with cattle and sheep, domestic pigs have run loose, and rabbits, hares and possums have all helped to deplete the ‘grey scrub’, restricting regeneration. Cattle have damaged coastal dune plant communities by trampling and ripping out plants, disturbing the sand substrate. The good news is that cattle will be removed on 31 May 2011.

To prevent further damage, we recommend:

- confining sheep and lambs to pasture in securely-fenced paddocks on river and marine terraces, so that they cannot enter ‘grey scrub’, or other indigenous plant communities on the raised marine terrace, the faces and the cliffs below it, the river terraces and the raised beaches.
- asking the enclave owner to keep his pigs and piglets in secure pens
- trapping/poisoning all mammalian pest species, plus magpies, to foster the return of natural functioning of the various eco-systems on the property.

We recommend that Greater Wellington:

- kills gorse (*Ulex europaeus*) and boxthorn (*Lycium ferocissimum*) promptly, and the old man’s beard (*Clematis vitalba*) at GPS E 2667119 N 5976523 before seed is ready to disperse.
- removes the class B noxious plant, *Egeria densa*, in the river by the bridge
- kills the *Erica lusitanica* on adjacent Coast Road cuttings, but not recorded on the property, to stop it spreading to the property.

Suggestions for recovery of at-risk plants on the property:

Ileostylus micranthus: in 2004, six plants were known in the lower Wainuiomata Valley, three on the property. By February 2011 none of these plants had survived. However, two more adult plants have been found on the property, near the original site. Unless one of these plants is a female, extinction is inevitable. We recommended that the mistletoe sites be fenced off immediately, until permanent fencing is erected.

Clematis afoliata: the sole plant suffers continuing browse. We recommend that the site be fenced off immediately, until permanent fencing is erected. Plants may be able to be produced from cuttings.

Discaria toumatou, matagouri: though not uncommon here, plants become clogged with exotic grasses, and many have an unhealthy yellow appearance; some die. We recommend that a trial be done using a grass-killing spray to see if this eventually frees the plants of grass. Bare ground under the plants could facilitate recruitment.



BotSoccers at the Baring Head matagouri site. Photo: Sunita Singh.

Muehlenbeckia astonii: the two plants known were in fruit in March 2011. No seedlings were found among

the exotic grasses growing under or near these plants. We recommend that a larger area be fenced off, to exclude sheep, rabbits and hares, and that grass in the enclosure be killed with a grass-killing spray, to see if bare ground will encourage recruitment of genetically diverse plants. If numerous plants result, they can be used for restoration work across the property. Otherwise, cuttings of this

Frances gave everyone a site guide which included a base species list (developed from other Wellington south coast sites), and an aerial photograph of Breaker Bay and south Seatoun. This gave us our bearings and also showed public land ownership and blue water rights around Point Dorset.

Unsurprisingly, progress was slow as we did a thorough search of the plant community below Breaker Bay Rd, a blend of native and adventive species. Long-leaved poa, *Poa anceps*, and leafless sedge, *Ficinia nodosa*, are common here. After a stop for a cuppa on the rocks we moved around the bay, poking among the toe-

plant are easy to strike, and can be used in the interim for restoration work.

For other plants, providing habitat that is free of browsing animals, and predators of native birds and lizards, will allow the natural regeneration processes to work.

If some plantings are considered necessary to speed the recovery process, we recommend that

1 April 2011: Breaker Bay

slopes and peering up at the cliffs, all the while adding to our list. Weed species from elsewhere in NZ, e.g. pōhutukawa, karo, and *Pseudopanax lessonii* hybrids, are common here, and it was in such vegetation that we found *Adiantum cunninghamii* surviving, protected by the trees from southerly gales.

After lunch on convenient driftwood logs, and a respectable distance from other beach visitors, we found the tiny *Colobanthus muelleri*, in crevices in the greywacke cliffs, and the pest plants pig's ear (*Cotyledon orbiculata*) and fairy crassula (*Crassula multicava*) also on the cliffs.

cuttings, seed or divisions of plants be strictly from the property, and plantings blended into existing plant landscapes, to avoid a gardened appearance.

Participants: Margaret Aitken, Gavin Dench, Chris Hopkins (leader/scribe), Chris Horne, Maya Hunt, Rodney Lewington, Mick Parsons, Darea Sherratt, Sunita Singh, Carol West.

Wellington City Council is working on a draft management plan for the Point Dorset natural area. We have provided WCC officers with a copy of our final plant list and hope that it will inform their decision-making. You can have your say on the draft plan later in the year. Check the [WCC website](#) for a copy of the draft plan.

Frances Forsyth & Chris Horne

Participants: Barbara Clark, Rosemary Collier, Rae Collins, Gavin Dench, Frances Forsyth (leader), Chris Hopkins, Chris Horne, Rodney Lewington, Darea Sherratt, Sunita Singh, Julia Stace.

Easter 22–24 April: Northern Wairarapa QEII Covenants

Friday

We were very comfortably accommodated in and around Ngaire and Ron Burns' shearers' quarters for this weekend of perfect Autumn weather in the Waihoki Valley, Tiraumea. After arriving and setting up in the late morning, we began botanising Jamie and Jeane Fowler's covenant before lunch. Under a canopy of mature podocarp-broadleaved forest, we climbed a gently sloping face to view a huge, emergent, northern rātā, *Metrosideros robusta*, possibly 500–700 years old. Although the covenant was established about 12 years ago and fenced 5–6 years ago, ground-cover species were mostly still at an early stage of development. However we did note some ungulate browse on saplings in the understorey, and we were told that goats occasionally find their way in, and indeed we did hear one. Further up, an immense, emergent black maire reared its huge crown above a heavy load of

epiphytes. In this vicinity I picked up a fresh leaf which looked very like *Mida salicifolia*, maire taiki/willow-leaved maire, and though I could not distinguish mida in the canopy, I was able to confirm it later in a good light, remembering that the leaf is punctulate. This was the only occurrence of mida during our visit, so it was a lucky find.

Saturday

The Liverton family settled in the Waihoki Valley in 1868 and most of the covenantors are related. In this covenant, between the road and the river, stands an impressive masonry memorial, commemorating family members who have passed on. High above it, lean some of the largest kōwhai most of us had ever seen. We made several forays into this covenant and also along the river bank. The last foray was into an impressive stand of tawa, beyond which was a small wetland.

We lunched at the site of the former Waihoki Valley School, then

descended a farm track to the river. Sidling on the true right, we paused to study a feldspathic sandstone formation over which the stream tumbled, then crossed a tributary, and climbed steeply to reach the top of this second covenant of the day. It appeared that a shelter-belt of Tasmanian blackwood, a species which naturalises readily, had been planted here, as we saw again later on Route 52. We then traversed farmland above mature tawa forest, and passed through some severely slumped terrain, perhaps resulting from the large earthquake in the 1930s. After reaching a farm track, we descended into impressive podocarp/tawa forest where we saw large kahikatea, matai, tōtara and miro, with an understorey beginning to recover from browsing.

Sunday

We crossed pasture and descended a steep farm track into tōtara forest. Here we identified the tree fern, *Dicksonia fibrosa*, the only one of this species seen during the field

trip. We checked divaricating shrubs for mistletoes, without success, then crossed to the true right of the river. We were impressed to see that large pines in the covenant had been poisoned, or felled. We pushed through mānuka shrubland, noting that broad-leaved species are growing up below the canopy, and in places, a dense ground-cover of ferns was developing.

We congratulate all the Waihoki

covenant owners for their foresight in reserving these significant examples of remaining indigenous forest, and for offering us the privilege of botanising them. When we have finalised the plant lists for the four covenants traversed, we will send them to the owners, and if they wish, to the QEII National Trust.

We thank Ngaire Burns for her hospitality, obtaining permission for us to visit covenants, and for taking

two of us on a quick tour of access points to the covenants we were to visit. We also thank John Burns for being our contact while Ngaire and Ron were away.

Participants: Gavin Dench, Bryan Halliday, Chris Horne, Sheena and Stuart Hudson, Brenda Johnston, Rodney Lewington, Pat McLean, Barbara Mitcalfe (scribe), Darea Sherratt, Sunita Singh.

7 May 2011: Otari – Johnston Hill Reserve

In light drizzle, we met at the entrance to Otari, next to the Wilton Bowling Club. Right from the start, Rodney's knowledge of Otari's history was a valuable contribution to the day. Published in 2010, his booklet, *Path and other location names used in the Otari Open-Air Native Plant Museum 1926 – 1965*, with its accompanying map, has a wealth of information.

Just inside the boundary we passed Cabbage Tree Lawn, the former lime-works site where seashells carted from Thorndon beach were burnt to produce lime for fertiliser. Next we made a brief stop at the site of the Wilton family's one-time fish pond, and nearby admired a recent addition to Otari's track amenity, the handsome timber seat donated by BotSoccers "AP and HP".

Down at the waterfall of the unnamed creek, described on an early map as "A" Creek, we discussed *Elatostema rugosum*, parataniwha, a russet-toned, un-armed member of the Urticaceae (nettle) family, planted there many years ago and thriving in the moist ambience. Its natural range does not extend south of northern Horowhenua. Shortly we inspected

trackside patches of another indigenous, un-armed member of Urticaceae, *Australina pusilla*, and recorded our only addition to the day's list, *Loxogramme dictyopteris* (*Anarthropteris lanceolata*), on the Circular Track.

After scroggin at the Troup Picnic Area lawn, we climbed steadily on an old track through kohekohe forest which was just beginning to display its pendulous stems of creamy, cauliferous flowers.



Kohekohe. Photo: Rodney Lewington.

Scarlet rātā, *Metrosideros fulgens*, was also an occasional highlight here. The next stop was to look at Otari's only specimen of *Nestegis montana*, narrow-leaved maire, an adult tree a few metres off the track. Uncommon in Wellington, its dark green, slightly glossy leaves are very similar to black maire leaves but are much shorter and narrower. We

lunched to the accompaniment of tūi and kākārīki song, then continued climbing, noting a lowering canopy of native species and an increasing weed presence, mostly Darwin's barberry, *Berberis darwinii*, until we reached the stile separating Otari Reserve proper, from the Outer Green Belt. The sun had appeared, so we stopped to admire a panoramic view of the city and harbour, then turned and sidled south along the newly completed Kohekohe Track, through approximately 50-50 native-advective vegetation recovering well from track construction. A short stretch of pine forest led us down to a zig-zag where trackside ferns were prolific, offering good teaching material, then it was only minutes to the cemetery where we made the acquaintance of the bronze statue of Mrs Chippy, the cat, on the grave of Harry McNeish, the ship's carpenter on the Shackleton's *Endurance*. Ten more minutes and we were at the cafe on Karori Road.

Participants: Sam Buckley, Ken and Julia Fraser, Chris Horne (Co-leader), Rodney Lewington, Barbara Mitcalfe (Co-leader/scribe), Sheena and Stuart Hudson.

EVENING MEETING REPORTS

Members' evening: 16 May 2011

We thank the following:

- Tom Hawkins, School of Biological Sciences, VUW, for describing research on the cellular mechanism behind cnidarin-dinoflagellate symbiosis between sea anemones and corals.
- Mick Parsons for talking about *Einadia triandra*, his 'Plant of the Month'.

- Richard Herbert, web master, for demonstrating our revitalised website.
- Rodney Lewington, Darea Sherratt and Chris Moore, for choosing which donated books we should auction, to add to our Jubilee Award Fund, Chris Horne for running the auction, and the members who bought books. We

raised \$380 for the fund!

- Sunita Singh for showing slides of the remarkable Wilderness Scientific Reserve, east of Te Anau.
- Barbara Mitcalfe for showing slides of plants on the Surville Cliffs and Baring Head, and close-ups of her *Carmichaelia muritai* in flower.

Chris Horne



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:..... / / 2011

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 2011 are:

Type of membership: Ordinary \$30; Country \$25; Student \$10. Group / family \$35.

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

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Alternatively you may pay direct to the Society's bank account 020536 0017812 00 and e-mail this completed form to the Treasurer at rodnejl@clear.net.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 news letters 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 / /2011

Name..... Signed..... Date / /2011

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