

Wellington Botanical Society

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



NEWSLETTER

June 2012

Previous issue: December 2011

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From the President

Wellington City Council's (WCC) Eco-City proposal to join the Zoo, the Botanic Garden, Otari-Wilton's Bush, and Zealandia, under one management structure has generated a lot of community discussion—both for but mostly against. Whatever the result of these discussions, it has been a really positive experience to see so many people so passionate about their respective organisations. This is a sign of the pride we have for these organisations, and the work they are doing—it bodes well for “eco” conservation in Wellington.

Each organisation has its own priorities and undertakes the work that best suits its objectives. But in our enthusiasm for doing this, and whether or not a new management structure eventuates, let us not overlook that by working together we can achieve even greater results.

Regarding working together, BotSoc stands out because it has no “patch” of its own—every area of native bush is of interest, regardless of owner. This is exemplified by our recent field trips. One was on 5 May to Seton Nossiter Park, a WCC reserve of regenerating forest in the Newlands / Paparangi / Woodridge area. BotSoccer and Seton Nossiter Park Working Group member, Peter Gilbert, is a local who spends much of his time in the park organising, weeding, planting and generally caring for it—a sure sign of the pride I referred to above. The Society for its part is preparing native and adventive plant lists for the Working Group, for WCC and the NZ Plant Conservation Network.

Our field trip to the Wairarapa at Easter resulted in support being shown, and native and adventive plant lists prepared, for the QEII National Trust and the owners of covenants at Highden Station, and Zabell Farms. At Carter Scenic Reserve, east of Carterton, we discussed plant identification, and management problems, with members of its working group, led by BotSoccer, Pat McLean.

Chris Moore

Articles for web site

We welcome articles to be considered for inclusion on our web site: www.wellingtonbotsoc.org.nz

Please send your article to:

Richard Herbert

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

Writing for the Bulletin

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

Wellington Botanical Society

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

BotSoc meetings are usually held at 7.30 p.m. on the third Monday of each month at Victoria University, Wellington – Lecture Theatre MYLT101, ground floor, Murphy Building, west side of Kelburn Parade. Enter building about 20 m down Kelburn Pde from pedestrian overbridge.

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 December, and at Easter.

DEADLINE FOR COPY FOR NEXT ISSUE – 20 October 2012

Articles may be edited for clarity and length

ATTENDING FIELD TRIPS AND MEETINGS

Ideas please

We welcome your ideas about:

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

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

Field trips

If you intend to join a trip, PLEASE phone the leader at least TWO DAYS beforehand, so that he/she can tell you of any changes and/or particular requirements. If you cannot ring in advance, you are welcome to join on the day.

Clothing for field trips

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

Day trip gear

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

Overnight trip gear and food

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

1 = wool, polypropylene or polarfleece as applicable.

2 Optional

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

BotSoc equipment

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

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

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

Health and safety

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

Fitness and experience

Our field trips vary considerably in the level of fitness and tramping experience required. Although our main focus is botanical, our programme sometimes offers trips which, in the pursuit of our botanical aims, are more strenuous than others. Although leaders take care to minimise risks, everyone participates at their own risk. If you have any questions about whether you are fit enough for a particular trip, please contact the leader well beforehand.

Transport reimbursement of drivers

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

Trip leaders

Please draft a trip report for the newsletter.

Meetings

Public transport to meetings

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

TO MEETINGS

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

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

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

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

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

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

FROM MEETINGS

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

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

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

Last service 10.01 p.m.

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

FIELD TRIPS AND EVENING MEETINGS: JUNE – SEPTEMBER 2012

The following programme IS SUBJECT TO CHANGE. If you wish to go on a field trip, PLEASE help with planning by giving the leader 2 days' notice before a day trip, MORE notice before weekend trips, and SEVERAL WEEKS' notice before the New Year's trip.

Non-members are welcome to come to our meetings and to join us on our field trips.

Saturday 9 June: Field trip

Te Marua Bush workbee

PLEASE NOTE: THIS TRIP IS OUR MAIN TRIP OF THE MONTH. Your support will be most welcome!

In partnership with Greater Wellington, BotSoc has been committed since 1989 to do weed control and revegetation in this important matai/tōtara/maire remnant in Kaitoke Regional Park. Our biennial workbees must continue so that we keep ahead of re-invasion by weeds, particularly around the plantings, so *please* come to help with this important work. Bring weeding and planting gear: gloves, kneeler, weed bag, and your favourite weeding and planting tools e.g. trowel, hand fork, grubber, loppers, pruning saw, jemmy. Meet at Te Marua Bush at 9.30 a.m. (250 m north of Te Marua Store and then left, off SH2 for 50 m, along the road to Te Marua Lakes, Kaitoke Regional Park. 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 June: Evening meeting

Vegetation monitoring in the Greater Wellington region

Speaker: Philippa Crisp, Team Leader, Biodiversity Monitoring, GWRC, will cover indigenous vegetation monitoring done over the years in Greater Wellington's parks and forests, and will describe proposals for future regional vegetation monitoring.

Saturday 7 July: Field trip

Makara Hill, Karori

Botanise along tracks in this regenerating forest where some native species have been planted, and intensive pest animal control done. Meet: Karori Park bus terminus 9.30 a.m. Map: Wellington BQ31. Catch no. 3 Karori Park bus Lyall Bay/8.40, Ct. Place/9.00, L. Quay Stop F opp. Supreme Ct/9.08, alight at terminus. Drivers please wait here so you can offer people on bus a lift down South Karori Rd to the Mountain Bike Park carpark. Leader: Mick Parsons 972 1148/027 249 9663; deputy-leader: Chris Horne 475 7025.

Monday 16 July: Evening meeting

Tōtara in NZ ecology and culture

Speaker: Philip Simpson, author of *Pōhutukawa and Rātā – NZ's Iron-hearted Trees*, and *Dancing Leaves – The story of NZ's cabbage tree, tī kōuka*. For the last three years Philip has been researching the role of tōtara in NZ, supported by the Friends of Turnbull Library and the Michael King Writers' Award. He will publish a book in 2013. His presentation will focus on the remaining stands of original tōtara, and ways to conserve them.

Saturday 4 August: Field trip

Three Karori reserves

Botanise regenerating forest in Burrows Avenue Reserve, Wright Hill Reserve and Birdwood Reserve. See a huge *Hoheria sexstylosa*, big *Griselinia lucida*, *Hymenophyllum flexuosum*, and some other treats. Finish at Rātā Café. Catch no. 3 Karori Park bus Lyall Bay/8.40, Ct. Place/9.00, L. Quay Stop F opp. Supreme Ct/9.08, alight on Karori Rd near Burrows Ave. Meet there at 9.30 a.m. Co-leaders: Chris Horne 475 7025, Barbara Mitcalfe 475 7149..

Monday 20 August: Evening meeting

1. Annual General Meeting

2. AP Druce Memorial Lecture:

A botanical tour of (parts of) Southland

Speaker: Brian Rance, DOC, Southland Conservancy botanist, soon to be appointed DOC Technical Advisor - Ecology, Science & Technology Group, will cover a selection of places including the northern Southland mountains, Fiordland, Catlins, lowland / central Southland, Stewart Island and the Sub-Antarctic islands. Though Tony Druce made several trips to inland Otago and northern Southland, unfortunately he did not cover Southland well, missing many iconic places. The talk will cover some of Southland's botanical gems, and some of the sites that Tony visited.

Saturday 1 September: Field trip

Horoeka St Scenic Reserve (formerly Te Oranga Whenua), Stokes Valley

With members of the local group who are helping to maintain it, botanise this wonderful recent addition to Hutt City Council's native forest reserves. Meet 9.30 a.m. at 17 Horoeka St, Stokes Valley. Drive, or catch 8.35 a.m. train from Wellington Station to Taita, transfer to no. 120 Stokes Valley bus, alight on S.V. Rd near Glen Rd, then walk to Horoeka St. To be followed by afternoon tea and a debrief from BotSoccers at Tawai School Hall (5 minutes walk from the reserve entrance) at 3 p.m. Leader: Pam Cromarty 563 6636.

Monday 17 September: Evening meeting

Speaker: Kevin Hackwell, Forest & Bird Advocacy Manager, will talk on the biodiversity and other values of the public conservation land on the West Coast's Denniston Plateau, and the results of the March BioBlitz which involved 150 scientists and volunteers. He will also provide an update on the campaign to keep this area of conservation land free of mining.

EVENTS

- *T.B.A. June. Exhibition of drawings of *Celmisia* species.* BotSoc committee member, Eleanor Burton, will display her work in the foyer of Conservation House, 18–32 Manners St, Wellington. Free entry. Ring DOC reception, 471 0 726, to find out when the exhibition will open.
- *Every Saturday. Paekawakawa Bush Reserve, Island Bay.* Weeding. 10 a.m. – 12 noon. Meet in driveway of 46a Derwent St. Ring Annette Moffat 971 6380 by 9.45 a.m. if weather doubtful. Check with her if the work will continue after July.
- *23 June, 7 & 21 July. Friends of Maara Roa – planting.* Meet at 9.30 a.m. at Cannons Creek Lakes entrance to Belmont Regional Park.
- *24 June. Queen Elizabeth Park - planting on dunes.* 9.30 – noon. From The Esplanade, Raumati South, walk Coastal Track for 500 m. Bring gloves and spade.
- *6 – 8 July. Environment and Conservation Organisations of Aotearoa NZ (ECO) Conference.* Register at Early Bird rates before 15 June. The AGM will be held on 7 July from 2.10 to 4.40 p.m.
Registration at www.eco.org.nz/what-we-do/eco-conference-2012-2.html
Day 1 & 2: Salvation Army Citadel, 8 Jessie St, Wellington.
Day 3: Turnbull House, 11 Bowen St, Wellington, and Railway West Wing, Room 102.
ECO, PO Box 11-057, Wellington. Ph 04 385 7545, eco@eco.org.nz
- *20 July. Lake Ferry, Wairarapa Moana Wetlands Park.* Planting workbee.
- *9 – 16 September. Conservation Week.* Department of Conservation.
- *29 August – 1 September. NIWA Wellington Science and Technology Fair.* Laby Building, VUW.
Sylvia Nichol, s.nichol@niwa.co.nz, 386 0396.
BotSoc offers a prize for the best project related to native plants.
- *23 – 28 November. 27th John Child Bryophyte and Lichen Workshop.* Stewart Island. The workshop is open to anyone interested in bryophytes and / or lichens, from novice amateurs to professional botanists. The aims are to gain and share knowledge of, and encourage an interest in, the mosses, liverworts, hornworts and lichens of NZ. Regular attendees are friendly and welcoming, and guidance is provided for beginners.
Accommodation: backpackers hostel, in Oban/Halfmoon Bay, or book yourself a motel. The backpackers has six double rooms, six share-twin rooms, plus dormitory beds.
To help with planning, and for additional information, contact John Steel: john.steel@botany.otago.ac.nz, indicating your interest. Do this promptly as numbers may have to be limited.
Rodney Lewington, 4 Highbury Cres, Highbury, Wellington 6012 Ph: 04 970 3142, Mob: 021 122 0040, rodnejl@clear.net.nz
- *27 November – 4 December 2012 and 9–16 January 2013.* **Tussock & Beech Ecotours Alpine Flowers tours.** Locations to be visited include: Mt Hutt, Hakatere & Korowai Torlesse

Why the Denniston Plateau is worth fighting for

Conservation Parks, Aoraki Mt Cook & Arthur's Pass National Parks, Castle Hill Kura Tawhiti & Cave Stream Reserves. Comfortable accommodation and transport, good company, spectacular locations and great botanising.
Warren & Marita Jowett, Tussock & Beech Ecotours, Staveley, RD 1, Ashburton 7771. Ph: 03 303 0880.
e-mail: ecotour@nature.net.nz website: www.nature.net.nz
Member NZ Birding Network, Canterbury Botanical Society. DOC approved.

GRANTS AVAILABLE

- *25 October. Tom Moss Student Award in Bryology.* See article in this newsletter.
- *30 October. Wellington Botanical Society Jubilee Award 2012.* See article in this newsletter.
- *30 October. The Arnold and Ruth Dench New Zealand Botanical Award.* See article in this newsletter.
Date to be advised. Community Environment Fund, Ministry for the Environment.
 - *Allison Bockstruck, ph 04 917 7400. CMF@mfe.govt.nz*
- *30 June. Wellington City Council Environmental Grants.* Criteria, application forms and other information from:
 - *Grants Advisor, WCC, Box 2199, WN 6140, 499 4444, www.wellington.govt.nz/services/grants*
- *Early 2013 - date to be advised. Biodiversity Fund.* Funding round expected in early 2013. Contact biofunds@doc.govt.nz to ask to be put on e-mail address list so you will be told when applications open. www.biodiversity.govt.nz/biofunds Applicable for projects on private land with nationally high biodiversity values. Discuss your proposed project and application with Fund staff: Susie James ph 0800 86 2020 or biofunds@doc.govt.nz
Read the Biodiversity Fund Guides and Exclusions for Funding. <http://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, Kaupapa Atawhai Group, Department of Conservation, Te Papa Atawhai, Conservation House, 18-32 Manners St, Box 10-420, WN 6143, Freephone 0800 86 2020, E-mail biofunds@doc.govt.nz*

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

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

PUBLICATIONS

1. **Footnotes.** 6/12: new conservancy model; DOC and regional councils working together; Nature Space web site; etc.
 - www.doc.govt.nz/about-doc/news/newsletters/footnotes/footnotes-june-2012/
2. **Open Space.** 82 3/12: PTA – kauri dieback; controlling magpies; fencing; weed control; new covenants: Kāpiti Coast DC - 1, Wellington CC - 2, Carterton DC – 4, Masterton DC – 8; etc.
 - *QEII National Trust, Box 3341, WN.* www.openspace.org.nz
3. **Victorious.** Autumn 2011: alumna's thesis on NZ Plantago; etc.
 - *Victoria University of Wellington, Box 600, WN.*
4. **Branchout.** Autumn: phormium yellow-leaf disease; preparing planting sites; goat control; etc.

Wellington City Council's quarterly e-newsletter for people interested in the city's parks, coast, hills, reserves and streams.

The next issue will report on sessions at the Natural Environment Forum. Subscribe at: http://www.wellington.govt.nz/services/webalerts/subscribe_enewsletters.php

 - branchout@wcc.govt.nz
- 5a. **Planting natives in Wellington.** A4 brochure.
- 5b. **Do your bit to stop weeds from ruining our environment.** A4 brochure.
 - *Wellington City Council, Box 2199, WN.*
6. **NZ Botanical Society.** 106 12/11: *Crassula* species wild in NZ; Eric J Godley; biographical sketch - Frances Mary Young Mason; *NZ's native trees* by Dawson & Lucas – review; etc. 107 3/12: Allan Mere Award – nominations by 30 June; NZ threatened indigenous plant relisting; Te Papa herbarium, WELT annual report; request for *Usnea*; *Pimelea* news; Waikato threatened plant garden update; biographical sketch – Charles-François Lavaud; *Plants of Puketin Forest* – review; etc.
 - *NZBS, c/- Canterbury Museum, Rolleston Ave, Christchurch 8013.*
7. **Trilepidea.** 97 12/11: new NZPCN Council; *Carex opinata*; *Sporodanthus ferrugineus*; Global Partnership for Plant Conservation Conference – report; guide to Global Strategy on Plant Conservation; request for tōtara species from extremes of their range; 98 1/12: book-making system on web site; *Sophora fulvida*; rare restiad wetlands – Waikato remnants and re-creations; new liverwort – *Frullania knightbridgei*; NZ's nettles; Banks Peninsula Conservation Trust; etc. 99 2/12: *Olearia quinquevulnera*; NZPCN visioning workshop; kauri dieback disease; *NZ's native trees* by J Dawson & R Lucas – review; new resource on web site – Ngā Tipu Whakaronga (plants that sustain us); Banks Peninsula's distinctive plants; new fund to protect plants; *Make your own book* poster; NZ Threatened Indigenous Vascular Plant Relisting; etc. 100 3/12: *Drymoanthus adversus*; NZPCN's successes and future; attitudes to native plants; flora mapping system goes live; marae-based plant training courses; NZ native orchid key; Property Council challenges tree protection legislation; etc. 101 4/12: discoveries on field trips; *Celmisia morgani*; recording your observations on the web site; what are NZ's most common vascular plant species?; new colony of *Spiranthes novae-zelandiae* at Otaki Forks; plant conservation on roofs; NZPCN and Kew's Millennium Seed Bank sign memorandum of collaboration; *The Island's Plants: Ecorestoration of Otamahua / Quail Island, 1997 – 2010.* Colin J Burrows & Hugh D Wilson; proposed data repository – Prehupcn vegetation of NZ; etc. 102 5/12: Kew Gardens and NZPCN sign memorandum; *Brachyglottis sciadophila*; sea spurge / *Euphorbia paralias* a threat; native plant and adventive plant images sought; *Lastreopsis kermadecensis*; new names in *Veronica*; third volume of NZ biodiversity inventory; NatureSpace web site; NZPCN's online library; etc.
 - *NZ Plant Conservation Network, Box 16 102, WN.* events@nzpcn.org.nz
8. **Auckland Botanical Society.** 2-3/12: Auckland Council weedspotter network; adding trees to the Auckland Plan; etc. 4/12: *Celmisia incana*; etc. 5/12: boneseed on Rangitoto; etc.
 - aucklandbotanicalsociety@gmail.com
9. **Canterbury Botanical Society.** 3/12: Arthur's Pass; Catlins; etc. 4/12: *Otamahua – Quail Island a link with the past* by Peter Jackson - \$22.25 incl p&p. 6/12: study of *Usnea* lichens; Denniston BioBlitz; etc.
 - *CBS, Box 8212, Riccarton, Christchurch 8440.*
10. **Botanical Society of Otago.** 65 3/12: lichenologist Dr David Galloway elected a foreign member of the Royal Society of Arts and Sciences, Gothenburg, Sweden; cultivation of *Tupeia antarctica*; *Megalaria orokonuiana* – new lichen discovered; 2011 John Child Bryophyte and Lichen workshop; Mackenzie Country; etc.
 - *BoS, Box 6214, North Dunedin 9059.*
www.botany.otago.ac.nz/bso/newsletters/latest/bso_65.pdf
11. **Manawatu Botanical Society.** 46 5/12: Marton reserves; bristlecone pines; etc.
 - *MBS, Ecology Group, INR, Massey University, Palmerston North.*
12. **Nelson Botanical Society.** 1/12: Arthur's Pass; etc. 2/12: Mt Arthur; upper Wairau; etc. 3/12: Six Mile Basin, St Arnaud Range; Rainbow Ski-field – L Rotoiti; etc. 4/12: Brook Waimarama Sanctuary; etc. 5/12: Easter West Coast trip report, incl. Denniston Plateau, Charming Ck, Gentle Annie coast, Chasm Ck, Coalbrookdale; annual report; etc.
 - *Nelson BotSoc, c/o 1/47A Washington Rd, Nelson 7010.*
13. **Rotorua Botanical Society.** 57 12/11: John Nicholls Memorial Research Grant – applications by 30/9/12; Okareka mistletoe restoration project; Tirohanga; Lake Okaro; etc.
 - *RBS, c/- The National Forestry Herbarium, Scion, Te Papa Tipu Innovation Park, Pbag 3020, Rotorua 3046.*
14. **Otari-Wilton's Bush Trust.** 3/12: plant care 1st Saturday each month; Curator/Manager's report; tree gecko research; *Spinifex sericeus* etc.
 - *OWB Trust, 160 Wilton Rd, Wilton, WN 6012.*
15. **Forest & Bird.** 343 2/12: Denniston Plateau BioBlitz; NZ Forest Accord 20 years on; etc. 344 5/12: Denniston Plateau; native epiphytes; river kaitiaki – Millan Ruka; 'conservation net losses', 'net gains' and 'biodiversity offsetting'; restoring a wetland; creating a wetland; kauri dieback disease; agapanthus, moth plant, wilding pines, pampas and other weeds; etc.
 - *Royal Forest & Bird Protection Society, Box 631, WN 6140.*
www.forestandbird.org.nz
16. **Rahui.** Winter 2012: is fracking compatible with conservation?; northern Miramar Peninsula / Watts Peninsula; etc.
 - *Wellington Branch, Forest & Bird, Box 4183, WN.*
17. **Action for Environment.** 162 2/12: guiding principles set to compromise Town Belt; etc.
 - *AfE, Box 10 030, WN 6143.*
18. **Friends of Wellington Botanic Garden.** 3/12: impact of kākā on trees; a NZ urban woodland; etc.
 - *FoWBG, Box 28 065, Kelburn, WN 6150.*
19. **Te Raekaihau Restoration Group (TriG).** 3/12: discussions with WCC staff; etc. 5/12, 9: planting; weeding, etc.
20. **Gorge Gazette.** 3/12: storm-water detention using grasses, sedges and rushes; wineberry; tradescantia leaf beetle release; etc.
 - peter.reimann@paradise.net.nz
21. **Friends of Maara Roa.** Autumn 2012: tree nursery now at Aotea College; AGM 11/7, 7.30 p.m., Tawa Union Church, 6 Elena Pl, Tawa.
22. **Friends of Queen Elizabeth Regional Park Kāpiti Trust.** 5/12: role of QE Park's dunes; planting programme for QE Park & Whareroa Farm; etc.

23. **Talisman Nursery plant list – several hundred native species and cultivars listed.** Nursery is open Tue–Sat, 1–4 p.m., or by appointment.

- *Stephen and Karen Whitton, Talisman Nursery, 135 Ringawhata Rd, RD3, Otaki 5583, Ph. 06 364-5893. Facebook: click on Talisman Nursery.*

24. **Huatoki Native Plant Nursery.** Catalogue.

- *Bill Clarkson, 4 Camden St, New Plymouth 4310. Ph 06 753 5811. wmc.np@xtra.co.nz*

25. **Otamahua/Quail Island – the island's plants.** Colin J Burrows & Hugh D Wilson. 130 pp, 74 colour photographs, map. \$35 incl p&p.

- *Canterbury Botanical Society, Box 8212, Riccarton, Christchurch 8440.*

26. **Island Invasives: Eradication and management – proceedings of international conference.**

- *IUCN - International Union for Conservation of Nature.*

SUBMISSIONS MADE

- **Society opposed tunnel and monorail.** The Society lodged submissions opposing the Department of Conservation's (DOC) intention to grant approval in principle for two companies to establish and run new transport systems connecting Queenstown and Milford Sound.

The tunnel

The 11.3-km tunnel is part of the proposed 'Dart Passage' which would shorten the return coach journey between Queenstown and Milford Sound/Piopiotahi from 9 hours to c. 4 hours. The tunnel would connect the end of the road around Lake Wakatipu and the Hollyford Road.

The Officer's Report on the application was very thorough. We disagreed, however, with one of its main conclusions – that any significant adverse effects resulting from the construction and use of the tunnel and the portals could be managed to the point where they would be minor.

Our main botanical concern was a wetland in the Hollyford Valley which the Officer's Report described as being large, of high conservation value, and containing nationally rare and distinct vegetation associations and habitat types. The report acknowledged that any change in the hydrology of the wetland would have potentially severe and adverse environmental effects on it. Nevertheless, DOC envisaged being able to impose a concession condition that would require the concessionaire to maintain its existing hydrological processes. We suggested this may be both unrealistic and unenforceable. We also argued that the tunnel would be incompatible with DOC's commitment and obligation to preserve the integrity of *Te Wāhipounamu* – the South West New Zealand World Heritage Area. Granting of World Heritage status by the IUCN confirmed that the area is one of the world's great wilderness areas.

The monorail

We also opposed granting of approval in principle for a concession to develop a monorail and mountain bike track in Snowdon Forest and Fiordland National Park, but not quite so vigorously. Overall, we did not accept DOC's view that the final design stage (comprising preparation of final route location specifications and plans) would reasonably and practicably avoid, remedy or mitigate the significant adverse effects described in the application.

Our key concern was the potentially irreversible ecological effects, including edge effects, of fragmenting a large ecological mosaic into c. 150 smaller blocks, many of which may be only 200 m x 200 m. Other negative effects we mentioned included the potential for invasions of mammalian pests and weed species along the monorail route and the mountain bike trail,

and the rarity of some of the non-forest ecosystems that would be disturbed, especially the wetlands and tussock grasslands.

We also acknowledged some positives, including:

- the improvement in the quality of the visitor experience for tourists who had been persuaded that they could stay in Queenstown, because Milford Sound and Fiordland didn't warrant more than one day on their itinerary
- the opportunities for more people to see this special part of NZ, particularly people unable to walk or cycle through it
- the additional safety provided by the mountain-bike trail for people on the monorail if it ever had to be evacuated.

- **Proposed Game Animal Council Bill.** A bill proposing the establishment of a Game Animal Council is now before a Select Committee. It is the result of the United Future Party's 'confidence and supply' agreement with the Government. United Future believes that deer, thar, chamois and wild pigs should be recognised as valued introduced species rather than as pests. The bill sets out to give these animals "their deserved status as game animals".

The bill worries the Society because many indigenous plant species are highly palatable, and under intense browsing pressure, can be eliminated from their communities. We have seen first-hand in many parts of NZ, the damage caused by mammalian herbivores to our indigenous plants, forests and sub-alpine ecosystems, including the soils and scree that support them.

The main functions of the proposed Game Animal Council would be to provide advice to the Minister of Conservation, and to undertake management functions to improve the hunting experience of 'herds of special interest'. In our submission we opposed the establishment of the proposed Game Animal Council. The Treasury and DOC have said that a ministerial advisory committee under the Wild Animal Control Act would be more appropriate.

We did, however, acknowledge the merit of improving opportunities for hunting on conservation lands, provided that habitat protection remains the overriding consideration. With DOC stretched for resources, NZ needs to find new ways of controlling the mammalian herbivores which are causing so much damage to our natural heritage. The solution may lie in collaborative, science-based, approaches which enable those who value hunting to play more active roles in protecting natural ecosystems on public conservation lands from deer, chamois, thar and pigs. Goat control is a related issue and we wondered why goats were not included in this bill.

Greater Wellington's draft Long-term Plan. Greater Wellington produced a very clear plan. By opposing the proposal to spend \$34 million on an integrated electronic ticketing system for trains, buses and ferries, we were able to suggest more funding for three other proposals we particularly liked:

- expanding pest control programmes
- managing regional parks
- sustainable land management.

GW intends to expand its sustainable land management work to dairy farms on lowland areas to improve water and soil quality.

- **Wellington City Council's Eco-City proposal.** Wellington City Council (WCC) is considering changing the governance and management structure for Zealandia / Karori Sanctuary and the city's other natural attractions—Wellington Zoo, Otari-Wilton's Bush and the Botanic Garden. The Eco-City proposal refers to one of four options to emerge from a Council Working Party set up to consider how Council should respond to a request from the Karori Sanctuary Trust for more ratepayer-funding for Zealandia.

We are concerned about the implications for Otari-Wilton's Bush, because none of the proposed options appear to be beneficial. Placing Otari-Wilton's Bush under the proposed Eco-City structure may not be a particularly healthy place

for Otari over the next few years, as Eco-City attempts to resolve Zealandia's financial issues. Aspects of the alternative, remaining within Council's Parks and Gardens business unit, are also disheartening. Despite approving the statutory Management Plan (2007), and the Landscape Development Plan (2010), WCC is apparently under so much financial pressure that it cannot find any capital funding to implement these plans. Council cancelled the capital funding previously allocated for improvements at Otari during 2011/12. Even more disturbing, Council has not allocated any capital funding for Otari in its draft Long-Term Plan 2012-2022.

Bev Abbott, Submissions Co-ordinator

Jubilee Award 2012 – Applications sought

The Wellington Botanical Society invites applications for an Award of up to \$2,600 to encourage and assist applicants to increase knowledge of New Zealand's indigenous flora, and to commemorate the Society's 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, or by e-mail to bj_clark@xtra.co.nz, by 30 October 2012.

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

- the applicant's name,
- postal address, telephone number and e-mail address.
- 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 2012.

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.

Applications sought for the Arnold and Ruth Dench New Zealand Botanical Award

As members of the Wellington Botanical Society, Arnold and Ruth Dench derived much personal satisfaction from participating in many of its activities. The passing of Ruth in 2007 and Arnold in 2010 brought to an end their long and active association with the Society. Arnold and Ruth grew and propagated native plants, concentrating on alpenines, which thrived in their windy garden in the Wellington suburb of Newlands. Together, they propagated cuttings and seed provided by botanists such as Tony Druce. These they gladly made available for study. Today, their plants can be found in Otari-Wilton's Bush, Percy Scenic Reserve and many private gardens.

Alison Dench, Arnold and Ruth's daughter, has generously made available an annual award of \$1,000 in memory of her parents. The Award aims to enhance understanding and awareness of NZ's indigenous flora including interactions between indigenous flora and invasive species (flora or fauna). The Award will be administered by the Wellington Botanical Society Inc.

The Award is available to NZ citizens and others who are working or studying botanically oriented subjects in NZ. The Award may be to:

- A professional botanist or plant ecologist at a NZ university, the Department of Conservation, or a Crown Research Institute.
- A university student, ideally pursuing post-graduate research; or
- A horticultural apprentice or intern studying for a relevant horticultural qualification

It will be granted for: fieldwork; artistic endeavour; publication; research; propagation or cultivation of NZ native plants for educational purposes and/or other studies or projects which promote the better understanding of NZ's

DOC Wellington Visitor Centre

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

Conservation House,
18–32 Manners St

- Track, hut, conservation information
- Kapiti Island visitor permits
- Hut tickets, backcountry hut passes
- Hunting permits

Open: Mon–Fri 9 a.m. – 5.00 p.m.
Sat 10 a.m. – 3.30 p.m.

Tel: 04 384 7770 Fax: 04 384 7773

E-mail: wellingtonvc@doc.govt.nz

Web: www.doc.govt.nz

New Zealand Government

Department of
Conservation
Te Papa Atawhai

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. se 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 Inc., PO Box 10 412, Wellington 6143, or by e-mail to bj_clark@xtra.co.nz, by 30 October 2012

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

- the applicant's name
- postal address, telephone number and e-mail address
- any relevant position held and, where relevant, the name and contact details of the supervisor or trainer under whom an applicant is studying or working
- a summary statement of the applicant's accomplishments in the field of botany or horticulture – no more than one page
- an outline and timetable for the project for which the Award is sought
- a budget for the project as a whole, detailing the proposed use of the Award funds.

Selection

The Award will be made to one applicant per year selected by a subcommittee nominated by the general committee of the Wellington Botanical Society. This subcommittee will consult with Alison Dench in making the Award. Applicants will be informed of the results in writing, by 24 December 2012.

The subcommittee may reserve the right to make no Award if no suitable applications are received.

It is a requirement of the Award that a report be made to the Wellington Botanical Society on the outcome of the supported project, and that any resulting report or publication acknowledge the financial support of The Arnold and Ruth Dench New Zealand Botanical Award.

The successful applicant will be required to provide, at an agreed time, an account of their expenditure of Award funds.

The name of the Award recipient, the value of the Award, and a synopsis of the funded project will be published in the Annual Report of Wellington Botanical Society.

Rodney Lewington, Treasurer

Tom Moss Student Award in Bryology – Applications sought

Tom Moss was an active member of the Wellington Botanical Society for many years, and was a participant in the very first John Child Bryophyte Workshop in 1983. To commemorate his name, his contribution to New Zealand botany, and his particular interest in bryology, a Trust Fund was established following discussion at the 2006 John Child Bryophyte Workshop. It is administered by the Wellington Botanical Society. The *Tom Moss Student Award in Bryology* provides a small annual prize for the best student contribution to New Zealand bryology.

The 2012 Award will be made at the John Child Bryophyte Workshop to be held in November on Stewart Island. Contributions that would qualify for the Award include:

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

Only one application per student will be accepted (i.e. either a presentation or a publication). The paper can be published, or accepted for publication, or a significant unpublished report. This should be published or written in the twelve months immediately before the Workshop and submitted for judging by 25 October 2012 (see below). It is not necessary to attend the workshop where a paper is submitted for consideration.

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

An Award of \$400 will be made by a panel of three judges attending the Workshop and appointed by the Wellington Botanical Society. The panel may reserve the right to make no award if there are no suitable contributions.

Publications for consideration should be submitted with a covering letter by 25 October 2012 to: Tom Moss Student Award, Wellington Botanical Society, PO Box 10 412, Wellington 6143.

Students intending to make a qualifying presentation at the Workshop should indicate this when they enrol for the Workshop.

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

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

Trees on stamps



NZ Post's recent issue of stamps featured:

- pōhutukawa – \$0.60
- cabbage tree – \$1.20
- kōwhai – \$1.90
- nikau – \$2.40
- mānuka – \$2.90

*Simon Alliso
NZ Post*

Grant's Bush Protected

A conservation covenant between AgResearch Ltd and DOC was registered on 12 April 2012 over 7.5 ha of land at Wallaceville, Upper Hutt. It is under certificate of title WN47A/259. The covenant came about under the Government's Land of Potential Interest programme, whereby the chief executives of SOEs and CRIs consent to protect significant conservation values before disposal of land. The covenant is in two parcels:

- Grant's Bush (3.0 ha) being a roughly square-shaped block of bush comprising black beech and podocarps, with a dense understorey of native shrubs. Weeds, mostly on the fenced margin, include hawthorn, sycamore, barberry, walnut and conifers.
- The second partly-fenced block, to the south end of the property, near Alexander Road, is triangular (4.5 ha) and comprises mature and semi-mature tōtara as generally standalone species, sited on the floodplain. The covenant is managed by DOC's Kapiti Wellington area office.

Heritage covenants have been negotiated by the NZ Historic Places Trust over the former veterinary laboratory building and an associated furnace structure.

David Bishop
Wellington Hawke's Bay Conservancy
Department of Conservation
dbishop@doc.govt.nz, ph 472 5821.

Natural Environment Forum

Wellington City Council invited people who receive the e-newsletter, *Branch Out*, to attend the inaugural Natural Environment Forum on 3 May, at the ASB Sports Centre, Kilbirnie.

Members of the city's many revegetation and restoration groups were updated on progress on natural environment matters, and asked to comment on WCC's work to date, and to discuss our future challenges and opportunities. The comments made will feed into the 2012-2022 Long-Term Plan (LTP) process.

After an introduction by Her Worship the Mayor, Celia Wade-Brown, participants broke into groups for workshop sessions:

1. **Biodiversity Action Plan.** The plan is its fourth year of implementation. We were given an update on progress, and key projects for the future, and asked to comment on WCC's progress in implementing the plan.
2. **Tracks and walkways.** A staff member described progress with implementing many projects in the Open Space Access Plan. Participants suggested other projects for WCC to consider.
3. **Capital Spaces.** *Capital Spaces, Wellington's Open Space Strategy* has been guiding work in Wellington's reserves network for many years, but it is now time for a review.
4. **Eco-City Council-Controlled Organisation (CCO)** – a new CCO has been proposed combining Zealandia, Wellington Zoo, the Botanic Garden, and Otari-Wilton's Bush. Participants had the opportunity to learn more about this proposal, and three other options, and comment on each.

For further information on the forum, contact Wellington City Council, info@wcc.govt.nz

Percy Scenic Reserve

Plant news

Recent acquisitions to the collections include *Plantago* spp. studied by Heidi Meudt, Te Papa. These were kindly donated after the preliminary results for the *Plantago* revision were finalised.

We also received male cutting material of *Atriplex cinerea* from Roger Gaskill, DOC Motueka. This was propagated and will be planted, with female stock, in the entrance coastal garden just off Dowse Drive. Another planting will be made in the street gardens on Petone Foreshore.

Some alpine seed, collected on a botanical excursion I took with the University of Canterbury's summer school at Cass, has recently germinated. Once established, these plants will be included in the greenhouse collection, and if suitable, the Druce Alpine Memorial Garden.

More Charleston gentians, *Gentianella scopulorum*, are ready to send to Westport. This species is still classified as Nationally Critical, and Percy SR has been growing them every year, with moderate success. The trials last year to break seed dormancy were successful, although not much germination time was saved, compared with fresh seed.

General news

The new Downer Super site at Porirua was officially opened on 3 March 2012 by PM John Key, and attended by top Downer executives. The site was available to staff in mid-January, and early landscape plantings were completed in November.

There is room available this winter to plant *Olearia gardneri*, and a small entrance garden of threatened species. Once the other areas have become more established, Percy SR will provide more threatened species to be included in the landscape design, with some interpretation to follow, for the benefit of the workers on site. This will be beneficial as an insurance site for some of our rarer treasures.

There has been a recent outbreak of vandalism and graffiti with damage occurring at the turning circle at the end of the Percy SR car park, and damage to 5-year-old whau, *Entelea arborescens*, near the detention dam bunding. Luckily, these areas were secondary plantings, so only a small amount of propagation will be required to replace the damage.

Jill Broome
Plant Collections Supervisor
Percy Scenic Reserve

Dactylanthus flowering

It is with much excitement that we confirm the successful establishment of the root parasite, *Dactylanthus taylorii*, in the Threatened Plant Garden at the University of Waikato. Seed was sown in 2007 and we found that flowering occurred this summer. There will be more details in the next Waikato Botanical Society newsletter. Please see the link to the University press release:

www.waikato.ac.nz/news-events/media/2012/05rare-plant-blooms-on-waikato-university-campus.shtml

Catherine Beard
Waikato Botanical Society

Greater Wellington Biodiversity Department

Manager: Tim Porteous

Biodiversity department's function and structure

The Biodiversity department was formed in 2010, a process that amalgamated programmes from across the Council. The new structure of the department aims to achieve positive biodiversity outcomes through increased focus on:

- Co-ordinating management of high value biodiversity areas
- Providing input into policy and planning processes
- Increasing community engagement in priority areas
- Strategic stakeholder engagement

The department is largely operational with the bulk of its allocated budget being spent on managing the threats to indigenous biodiversity in areas with high biodiversity value. These threats include introduced pest plants and animals, grazing stock, and pressures from land use.

The department consists of three teams. Each team is responsible for delivering projects as part of wider work programmes.

Strategy and Systems Team

The team acts as the primary point of contact for biodiversity policy advice and biodiversity issues beyond specific high value sites or areas. The team will provide input into statutory and non-statutory processes relating to biodiversity. "Position papers" on key biodiversity issues (e.g. cumulative impacts and ecosystem services) to inform the department and the wider organisation will be prepared.

Harley Spence	Team Leader
Jennie Marks	Senior Biodiversity Advisor
Hadyn Butler	Biodiversity Advisor

Implementation Team

The purpose of the Implementation Team is to co-ordinate the management of high value biodiversity areas across the region. Management activities will focus on maintaining and restoring the biodiversity values on sites within such areas. Plant and animal pest control, legal protection, and the exclusion of stock, are key management tools that require continuing investment of Council resources.

The Implementation Team's other key role is to provide high quality technical site-specific biodiversity advice.

The team's projects are carried out under the umbrella of two work programmes:

- Managing areas with high biodiversity value
- Site-specific biodiversity advice

Alison Davis	Team Leader
Anna Burrows	Biodiversity Coordinator
Kim Broad	Biodiversity Coordinator
Tim Park	Biodiversity Coordinator
Robyn Smith	Biodiversity Coordinator
Mike Urlich	Biodiversity Coordinator

Newsletter by e-mail?

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

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

Community Projects Team

The purpose of the Community Projects Team is to actively engage the local community in priority biodiversity areas, support ecological restoration across the region, and deliver key biodiversity messages to target audiences.

Richard Romijn	Team Leader
Jo Fagan	Community Projects Advisor
Toni de Lautour	Community Projects Advisor
Janey Hilford	Community Projects Advisor
Richard Morgan	Community Projects Advisor
Warren Field	Community Projects Advisor
Tessa Roberts	Community Projects Advisor

Restoration Day 2012

Getting the best results from your planting project was the theme of Restoration Day 2012, organised for conservation groups by DOC, Greater Wellington Regional Council (GWRC), and territorial authorities, and held at Southward Car Museum and Greendale Reserve Paraparaumu.

John Sawyer, BotSoccer and former Wellingtonian, now Principal Specialist, Natural Heritage, Auckland Council, gave the keynote address. In his talk, *Beyond the grief – Opportunities for rebuilding ecological resilience*, he discussed the phases we go through in our grief at the loss of so much in our environment—denial, anger, bargaining, depression and acceptance. However, with optimism, he looks at the work groups are doing:

- maximising support for restoration
- building a sustainable team which is acting locally
- securing the site
- encouraging young people to take part
- selecting and sourcing the right species.

The workshops

- Sourcing seeds and plants – Matt Ward (Kapiti Coast District Council, KCDC)
- Ecosourcing from nearest stands of mature trees – Trevor Thompson (QE2 National Trust, Wairarapa)
- Propagation – Jonathan Bussell (Hutt City Council);
- Practical advice for nursery and home propagation – Laureen Bamford (WCC Berhampore Nursery)
- Pest plant control – Mike Urlich (GWRC)
- Advice on control methods, natural and chemical – Darryl Kee (GWRC)
- Pest animal control – Colin Giddy (DOC)
- How to reduce, eradicate or isolate pest animals – Lisa Clapcott (DOC)
- Primary planting – Rob Cross (KCDC)
- Good planning, what, where and how to plant for success – Rob Craven and Ross Jackson (GWRC)
- Secondary planting – Myfanwy Emeny (WCC)
- Suitable plants, sites and volunteer management – Peter Russell (Biodiversity Consultant)
- Pest monitoring – Jack Mace (DOC)
- Tips and techniques for effective monitoring of pest species – Bernard Smith (Zealandia)
- Monitoring your plants – Owen Spearpoint (GWRC)
- Keeping track of planting using technology, transect lines, vegetation plots and photo points – Matt Robertson (WCC).

The local environment, hospitality, fine weather, and enthusiastic human input made for a rewarding day out.

Priscilla Isaacs and Rae Collins

Rimutaka Range – Aerial Possum Control

The plan

The Animal Health Board (AHB) and Greater Wellington Regional Council (GWRC) are planning a joint aerial possum control operation in the Rimutaka Range.

Area

The proposed operational area covers c. 28,000 ha of the Rimutaka Range and surrounding land. The project includes the bush-clad hills surrounding the Kaitoke Basin and extends to the Rimutaka Summit. South of SH 2, the project includes Pakuratahi Forest, and extends into the Wairarapa, including the Rimutaka Rail Trail and up to Pigeon Bush. The project extends south along the Rimutaka Range to Ocean Beach, and includes the Wainuiomata / Orongorongo Water Collection Area (WCA). These areas have all undergone aerial possum control operations in the past, the last in 2007.

Why is it being done?

- To protect cattle and deer herds on surrounding properties from bovine tuberculosis (TB)
- To protect the health of the extensive tracts of significant indigenous forest in the Wainuiomata / Orongorongo WCA, to ensure the continuation of a high-quality water source for treatment and supply.

Animal Health Board

The AHB's objective is to eradicate bovine tuberculosis (TB) from NZ. Bovine TB is an infectious disease that affects domestic cattle and deer herds. In NZ, the main carriers and transmitters of TB to livestock are possums. In order to eradicate bovine TB, possum numbers must be kept extremely low—about one or two animals / 10 ha. Monitoring in the Rimutaka Range during 2011 indicated that possum numbers are up to five times the level required for effective TB control. It is vital to minimise the risk of TB-infected possums sustaining the disease in their own populations, then passing it to farmed cattle and deer.

Greater Wellington Regional Council

GWRC's objective is to maintain a healthy and intact indigenous forest catchment to protect a high-quality water source for treatment and supply. The roots of the trees, shrubs, lianes, ferns and herbaceous plants bind the soil, and help keep sediment out of the water, making it easier and less expensive to treat. Possum browse damages our forests and makes them less effective at filtering our water.

Possums are targeted in the water collection area because they carry diseases such as bovine TB, and transmit organisms such as giardia and cryptosporidium, which could contaminate the water supply and cause serious illness. International best practice advocates effective catchment management as part of a multi-barrier approach in guarding against contaminated water supplies. The Wainuiomata/Orongorongo WCA provides about 20% of the tap water for the Wellington metropolitan area.

Planned control method

Non-toxic, tan-coloured cereal pellets will be distributed in the operational area by helicopter 1–2 weeks before

the operation. This “pre-feed” gives possums a taste for the pellets and overcomes bait shyness. Toxic, green-coloured cereal pellets, 20 mm in diameter and 30–40 mm long, containing biodegradable sodium fluoroacetate (also known as 1080), will then be distributed in the operational area by helicopter at the rate of 2 kg/ha (roughly one bait /50–60 m²). GPS navigational equipment will be used to ensure the accuracy of bait placement. This method has been very successful in controlling possum numbers to extremely low levels.

Why is this method chosen?

Sodium fluoroacetate is particularly suited for this operation, given the size of the area to be treated, and the rugged nature of the terrain of the Rimutaka Range. It is a highly effective, cost-efficient and safe method of controlling non-native pests, particularly possums, rats and stoats. In June 2011, the Parliamentary Commissioner for the Environment strongly endorsed its continued use in NZ.

Biodiversity benefits

Possums eat a wide range of native plants, and prey on birds, eggs, reptiles and invertebrates. Possums can damage or kill trees in the forest canopy, e.g. emergent *Metrosideros robusta* / northern rātā, and dramatically reduce populations of threatened plants e.g. the mistletoes, Kirk's tree daisy / *Brachyglottis kirkii*, raukawa / *Raukaua edgerleyi*.

Possum control has the additional benefit of delivering a “triple hit” by also killing rats and stoats that eat the carcasses of poisoned possums. Reducing the numbers of these three introduced predators protects native plants and birds. This approach is similar to that used in the combined AHB and DOC ‘Project Kaka’ operation in the Tararua Range in November 2010.

Risks?

There is no risk to public drinking water during or after the operation, because 1080 is highly soluble in water and biodegradable, so does not persist in water or soil.

Precautions to be taken

Warning signs will be erected at all main access points to the operational area. Everyone must follow the cautions on these signs. There is no health risk in using this area if they are followed.

Further information

Graeme Butcher
Greater Wellington
Regional Council
PO Box 41
Masterton 5840
Ph: 06 378 2484
graeme.butcher@gw.govt.nz

Debbie Viner
Animal Health Board
PO Box 9078
Palmerston North 4410
Ph: 06 353 2712
debbie.viner@tbfree.org.nz

For more information on how and why sodium fluoroacetate is used in NZ, please visit www.1080facts.co.nz

WCC's street plantings

Berhampore Nursery and other Parks and Gardens unit staff continue to do impressive plantings of native species. A fine example is on the broad median strip between Kent and Cambridge terraces, opposite the Central Fire Station. There, under a canopy of kōwhai, thrive scleranthus on gravel mounds, Poor Knights lily, divaricating coprosmas, including *C. acerosa*, speargrass, sedges including pīngao, the grass *Anamanthele lessoniana*, rushes, tī kōuka, and herbaceous species.

In Northland, at kerb extensions, staff have made effective use of fierce lancewood, Marlborough rock daisy, bidibid, *Libertia perigrinans*, dianella, mānuka, a carex and an astelia.

We would welcome reports from readers of other sites in the Wellington metropolitan area where local authority staff have planted native species, to display the wide range of growth habit, foliage and colour available in our flora.

Editor

Usnea specimens sought

BotSocers are asked to send samples of old man's beard lichens, *Usnea*, to Hannah Buckley, Senior Lecturer in Ecology, Lincoln University, who has a PhD student working on the genus. If you have a collection permit, and can help, please put the specimens in folded paper, or a paper bag, and labelled with their location and the substrate they were collected on. Send them to:

Hannah Buckley, Ph.D.

*Department of Ecology, P O Box 84, Lincoln University,
Lincoln 7647, Christchurch.*

*ph 03 321 8433, fax 03 3258 3885, Hannah.Buckley@lincoln.ac.nz
www.lincoln.ac.nz*

<http://ecolincnz.blogspot.com/> (Ecology Department research blog)

Wellington City Council Berhampore Nursery Open Day: Saturday 21 April

About three times a year BotSoc attends a public event with our display-board and makes a concerted effort to, as our purpose states, 'advocate for the conservation and protection of NZ native plants', and 'foster an interest in NZ native plants'. Our approach is to mount a display of photographs on our portable display-board that indicate what we stand for, and what we do as a society. A member or two attends the 'stand' to answer questions from the public about native plants. It also may serve as a first stop for people who may consider joining BotSoc, though, to date, this has not been a significant role for the display. Pamphlets about BotSoc, and the programme of field trips and meetings, and our business card, are liberally distributed on such occasions. We also refer people to our web site for more information. In the past year we have had our display-board at Otari Open Day, the Home and Garden Show, and Berhampore Nursery Open Day. When not used on such occasions, Otari-Wilton's Bush allows us to install it at Te Marae o Tane visitor centre, 160 Wilton Road.

More BotSocers needed to attend

Unfortunately, it is hard to find people who are able to spend a few hours attending such days to represent BotSoc. At Berhampore there was only one member, who kindly stayed for the day. The committee would very much like to hear from any others who are happy to be contacted about attending such days on behalf of BotSoc. If you would like to help, please contact Mick Parsons 972 1148, or Sunita Singh 387 9955. Thank you!

The well-attended WCC Berhampore Nursery Open Day was a wonderful chance to show off this magnificent and beautifully kept asset that supplies Wellington's parks and public gardens. Wellington's road verges, median strips, and public gardens, in recent years have begun to showcase NZ native plants from its region better than many other cities in New Zealand. Many of those who attend such open days have little knowledge of the native plants of the Wellington region, and this year's theme of 'Coasting along' sought to introduce people to native coastal plants, many of which are endangered.

*Mick Parsons
Vice-president*

No Latin – no worries

An article in the *Guardian Weekly* of 27 January 2012 may be of interest to botanists:

Botanists no longer required to use Latin

For at least 400 years, botanists across the globe have relied on Latin as their lingua franca. But all that changed this month. Scientists say plants will keep their double-barrelled names, but the requirement that new species be described in the classical language has been dropped. Instead, they have agreed to allow botanists to use English. In their scientific papers, they can still describe a newly found species in Latin if they wish, but most probably won't. "It was heading toward extinction," said Warren Wagner, of the Smithsonian Institution's botany department. Globally, scientists discover 2,000 new species per year. As many as one in five of the world's plant species have yet to be identified. *The Washington Post*.

There's a longer article: www.dailymail.co.uk/sciencetech/article-2077542/Plants-longer-given-Latin-classified-die-out.html

Jill Goodwin

NZ's pre-human vegetation

We propose to create a data repository for NZ pre-human vegetation data. At this stage we are interested in gaining comments and suggestions from potential users of such a resource, about what features they would like incorporated. The details of the proposal are outlined below, along with a link to an anonymous survey through which you can leave your comments.

www.landcareresearch.co.nz/research/ecosystems/past_env/index.asp

Jamie Wood & Janet Wilmshurst, Landcare Research

Nancy Jean Williams 1921 - 2012

Nancy Williams died on 18 April in her 92nd year and 70th year of her marriage to Ted.

Nancy has been a life member of the Society since 1971. Only her failing health led to her to not being an active member of BotSoc in the last decade. Even so, both Nan and Ted have taken a continuing interest in the activities of the Society. We offer our condolences to Ted and his family. An obituary will appear in the next newsletter.

Rodney Lewington, Darea Sherratt and Carol West

Karori Tunnel eastern portal planting

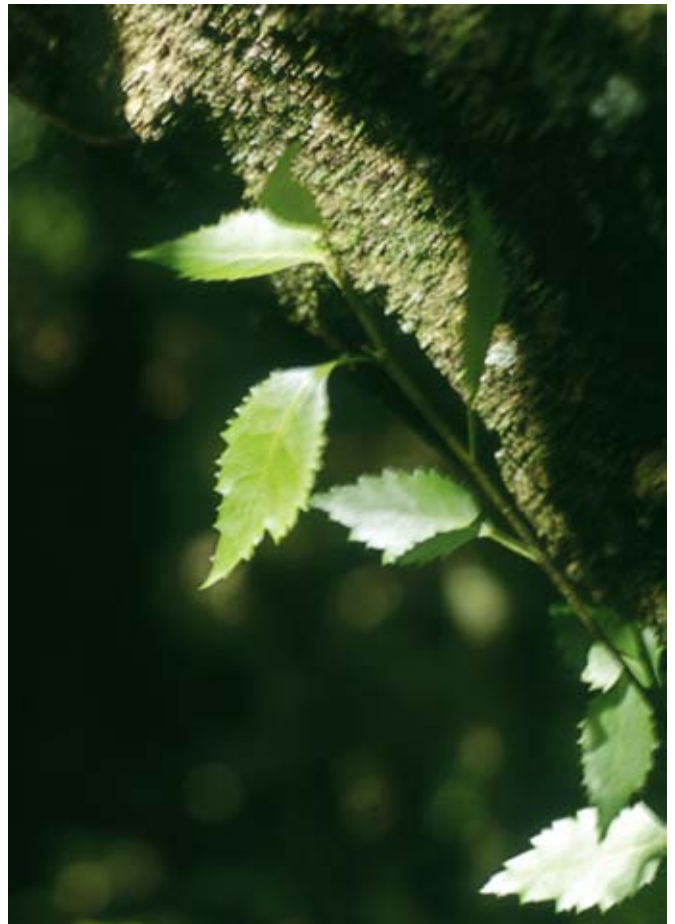
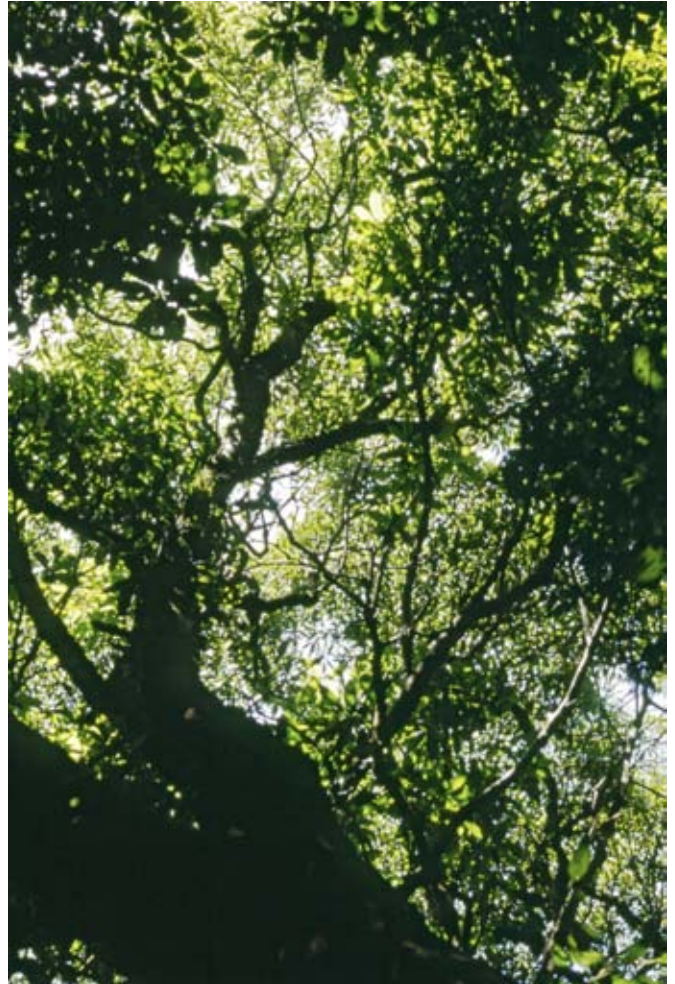
By day and by night, work to strengthen the tunnel's portals is progressing. Despite my earlier fears of serious, unavoidable damage to the indigenous plantings which we began in 2002 above the tunnel, it seems there may eventually be some benefits. So far, the well-grown, planted trees such as kōwhai, seem not to have been damaged. A temporary, timber platform about 3 m x 4 m, supported by scaffolding, has been constructed high above the tunnel, at the base of the vertical crib wall below Raroa Cres. Previously a dense tangle of uncontrollable, inaccessible weed shrubs, grasses and trees sprouted here, but most of these have been destroyed in the course of tunnel-strengthening activities. Eventually this could offer an opportunity for Council to re-plant appropriately and keep the area clear of invasive weeds..

Barbara Mitcalfe

Some surprises in Burrows Avenue Reserve

On a Tararua Tramping Club botany trip in the reserve last Spring, I noticed scattered, yellow-green, willow-like foliage high above, sunlit against a blue sky, and too far away for me to positively identify. Wondering how a large willow tree could have been allowed to survive in this well-used indigenous ecosystem, I went off-track to look for its origin and found five connected trunks arising from near ground level, each measuring c. 30–40 cm diameter, one of them dead. About 10 m long, and spreading widely, they disappeared into, and emerged above, the surrounding canopy of mixed indigenous species. The site was poorly lit, and the dark-grey bark was unfamiliar, so I tried to get a specimen of the one leafy epicormic shoot just within reach. Such was its resistance that a thin strip of lacy inner bark came off with it. This, and the sharply serrate, lanceolate leaves, confirmed this large old multi-trunked tree to be *Hoheria sexstylosa*, a species now uncommon in Wellington City's remaining forests. The most common lacebark species here is *Hoheria populnea*, naturally occurring from Waikato northwards, a garden-escape which has unfortunately naturalised far and wide. The remarkably large specimen of *Hoheria sexstylosa* in Burrows Avenue Reserve may well date back to an era before the reserve was gazetted. Come to see this ancient tree, and other surprises, on our *Three Karori reserves* field trip on 4 August.

Barbara Mitcalfe



The large *Hoheria sexstylosa* at Burrows Avenue Reserve. Photos: Barbara Mitcalfe.

TRIP REPORTS

3–4 December 2011: Mangatoetoe Valley, Wairarapa – map BR33

Mangatoetoe Stream's valley has a wide variety of habitats for different forms of plant life. The area has been grazed, but we saw only a few sheep in the lower valley. 4WD and quad-bike access up the valley means that numerous weed species occur. We were instructed to keep an eye out for hieracium (*Pilosella officinarum*) which had been seen here. Diligent work by GWRC and DOC seems to have been eradicated it, at least in the area we visited.

We made a late start in warm, fine weather, with little wind to relieve the heat. The first species of interest was in the car park where the seldom-seen (at least by the present company) *Pelargonium inodorum* was flowering. It was also seen further up the valley. It was not possible to visit all the habitats, so cliff faces and rock outcrops were the main area of botanising on the way up the valley. *Brachyglottis greyii*, and the native fuzzweed (*Vittadinia australis*) were in flower. The area was drier than during a previous visit at a similar time, so most orchids were in seed, apart from *Thelymitra longifolia* agg.

The emblematic plant of the Wellington Botanical Society, Jersey

fern (*Anogramma leptophylla*) was almost past its best, except for a small patch growing behind a screen of shrubbery, so less exposed to sun and wind. Other species of interest that people were keen to see were *Coprosma virescens*, the native carrot (*Daucus glochidiatus*), which is locally very common, and the small maidenhair fern (*Adiantum aethiopicum*).

Botanising on the return back down the valley was less of a priority but despite this, we found a plant with a rating of 'Nationally Critical', *Crassula peduncularis*, growing in an "ephemeral wetland", really just a large puddle that dries out in the summer, on an offshoot of the 4WD track. This brings to four the number of native crassula species (5 in total if you count the exotic *C. decumbens*) found in this valley. This serves to illustrate the somewhat serendipitous nature of the discovery of a plant like this. Too soon and you have a muddy puddle to walk around or drive through, and probably in another week there would be just dried out material of little interest.

Of some concern is the amount of nodding thistle (*Carduus nutans*),

seen, mainly along the 4WD track. Of note was the number of clover species found in the area. To date there are eleven species, including the uncommon and unusual species, narrow-leaved clover (*Trifolium angustifolium*).



The 'Nationally Critical' *Crassula peduncularis*.
Photo: Jeremy Rolfe.

This is very interesting area of which we saw only a small portion. Another trip at another time of the year would be in order.

Pat Enright

20–28 January 2012: Taranaki

Day 1, 20/1/12: Gordon Park Scenic Reserve

En route to Taranaki, we were led by the Whanganui Museum Botanical Group through this reserve, a swamp forest remnant, near Whanganui. At the carpark we were intrigued with the divaricate plants nearby such as *Melicope simplex* and *Melicytus micranthus* on the tawa-titoki bush edge. Emergent kahikatea were small, indicating logging activities last century. While having lunch, we were told the history of the reserve, from its preservation in the 1850s as part of a farmed area, and its reservation in the 1920s by the city council, with help from bequests. While noting many shrubs and lianes on the plant list, we went to sites rich in dicotyledonous herbs among the damp, partly-shaded interior. One

site had an area of *Gratiola concinna*, a herb unfamiliar to us. Then we saw patches of *Mazus novaezeelandiae*, *Cardamine* sp., *Callitriche muelleri* and *Stellaria parviflora* – good training in identifying herb species!

The current status of the reserve is a credit to the group advocating for its care. Locally sourced plantings in gaps and around the edges are backed up by extensive hand-weeding at regular intervals. Spraying of some weeds is managed by DOC, although the care group would like to see it receive more intensive care.

Waverley Beach

After an introduction to landforms and local wāhi tapu at Ngukumarū, we went to Waverley Beach, viewing the dune lakes en route, and Waipipi Stream, once the powerhouse of

ironsands mining, and now supplying new housing subdivisions, and dairy units. Though small in area, the coastal turf of Waverley Beach, with its base of *Zoysia minima*, was a wonderful introduction to Taranaki's coastal turfs that we were to see later in the week. We noted one round-tipped leaf *Crassula* that we assumed to be *Crassula manaia*; to our knowledge, the southern-most record of this species. *Apium prostratum* thrives near the cliff edge, and *Sarcocornia quinqueflora*, and beds of *Selliera radicans* whose round leaf form here makes it hard to distinguish from what may be *S. rotundifolia*, also recorded in the area. Other areas were heavily overgrown with planted marram, *Ammophila arenaria* and catsear, *Hypochaeris radicata*.

Mick Parsons

Day 2, 21/1/12: Kakaramea coast – map BK30

The Kakaramea shores are north of Patea. Kaikoura Stream drops over cliffs at least 30 m to the sea. The cliffs expose layers of tertiary sediments, lodestone and petrified timber from bygone swamps. Recent winds had moved sand to cover some herb species, now showing new stems of *Disphyma australe* and *Calystegia soldanella* moving inland from the cliff edges. The scattered *Ficinia nodosa* appeared seriously deformed from wind action; not hard to understand as the froth and spray blew over our heads. Damp areas recently disturbed by livestock and tractor wheels were covered in mats of *Limosella lineata* in flower, next to beds of *Zoysia minima* that supported numerous *Colobanthus muelleri*. Elsewhere, patches of *Gunnera arenaria*, *Lachnagrostis littoralis*, and *Leptinella tenella* grew among the constantly sprayed damp areas.

Rotokare Reserve – map BJ30

Rotokare, 12 km east of Eltham, includes a 17.8-ha lake set in a 230-ha native forest. This community project is the largest mainland island in NZ that is free of animal pests, including mice. Project co-ordinator, Kara Pranker, outlined the work of the trust that administers the project. We were moved by the story of how community involvement and skill acquisition during the building of the predator-proof fence, in difficult conditions, has laid the foundation for a sustainable enterprise with conservation and lake-activities catered for. Over 1100 Taranaki children have taken part in environmental education and conservation activities here in the past year.

Along the bush walkway around the lake, we identified *Diplazium australe* among the predominant *Hypolepis ambigua* and *Pteris macilenta*, interspersed with *Paesia scaberula*. Weeds were thriving in the absence of livestock grazing.

Mick Parsons

Day 3, 22/1/12: Bill Clarkson's garden

It seemed strange, heading for a suburban street in the middle of a city on a BotSoc trip. Bill Clarkson's garden

is a botanical treasure house, and Bill was an informative and enthusiastic host. I think he enjoyed watching how we reacted to what we found.

Bill started to develop his garden about 30 years ago. Today, a canopy of tall kauri, podocarps and treeferns provides a setting for many native species not often seen in home gardens. Tiny treasures such as *Gunnera hamiltonii* flourish in pots. A cluster of young *Phyllocladus* species generated a lively discussion for side-by-side comparisons. We learnt about the longitudinal stretching capabilities of a divaricating *Pittosporum (patulum?)*.

Many people came away with a copy of the catalogue for Bill's on-site nursery. Contact Bill Clarkson, 4 Camden Street, ph 06 753 5811.

Bev Abbott

Huatoki Scenic Reserve & Tupari Reserve – map BH29

Two locals, Bill Clarkson and Cliff Lawrence, led us on tracks through some remarkable plant communities, including numerous, presumably pre-European, trees. They told us that 8.9% of New Plymouth's land area is covered by indigenous plant communities, compared with an average of 1.9% for other New Zealand cities.

The city council, regional council and volunteer groups do pest plant and pest animal control in the extensive network of reserves in the gullies that run through the city. Bill has been working with pupils from Vogeltown School to propagate swamp maire and titoki, from seeds collected in these reserves, then planting the seedlings into them.

We were impressed to see *Collospermum hastatum* and *Astelia solandri* epiphytic on a big titoki, the orchid, *Ichthyostomum pygmaeum*, on hīnau, and masses of the highly palatable *Brachyglottis kirkii*/Kirk's tree daisy. Later, kiekie, and big tawa, rewarewa, kahikatea, kohekohe, pukatea, and a 180-cm diameter rimu, plus having our lunch break in a community orchard with almost-ripe plums available, served to give us a "far-from-the-city" feeling. Among the species we added to the plant list were mangeao / *Litsea calicaris*, *Drymoanthus adversus*, and *Mida salicifolia*.

Chris Horne

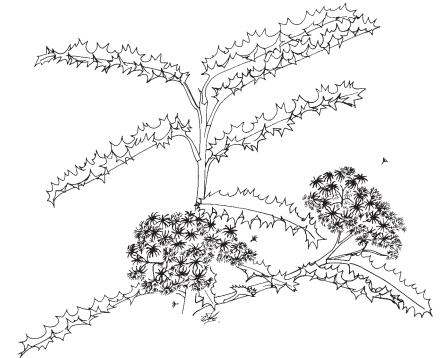
Ratapihipihi Scenic Reserve – map BH29

This reserve is southwest of central New Plymouth, off Cowling Rd and Tukapa St. Along the track through the lush, temperate rainforest, we saw nikau, large kohekohe and pukatea, and the dominant canopy species, multi-trunked tawa with elbows. We also saw saw-pits, dug when trees were felled here in the 1800s to build a schooner and bridges.

Chris Horne

Day 4, 23/1/12: North Egmont – map BJ29

Fifteen of us met at North Egmont/Taranaki visitor centre to study the vegetation around the 1,000-m level on the Ngatoro and Veronica loop tracks, and the short Nature Walk. The 5-km drive through the lower altitude forest from the national park boundary had already indicated a good flowering year for the forest cabbage tree/*Cordyline banksii*, and splashes of bright yellow from the herb, *Senecio rufigliandulosus*, stood out from the sombre greens of the bush edge. (A difficult name to remember, and more difficult to say, until it is broken down to its Latin derivation: *rufus*, fox-red; *glans*, glands—"with small red glands").



Olearia ilicifolia. Illustration: Eleanor Burton.

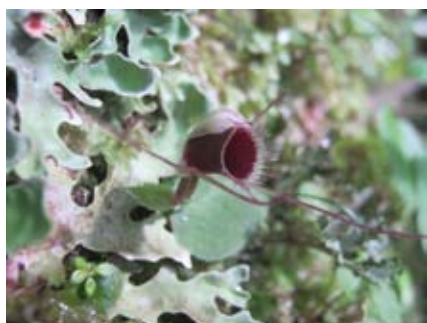
Our initial dismay at the rabbit population, weeds and poor condition of plantings, following earthworks for the recently revamped road-end facilities, was offset by the prolific flowering of established *Olearia ilicifolia*, after which Holly Hut near Ahukawakawa Swamp is named, and robust *Hebe* sp. unnamed (*H. "egmontiana"*) still in bud. We entered gnarled, multi-trunked, kāmahi "goblin forest" draped with the moss, *Weymouthia mollis*, and an abundance of other mosses, liverworts and filmy ferns. The lush

understorey of smaller trees and several fern species, including the attractive Prince of Wales feather, *Leptopteris superba*, reflects the stringent goat control undertaken in the park. Although peak flowering of many species was over, the top whorls of flowers on large-leaved *Ourisia macrophylla* were still evident in cool, damp areas at track and stream sides.



Ourisia macrophylla. Photo: Val Smith.

Terrestrial orchid species included the odd-leaved orchid *Aporostylis bifolia*, *Simpliglottis cornuta* / bird orchid, the spider orchid, *Singulariybas oblongus*, with its tubular dark maroon-fringed flower, and four greenhood species, *Pterostylis venosa*, *P. humilis*, *P. patens* and *P. irsoniana*. The latter, discovered in 1947 on Mt Taranaki by Owen Gibson and Bruce Irwin, was named after them by Dan Hatch using a combination of their two names. Sadly, Bruce, a highly regarded orchidologist and botanical artist, and the last of the trio, died this year at the age of 90.



Singulariybas oblongus. Photo: Sam Buckley.

We climbed only about 150 m, but the vegetation changed considerably, with distinctive golden-brown columnar trunks of pāhautea / *Libocedrus bidwillii*, and mountain tōtara / *Podocarpus*

cunninghamii, becoming dominant, and then giving way to leatherwood / *Brachyglottis elaeagnifolia* scrub and red tussock / *Chionochloa rubra*, as we emerged to enjoy the expansive views from Razorback. At the track edges, *Viola cunninghamii*, *Oxalis magellanica*, *Myosotis forsteri*, *Lobelia angulata* and *Carmichaelia australis* (with botanical names all incorporating those of people) were in flower. Additions to the plant list included *Fuchsia excorticata* on the Ngatoro Loop, and on the Veronica Loop *Rubus cissoides*, *Viola filicaulis*, *Oreobolus* sp., *Poa anceps*, *P. cita*, *Rytidosperma gracile*, *Uncinia ferruginea*, *Cardiomanes reniforme* and *Hymenophyllum villosum*.

Val Smith.

Pouakai Range and Ahukawakawa Swamp – maps BH29 & BJ29

This was to be a big day. Up Mangorei Track to Pouakai (1200 m a.s.l.), over to the swamp (900 m a.s.l.) and return. The climb to Pouakai Hut was slow as we recorded species along the way; especially in the subalpine scrub zones with *Brachyglottis elaeagnifolia*, and the track filled with *Celmisia glandulosa* var. *glandulosa* and *Abrotanella linearis*. The layered shrubs of *Coprosma tayloriae* were common. Fine weather gave us a magnificent view of inland North Taranaki. After lunch, we left for Ahukawakawa Swamp. Here *Carex coriacea* and *Chionochloa rubra* var. *inermis* emerged from the mosses as we walked to the stand of *Melicictus drucei*, interlaced with *Olearia quinquavulnera*. Some of the plants were enclosed in cages, and many more were outside this, growing vigorously alongside other shrubs in an amazing, almost impenetrable, divaricating-shrub 'jungle', above which we could barely poke our heads. Other shrubs in this jungle were *Coprosma decurva*, *C. tayloriae*, *Hebe stricta* var. *egmontiana* and the small-leaved *Olearia quinquavulnera*, in flower. It was necessary to crawl underneath the entanglement to see a new world of plants, including *Senecio rufiglandulosus*, and other herb species. It was a relief to drop down below the canopy and on hands and knees investigate the treasures that were growing in the lush ecosystem

at ground level, e.g., *Myosotis forsteri*, *Mentha cunninghamii* and *Gonocarpus montanus*.

It was well worth the effort to visit one of the most pristine swamps we have seen. Small infestations of yellow sedge, *Carex demissa*, have begun to invade some areas.

Mick Parsons & Barbara Hammonds



Melicictus drucei. Photo: Barbara Hammonds.

Mangorei Track and Pouakai Range

The bush was delightful. We discussed the distinctions between *Coprosma tayloriae* and *C. dumosa*, and the variations in form of *C. tayloriae* bearing in mind the recent work of David Glenny that argues that *C. tayloriae* is a synonym of *C. dumosa*. The leaf of *C. tayloriae* is obovate and the mid-vein in at least some leaves doesn't reach the leaf tip, whereas in *C. dumosa* the vein always reaches the tip.

We saw *Blechnum nigrum*, and learnt to identify *B. novae-zelandiae*, *B. procerum* and *B. montanum*. Before sidling Photographer's Peak, the canopy is about head height. The trackside vegetation included the small, strap-leaf plant, *Abrotanella linearis*, a daisy, unusual because of its size, and its composite flower comprises only a few individual florets, and *Gentianella grisebachii*, with its single flower heads on long, slender stems. Other plants included *Cyathea colensoi*, growing close to the similar *C. smithii*, and, on a *Libocedrus bidwillii*, a patch of the blue-grey fronds of *Hymenophyllum malingii*. The wind-shaped, moss-covered forms of the *Libocedrus* itself were a sight to behold. It seems that *L. bidwillii* is becoming the dominant canopy species. The delicate *Pterostylis graminea* was flowering in the forest, and *P. patens* on the more open trackside. Near the hut were tiny blue-green cushions of *Agrostis muscosa*, and *Bulbinella hookerii*

growing in the *Chionocloa rubra* tussock fields was in flower.

After lunch, some people went east towards Henry Peak to see the endemic *Melicytus drucei*, some intensively botanising the plateau and surrounds. Most genera here were represented by only one or two species, e.g. only one *Ranunculus*, and two *Celmisias*, which is likely to reflect the history of active volcanism wiping out other species which were then unable to recolonise because the closest seed sources were too distant.

Highlights of the day included finding *Ranunculus nivicola* on the tops, past flowering but still with seed heads, though many had been nipped off, likely by rabbits as their droppings and digging were obvious. Seeing alpine plants that we had previously seen only in books was a treat.

Barbara Hammonds

Day 5, 24/1/12: Manganui Ski-field, Mt. Taranaki – map BJ29



Celmisia gracilentia Photo: Gael Donaghy.

The walk from the cable-way, along the foot of bluffs in the Manganui River gorge, and up to the ski-field huts, had the usual range of low alpiners. Near the tunnel, a major interest was in the coriarias—including *C. pteridoides* and *C. sarmentosa*, and the bigger plants had some people thinking they were *C. arborea*. On the bluffs, the *Wahlengeria* was new to us—*W. pygmaea* var. *pygmaea*—determined by the small rosettes, short stems and geographical distribution. The local *Hebe stricta* var. *egmontiana* was also present.

We spread out over the ski-field for lunch and watched the more adventurous on the screes above. At the bottom of the run, the introduced *Carex ovalis* dominated the wetter parts, with some *Gentianella*

grisebachii in flower. Many introduced grasses grow on the drier slopes—*Festuca rubra*, *Holcus lanatus*, and *Anthoxanthum odoratum*. The highlight was some unusual patches of *Celmisia gracilentia*—almost mats of them—in flower.

Two of us botanised a large gully beside the ski-field, and found more plants to add to the rather short list: an uncommon alpine grass, *Deschampsia tenella*, *Trisetum lepidum* agg., *Polystichum cystostegia*, the summer-green alpine fern of rocky places, *Cystopteris tasmanica*, the delicate fern of caves and crevices, and *Schizeilema colensoi* in delicate flower.

Gael Donaghy and Graeme Jane

The 40-minute walk from the Plateau car park to the ski-field took over 3 hours for most of us. Some climbed to the upper slopes, an unstable area being held together by the matted roots of *Coprosma perpusilla* subsp. *perpusilla*, their male flowers with large stamens poking up through the mossy surface. Hare damage was apparent even up there. *Euphrasia cuneata*, *Forstera tenella*, and *Montia calycina* were in flower, but *Ranunculus nivicola* had finished flowering.

Back down on the damp mown area, there were patches of *Juncus novae-zelandiae* interspersed with the finer-leaved *Juncus pusillus*. Elsewhere *Kelleria dieffenbachii* and *Gunnera monoica* were scattered across the area, along with the occasional *Microtis parviflora* and mounds of *Oreobolus pectinatus*.

Mick Parsons



Lepidium flexicaule. Photo: Sunita Singh.

Potaema Swamp

Features of the walk included huge rimu and kāmahi, *Astelia grandis*, *Gahnia xanthocarpa*, swamp maire, and the fern, *Hypolepis rufobarbata*. The view across the wetland to mighty Taranaki maunga ended a wonderful day out.

Chris Horne

Day 6, 25/1/12 Coastal herbfields – map BJ28

Though the herbfield remnants are tiny, we could not fit more than three sites in the day, and much of what we hoped to find is uncommon on the coast as a whole. We started at the end of Puketapu Road. Though still partly used as a metal quarry, there are small areas of undisturbed turf, but most of the cliff top areas are overrun with exotic grasses. There were scattered clumps of *Pimelea carnosa*, and mats of *Agrostis mucosa*. Fishermen had constructed a pathway down to a sea-level cave, now complete with boat and gear. The ledges were refuges for *Coprosma acerosa*, with *Ficinia nodosa*, *Apium prostratum*, *Tetragonia implexicoma* and *Samolus repens*. Further down, tucked under *Phormium tenax*, was *Asplenium appendiculatum* subsp. *maritimum*.

Opunake sewage ponds were a ‘pleasant’ spot to have lunch sitting, on Kikuyu grass, *Pennisetum clandestinum*, that has all but overgrown the area’s herbfields. *Leptinella squalida* was trying to repel the invasion. We saw the perennial *Myosotis pigmea* among *Zoysia minima* and scattered *Colobanthus muelleri*. *Disphyma australis* thrives along the cliff edge.

The highlight of the day was at Stent Road, Warea. Here by the car park was *Plantago triandra* subsp. *masonii*, and *Crassula maniaia*, *Chaerophyllum novae-zelandiae*, *Colobanthus muelleri*, *Ranunculus acaulis* and *Zoysia minima*. Much of the fenced-off area was overrun with white clover, *Trifolium repens*, but *Lepidium flexicaule*, in flower, was thriving among it. There were both forms of the annual, *Myosotis brevis*, some in flower, on a small area of turf, and a few plants of a dichondra, probably *Dichondra brevifolia*.

Burmeister property

There were noises from some members about the need to see some bush in this sparsely forested landscape, so we arranged to visit an isolated 2-ha block of coastal forest that the Burmeister family had saved. After negotiating electric fences, cow races with hedgerows of weedy species, and the remnants of a shed recently blown into the bush by a tornado, we were pleased by what we found. Beneath a battered canopy of kohekohe and titoki, the forest was almost impassable for the healthy lianes within. Vines of *Freycinetia banksii*, *Passiflora tetrandra*, *Muehlenbeckia australis* and *Ripogonum scandens* filled every possible gap. The ground was covered in seedlings of *Rhopalostylis sapida*, *Knightia excelsa* and *Laurelia novae-zelandiae*, as well as a number of fern species, e.g. *Asplenium bulbiferum*, *A. oblongifolium*, *A. polyodon* and *Deparia petersenii* subsp. *congrua*. The larger trees, their tops exposed by wind damage, were covered in epiphytes such as *Collospermum microspermum*, *Earina mucronata* and *E. autumnalis*. Its isolation meant that the bush edge was vulnerable to invasion from weeds. The threat of Japanese honeysuckle, *Lonicera japonica*, overgrowing the entire bush from the western side is real and would have to be dealt with if this block is to be saved long-term.

Mick Parsons

Talk by Bill Clarkson

Bill described to us the work he had done with local schools in propagating threatened plants, and his observations on the younger generation's involvement in some of the environmental awareness

programmes he participated in. He completed the evening with a passionate call to save swamp maire. It was easy to see how its plight reflected the nature of land use in Taranaki, and the continued drainage of soaks. Despite there being a stream riparian management plan for every farm in Taranaki, nothing was being done to care for streams in their upper catchments, and the many drained soaks that exist on most farms. Swamp maire (waiwaka) is now rare, and more were being removed on farms.

Mick Parsons

Day 7, 26/1/12: Toro Road – map BH30

We botanised this 260-ha QEII covenant owned by David and Marie Russell at Purangi. The property, once farmed by Tom Watt, an Acclimatisation Society enthusiast, was gifted to the society, which later offered it for sale. The Russells, concerned to see its heritage honoured, bought the property. We were greeted by Dean Caskey, Taranaki Regional Council Biodiversity Officer, who outlined the farm's history, and explained the pest control status. While one group worked their way up the valley, the rest followed Dean around the ridge tops as he checked the trap lines. Before we had even entered the forest proper, we had added to the plant list several species found in cut-over inland Taranaki forest. Besides some grand northern rātā, *Metrosideros robusta*, there were *M. diffusa*, *M. perforata*, *M. fulgens* and *M. colensoi*. The three maire, *Nestegis cunninghamii*, *N. lanceolata* and *N. montana*, and two tōtara; *Podocarpus totara* and *P. cunninghamii* were found, as were the epiphytic orchids *Earina mucronata*, *E. autumnalis* and *Winika cunninghamii*.

Two of us followed a line to the bottom of a gully with a small swamp where we added the ferns *Hymenophyllum flabellatum*, *H. franklinii* and *H. revolutum*. In the swamp area we added several sedge species, including *Uncinia forsteri* and *Carex maorica*, before we returned through a stand of *Quintinia serrata* and *Laurelia novae-zelandiae*, under which there were shrubs of kaikaia tua / *Rhabothamnus solandri*.

Lunch was perfumed by the smell of possum carcasses from nearby trap stations, but the reward was finding *Botrychium bifforme* where we sat, and soon we saw *Pittosporum cornifolium* on a large rātā. The cliffs below us were edged with *Dracophyllum strictum*, and when we emerged into light areas, the track cuttings were covered in *Drosera binata*.

Mick Parsons

A small group botanised the swamp area, then walked up a farm road leading to the ridge on the east side of the valley. The high banks cut into the hillside provide habitat for many plants, most notably young *Dracophyllum strictum*, long trails of *Lycopodium scariosum*, and some *Nematoceras oblongus*. Near the top of the ridge, a *Metrosideros perforata*, resplendent with white flowers, covered an area of at least 2 m².

Sunita Singh

A group of two walked up a gully below the farm road mentioned above. Under the tawa canopy, they noted *Blechnum colensoi*, usually found in wet sites, growing on a well-drained spur, saw severe browse on kiekie, and heard a North Island robin.

Chris Horne & Gavin Dench

Day 8, 27/1/12: Kererū Keep, Tikorangi Rd East – map BH30

Janica Amor provided her plant list, and led us on this trip on Neil and Jackie Whitehead's farm. The sight of a sprinkler expelling effluent onto a paddock as we arrived was a fitting symbol of the casting out of previous impressions some of the group may have had of how dairy farmers manage native vegetation on their land. Sheltered from a shower in an implement shed, Jackie explained how she engendered community support to assist with the management of their three QEII bush covenants, each of 3 ha, on their 120 ha dairy farm. The fact that kiwi had been heard within the vicinity stimulated friends and neighbours, as well as the business community, e.g. Methanex, to help when Jackie sought help. Taranaki Regional Council helped them to acquire the technical expertise and poison licence for a self-help pest control programme, some neighbours adopted a trap or bait station, while others assisted with making tracks and bridges to provide access. Jackie

set up a web site to keep everyone up-to-date with general news and pest-control successes. The result is that the Tikorangi community 'owns' and takes deserved credit for the successful regeneration of this bush. The model is one that deserves to be emulated elsewhere. It was still raining as we walked to the first block. Inside the gate, the damage cattle can do was apparent. Two nikau, *Rhopalostylis sapida*, showed evidence of browsing, yet Neil said it had been four years since a lone cow broke into the reserve. The first block had a track along a ridge among a canopy of large tawa, kohekohe and pukatea. A few kahikatea and miro emerged above. We descended a track lined with king fern, and then down and across a swamp area festooned with banks of brown-leaved parataniwha, *Elatostema rugosa*. As we emerged

from the bush over a stile beneath a kahikatea smothered in seed, we saw a lone swamp maire, *Syzygium maire*, in a side stream and soak that ran into the bush covenant from which we had emerged. It highlighted the plight of this species emphasised to us by Bill Clarkson. Despite efforts by farmers to save bush habitats, this species occupies habitats at the top of catchments too easily removed in the past, and difficult to reconstruct.

The second bush covenant, c. 100m away, on a higher well-drained site, featured a large rimu and a viewing platform. We saw extensive beds of parataniwha and numerous king fern / para / *Ptisana salicina*. We emerged at the top of this bush to open farmland and sunshine, and returned to the homestead, for a late lunch in the sun.

Mick Parsons

Participants: Beth Andrews, Rita Chin, Barbara Clark, Rae Collins, Gavin Dench, Jenny Dolton, Gael Donaghy*, Rewi Elliot, Dale Every, Julia & Ken Fraser, Bryan & Robyn Halliday, Barbara Hammonds, Margaret & Richard Herbert, Chris Hopkins, Chris Horne, Hilarie Hoskin, Priscilla Isaacs, Graeme Jane*, Brenda Johnston, Rodney Lewington, Finn Michalak, Barbara Mitcalfe, Syd Moore, Mick Parsons (trip organiser / leader), Emil Schmiege, Darea Sherratt, Sunita Singh, Val Smith, Laurel Stowell, Yvonne Weeber.

* = provider of plant lists

We thank the following local people who guided us on day trips: Janica Amor, Dean Caskey, Bill Clarkson, Barry Hartley, Cliff Lawrence, Kara Pranker, and members of the Whanganui Museum Botanical Group.

4 February 2012: Korokoro Valley, true left branch – map BQ32

We met at the Oakleigh St, Maungaraki, Lower Hutt, entrance to Belmont Regional Park, then botanised slowly down the walkway to Korokoro Dam. We added plants, native and adventive, to a list prepared on 4/8/2007 during a field trip on other tracks in this attractive, bush-clad valley. Highlights in the three hours we took to reach the dam included Chris Hopkins' rediscovery of several plants of the epiphytic orchid, *Drymoanthus adversus*, growing on big tawa, and the not-so-pleasing discovery of *Pseudopanax* hybrids, and the weedy fern, Cretan brake, *Pteris cretica*, growing below

a footbridge. We sent a sample, and a description of the location of the fern, to Greater Wellington Regional Council (GWRC).

We ate lunch sheltering from fine drizzle, under regenerating forest near the dam, then climbed the old tramping track direct to our starting point. The feature of the upper part of this route, from which pines were cleared several years ago, is to see the range of colonising native species, and weeds, which are replacing the old plantation. Native species include wineberry, hangehange, *Coprosma lucida* and *C. robusta*, kohuhu, māhoe, māpou, rangiora, mamaku

and ponga. Common weeds include Himalaya honeysuckle and gorse.

Additions to the indigenous plants list included tarata, *Solanum laciniatum*, *Tmesipteris tannensis*, *Loxogramme dictyopteris*, *Polystichum vestitum*, *Drymoanthus adversus*, *Pterostylis banksii*, *Dichelachne crinita*, *Gahnia setifolia* and *Wahlenbergia violacea*. We made numerous additions to the weeds list. The lists have been sent to GWRC, and the NZ Plant Conservation Network.

Participants: Chris Hopkins, Chris Horne (leader/scribe), Gail Mosey, Mick Parsons, Grant Roberts.

3 March 2012: Makara Hill, Karori

This trip was cancelled because of bad weather, so will be run on Saturday 7 July.

6–8 April 2012: Western Wairarapa – map BP34

Glorious weather throughout contributed to our appreciation of two Queen Elizabeth II Open Space Covenants and DOC's Carter Scenic Reserve.

Day 1: Highden Station, near Masterton

Our hosts on Friday at Highden, 626 Upper Plain Road, were Tom and Helen Holmes whose forebears had farmed there for decades. Over morning tea on a high terrace above

the valley floor, they described how they came to covenant their areas of native forest. Old, gnarled, remnant hinau trees, wind-tortured into weird shapes, dotted the home paddocks. After descending to the meandering stream we noted, in passing, how the newly-fenced banks had already begun to show a green fuzz of seedlings, many of them still too tiny for accurate identification. Under tall titoki and kākūka in the canopy, were some very large barberry which

Trevor Thompson, Wellington-Wairarapa QEII Trust representative says will be removed.

Trevor accompanied us as we left the first covenant and climbed to the covenanted wetland nestled inside the recently constructed fence. Here we admired the lone, 3-m *Nestegis montana* on the outskirts of the previously-grazed area for which we were fortunate to have copies of the plant list compiled by Pat Enright and Tony Silbery in January this year.

Among indigenous additions on this site were an adult *Prumnopitys ferruginea*, *Coprosma grandifolia*, *Histiopteris incisa*, *Hypolepis lactea*, *Lastreopsis velutina* (uncommon), *Polysticum oculatum*, *Prasophyllum colensoi* agg., *Astelia solandri* and *Potamogeton suboblongus*. Adventive additions were *Sambucus nigra*, *Taraxacum officinale* and *Potamogeton crispus*.

That evening, at Greytown's Memorial Park Campground, we camped under the large, well-remembered, mistletoe-hung tōtara and titoki trees, and enjoyed a potluck meal in a kitchen we had all to ourselves.

Day 2: Zabell Farms Ltd covenanted areas

We spent Saturday botanising the extensive covenanted areas on Zabell Farms. The goal of the Environmental Management Plan for Zabell Farms Ltd is "To maintain and enhance the wetland and bush areas for future generations". The plan has four objectives:

1. Eliminate weeds and prevent them from re-establishing.
 2. Minimise animal pests to allow as many chicks to fledge as possible. Protect Forest & Bird's Fensham Reserve's southern boundary.
 3. Protect habitat for native fauna and flora.
 4. Establish eco-sourced native plants.
- The objectives are being implemented by a set of activities specified in the plan.

Overlooking the plains to the east, the homestead is on a commanding site, with a large patio with built-in stone boxes planted with vegetables

and herbs. Welcoming us on the patio, our host Aidan Bichan gave us a thorough briefing on the whole farm. First we botanised the bush block, down the true left of a small stream, through young, regenerating podocarp/broadleaf forest, then climbed through mixed beech and epacrids, to lunch at the lookout on the covenant's shared boundary with Fensham Reserve. The covenant and the reserve, although of separate tenures, are one continuous ecological unit, each complementing and benefitting the other. From there we descended the Fensham track system, noting the significant developments since we were last there. We then crossed back onto Zabell Farm, and into the wetland covenant. This is a newly fenced area of rank pasture grass, sedges such as *Carex geminata* and *Machaerina* (= *Baumea*) species, emergent shrubs and small trees such as *Coprosma tenuifolia*, and a dense, extensive stand of mānuka. All of these are naturally occurring, as is a colony of the threatened mudfish.

NZ mudfish

Neochanna apoda, a kowaro sp./brown mudfish occurs in the southern half of the North Island, and on the West Coast of the South Island. The fish is our largest mudfish, growing to 175 mm long.

Chris Hopkins

It will be interesting to know how long it will take for predominantly indigenous wetland vegetation to eventually overcome the rank pasture grasses. Towards sundown, returning to our cars, we traversed a lower

part of the Bush Block covenant, a small narrow strip with a grove of enormous, historic tōtara trees, some of the biggest we had ever seen.

Barbara Mitcalfe

Day 3: Carter Scenic Reserve

We were fortunate to have copies of a substantial plant list originally compiled by A. P. Druce and added to over the years on numerous visits by Pat Enright, Olaf John and Tony Silbery. Our role was to assist the local care group with plant identification as we traversed the extensive DOC wetland on boardwalks. We were pleased to note that *Coprosma pedicellata* (= *C.* "violacea"), categorised nationally as in Gradual Decline, was conspicuously in fruit. Long term, the extensive stands of tall raupo may contribute to drying the site by their own natural ecological processes. However, discussion centred on whether there might also be effects from other processes such as draw-off of water for agricultural purposes which should be investigated, to restore the site's hydrology, and stop the dieback of species such as kahikatea. BotSoccer Pat McLean is leading the care group as they continue to pursue these and other issues of concern.

Barbara Mitcalfe

Participants: Bev Abbott, Aidan Bichan (leader, day 2), Chris Black, Gavin Dench, Bryan Halliday, Tony Henry, Chris Hopkins, Chris Horne, Rodney Lewington, Pat McLean (leader, day 3), Barbara Mitcalfe, Chris Peterson, Darea Sherratt, Sunita Singh (trip organiser), Sheila Stapleton, Trevor Thompson (leader, day 1), Carol West, Pat White.

EVENING MEETING REPORTS

Plant of the month

We thank the following for their presentations:

- 19 March 2012: Gil Roper – whau / *Entelea arborescens*
- 16 April 2012: Eleanor Burton – flower of Hades, pua-reinga, waewae atua / *Dactylanthus taylorii*
- 21 May 2012: Richard Herbert – tawa / *Beilschmiedia tawa*

21 May 2012: Members' evening

We thank Stan Butcher for his generous gift of numerous books on botany and other aspects of natural history, Rosemary Collier for her donation of kōwhai seedlings and a pair of tramping boots, and Julia Stace for her donation of a book. All these items were put up for auction at the meeting, raising \$386 for our Jubilee Award Fund. We thank Eleanor

Burton and Barbara Mitcalfe for compiling a list of books donated, and Carol West for acting as treasurer and reserve-price setter on the night.

Rodney Lewington
Treasurer



Membership application

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

I wish to join the Society

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

My address Phone (.....) (w)
 Fax (.....)

I would like to receive my newsletters by e-mail as a PDF: YES / NO (Delete as appropriate)

My/our e-mail address@.....

Signature Date:..... / /

The membership year is from 1 July to 30 June. Dues received after 1 May will be credited to the following year.

Membership fees for the year ended 30 June 2013 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

My cheque is enclosed for	Ordinary membership	\$.....
	Country membership	\$.....
	Student membership	\$.....
	Group / family membership	\$.....
	Donation	\$.....
	TOTAL	\$.....

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

and e-mail this completed form to the Treasurer at 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 newsletters etc.

The committee sees benefit in circulating the membership list to all members. This is done by many societies to enhance social interaction as well as being of practical value.

Under the Privacy Act the circulation of names on such lists requires the approval of the individual members.

If you are agreeable to your name and address being on the circulated list, please sign the authorisation below and return it with this membership application.

I agree to my name, address and telephone number being on the membership list to be circulated to members of the Wellington Botanical Society. I understand that this list is to be used only by members, and that the circulated list will include the caveat that the list is for social and society use and is not to be used for any other purpose. Specifically the list is not to be used for marketing, soliciting or political purposes.

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