

# Wellington Botanical Society

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



# NEWSLETTER

## September 2013

Previous issue: June 2013

ISSN 1171-9982

### From the President

Firstly my thanks to Chris Moore for chairing the recent AGM in my absence. The committee has agreed to retain subscriptions at last year's levels. The budget is marginal but, if we are to continue to produce our flagship Bulletin regularly, a small increase in subscriptions seems inevitable next year.

It is to be regretted that 2013 is likely to be forever remembered for yet another restructuring of DOC, along with the go-ahead being given to the mining of Denniston Plateau, and deep-sea oil drilling. These operations present a huge risk to NZ's flora and are still subject to opposition campaigns.

We have been influential in submissions on the WCC Town Belt Management Plan, and proposals for a new combined Botanic Gardens Management Plan. Submissions also continue on DOC's regional conservation management strategy (CMS) consultations, and a stream of Wellington Regional Council Biodiversity Area Plans. My thanks to those who have contributed comments.

The Society helps to increase knowledge of NZ's indigenous flora through sponsorship from the Jubilee Award—see item page 12. The Fund must be continually replenished; and one method we use to do this is through the sale of seedlings/cuttings at evening meetings. If you have specimens that would interest other members, we would value your contributions.

Also with this newsletter is the registration form for the annual summer camp, this year to be based at Waikaremoana and Whirinaki Forest. Please signal your interest early so as not to be disappointed.

*Richard Herbert*

### New members

We welcome the following:

Dr Ann Evans, Kaira Ranganui-Love, Nick Saville, Caroline Smith.

*Lea Robertson, Treasurer*

### Wellington Botanical Society

<b>Address:</b>	PO Box 10 412, Wellington 6143		
<b>Web site:</b>	<a href="http://www.wellingtonbotsoc.org.nz">www.wellingtonbotsoc.org.nz</a>		
<b>President:</b>	Richard Herbert	232 6828	
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	Eleanor Burton	479 0497	
<b>Secretary:</b>	Barbara Clark	233 8202	233 2222 (fax)
		e-mail: <a href="mailto:bj_clark@xtra.co.nz">bj_clark@xtra.co.nz</a>	
<b>Treasurer:</b>	Lea Robertson	473 8211	
<b>Auditor:</b>	Peter Beveridge	237 8777	
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<b>Bulletin editor:</b>	Dr Leon Perrie	381 7261 (w)	
		Te Papa, PO Box 467, WN 6140	
<b>Newsletter editor:</b>	Chris Horne	475 7025	475 7253 (fax)
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		28 Kaihuia St, Northland, WN 6012	
<b>Annual subscription:</b>	ordinary \$35; country \$30; student \$10; joint / group / family \$40.		

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

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

### Articles for web site

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

[www.wellingtonbotsoc.org.nz](http://www.wellingtonbotsoc.org.nz)

Please send your article to:

Richard Herbert

e-mail [herbert.r@xtra.co.nz](mailto: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](mailto:leonp@tepapa.govt.nz) or 381 7261.

### Meetings

BotSoc meetings are usually held at 7.30 p.m. on the third Monday of each month at Victoria University, W'gton – Lecture Theatre MYLT101, ground floor, Murphy Building, west side of Kelburn Parade. Enter building about 20 m down Kelburn Pde from pedestrian overbridge. No meetings December and January.

### Field trips

Day trips to locations in the Wellington region are usually held on the first Saturday of each month.

Extended excursions are usually held at New Year, the first weekend in February, at Easter and the first weekend in December.

**DEADLINE FOR COPY FOR NEXT ISSUE – 20 November 2013**

Articles may be edited for clarity and length

# ATTENDING FIELD TRIPS AND MEETINGS

## Ideas please

We welcome your ideas about:

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

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

## Field trips

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

### Clothing for field trips

Sun hat, balaclava<sup>1</sup> or hat<sup>1</sup>, waterproof/windproof parka, long-sleeved cotton shirt, singlet<sup>1</sup>, bushshirt<sup>1</sup>, 1 or 2 jerseys<sup>1</sup>, waterproof/windproof overtrousers, nylon shorts, longjohns<sup>1</sup>, longs<sup>1</sup>, underclothes, swimming togs, 4pr socks<sup>1</sup>, hut shoes, boots, gaiters, mittens<sup>1</sup>, handkerchief.

### Day trip gear

First aid kit, compass<sup>2</sup>, map<sup>2</sup>, insect repellent, whistle, matches in waterproof container, water purification tablets, water bottle, thermos, pocket knife, camera<sup>2</sup>, binoculars<sup>2</sup>, hand lens<sup>2</sup>, note book<sup>2</sup>, pen and pencil<sup>2</sup>, 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, Glucose<sup>3</sup>, Ginger, Including Nuts.

1 = wool, polypropylene or polarfleece as applicable.

2 Optional

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

### BotSoc equipment

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

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

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

### Health and safety

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

## Fitness and experience

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

## Transport reimbursement of drivers

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

## Trip leaders

Please draft a trip report for the newsletter.

## Meetings

### Public transport to meetings

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

#### TO MEETINGS

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

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

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

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

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

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

#### FROM MEETINGS

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

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

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

Last service 10.01 p.m.

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

# FIELD TRIPS AND EVENING MEETINGS: OCTOBER 2013 – FEBRUARY 2014

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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 5 October: Field trip

## Ngauranga-Horokiwi coastal escarpment

Have you ever glanced to the left while travelling from Ngauranga to Petone, and wondered what was growing on the cliffs? This regenerating coastal forest of tawa-kohekohe-rewarewa, with occasional matai, and possibly other podocarps, is well worth a visit. Meet: 9 a.m. bottom of Malvern Rd, next to coffee caravan (open Saturday). If travelling north from Wellington, take the Hutt Road, *not* the motorway, turn onto Centennial Highway (SH1) at the Ngauranga traffic lights, and then turn right as if you were travelling to LV Martin's. If travelling south down the gorge, take the Hutt Valley / InterIslander turnoff and turn left onto Ngauranga Gorge Rd. Catch no. 52 Newlands/J'ville bus from Lambton Quay North End, Stop H, at 8.45 a.m. Leader: Frances Forsyth 384 8891; co-leader Gavin Dench 387 9955 / 027 405 2987. Note: check web site as some details of trip are not yet confirmed.

## Monday 21 October: Evening meeting

## Grasses in NZ

Speaker: Kerry Ford, Botanist, Allan Herbarium, Landcare Research, Lincoln. There are c. 460 species of grasses in NZ (indigenous & naturalised) - of this total c. 190 are indigenous (41%). Grasslands, or mosaics of grass and shrubland, cover nearly 60% of NZ. Generally, the higher altitudes and inland basins are dominated by indigenous species of tussock-form (*Chionochloa*, *Festuca*, *Poa* and *Rytidosperma*). Kerry will give an outline of morphology of the grass family as a guide to identification, a brief introduction into grass taxonomy in NZ, and then a photo essay of the indigenous grass flora—"grasses and grasslands".

## Saturday 2 November: Field trip

## "Muri Bush", Pukerua Bay

Botanise a 4-ha block of regenerating coastal forest, ranging from tall kohekohe to wind-swept coastal flax, numerous fern species, large-leaved milk tree, tītoki etc. Intensive pest animal & pest plant control underway. Catch 8.14 a.m. train on Kāpiti line from Wellington to Pukerua Bay, then cross SH1 via overbridge to meet 9 a.m. in Archway Books car park, cnr Teihana Rd & SH1, then travel in convoy to no. 7 SH1, first turn left after Pukerua Beach Rd - see balloons 100 m before entrance gate. Leaders / hosts: Ted Coats & Cathy Pearson, 239 8241; W'gton contact:: Chris Horne 475 7025. Muri Bush & homestead: [https://mapsengine.google.com/map/edit?mid=zzN2t3ApIU4A.kT\\_VI51UMC6M](https://mapsengine.google.com/map/edit?mid=zzN2t3ApIU4A.kT_VI51UMC6M)

## Saturday 16 November: Field trip

## Te Marua Bush workbee

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

## Monday 18 November: Evening meeting

## High school & VUW students' presentations

**Max Culver** is a year 8 (form 2) pupil at South Wellington Intermediate School. He has long had an interest in science, especially plants. For the 2013 science fair, Max investigated an aspect of rongoa Māori—the traditional use of native plants, and won the Wellington Botanical Prize for his study of the anti-fungal uses of horopito. Max will share the findings of these investigations and display his exhibits. He will also mention his previous work on the anaesthetic properties of kawakawa.

**Aprille Gillon:** Ecological restoration of Wairio wetland, Lake Wairarapa: investigating processes influencing survival and composition of a wetland plant community.

**Suzanne Krejcek:** Investigating reptile-friendly ways of converting marram dunes to native-dominated dunes. Is dead marram grass sprayed with herbicide better at facilitating the establishment of spinifex, than planting the native sand-binder amongst live marram grass, or on bare sand sites?

**Kate Calcott:** Researching the role and function of two plant pigments: betalains and anthocyanins—no plant naturally contains both these purple-red pigments. Kate will explain the differences and similarities between the pigments, and how this knowledge contributes to our understanding of their synthesis.

**Jonathan Frericks:** Exploring mycorrhizal diversity in NZ terrestrial orchids to enable their conservation: The

Orchid family has a significant number of threatened and uncommon species in NZ, but conservation methods are underdeveloped owing to lack of information about fungal interaction required for recruitment. This study aims to: (1) identify fungal endophytes of several NZ orchids using molecular methods, (2) germinate orchid seed symbiotically in-vitro using cultured fungi, and (3) investigate suitable germination sites surrounding established orchids in situ.

**Amanda Taylor:** Radial habitat selection in arboreal plants: This study looks at the radial distribution of vascular epiphytes and parasitic mistletoes in the Nelson Lakes region. Do their distributions exhibit a cardinal bias, and do they actively select optimum habitat?

### **Saturday–Sunday 30 November – 1 December Field trip**

### **Wairarapa**

**Day 1:** Botanise Mt Bruce National Wildlife Sanctuary. Meet 10.15 a.m. Mt Bruce car park, c. 30 km north of Masterton on SH2. Then visit *Riversong*, nestled on the banks of the Ruamahanga River, featuring original forest, some retired, cleared and planted areas, four mistletoe species and other rare Wairarapa plant species. Since the early 1980s, mistletoe-planting techniques have been refined here, then used to reintroduce mistletoes to other Wairarapa sites. The second largest population of *Tupeia antarctica* is established here, as is *Alepis flavida* sourced from Ngahape's relict population. This seed source will secure the species' future in the Wairarapa. *Peraxilla tetrapetala* grows here, the only Wairarapa site outside Tararua Forest Park. Leader: Trevor Thompson 027 3333 243. W'gtn contact: Sunita Singh 04 387 9955 / 027 4052 987 (*text only*) Chris Horne: 475 7025. Accommodation: Greytown Campground, Kuratawhiti St, Greytown. \$14 pp. Ph: 06 304 9281. Limited tent sites booked. Contact Sunita to ensure extra bookings are made if needed, or phone campground directly. Pot-luck dinner; bring own lunch and breakfast.

**Day 2:** Fensham Bush Reserve, Upper Belvedere Rd, W of Carterton, and RW Tait Scenic Reserve, Papawai Rd, E of Greytown. Meet 9.30 a.m. Memorial Square, Carterton. Leader: Chris Horne 475 7025.

### **17–28 January 2014: Field trip**

### **A. Te Urewera National Park; B. Whirinaki Forest Park**

**Bases:** A - 17– 24.1.14 - Camp Kaitawa; B - 25 – 28.1.14 - Whirinaki Recreation Camp, Minginui.

Botanising opportunities include:

**A:** Lake Waikareiti Track, Hinerau Walk, Black Beech Walk, Hinu Walk, Ngamoko Track, Old Māori Trail, Tawa Walk, Lake Kaitawa Walk, Panikire Bluffs.

**B:** Forest Sanctuary Track, H-tree Track, Arahaki Lagoon Track, Waiti Falls Track, Waterfall Loop Track.

Participants will be welcome on either or both parts of this trip.

**References:** Waikaremoana & Whirinaki Recreation Areas. 1:50,000 map. \$19; Lake Waikaremoana Walks. \$2. Te Urewera Mainland Island. \$2; Lake Waikaremoana Great Walk. \$2. DOC Visitor Centre, Manners St, WN. Leader: Mick Parsons. Registration form and more details at rear of newsletter.

[www.wellingtonbotsoc.org.nz/trips\\_2013.html#Jan14](http://www.wellingtonbotsoc.org.nz/trips_2013.html#Jan14)

Camp Kaitawa information leaflet: Secretary, Camp Kaitawa Trust, Arthur Miller School, Taradale.

### **Saturday 15 February: Field trip**

### **East Harbour Regional Park**

Botanise coastal beech / broadleaf forest and shrublands along Muritai & McKenzie tracks. Meet 9.45 a.m. on Muritai Rd, Eastbourne, just S of Titoki St. Catch no. 83 Eastbourne bus 8.50 a.m. from Courtenay Place. – alight on Muritai Rd at stop beyond Titoki St. Co-leaders; Chris Horne 475 7025; Barbara Mitcalfe 475 7149.

## **AWARDS AND GRANTS**

- 30 October. **Wellington Botanical Society Jubilee Award 2013.** See article in this newsletter.
- 30 October. **Arnold and Ruth Dench New Zealand Botanical Award.** See article in this newsletter.

## **EVENTS**

- *First Saturday each month, 9 a.m.* Plant care working bee. Meet at Information Centre, Otari-Wilton's Bush, 160 Wilton Rd.. Wilbur Dovey 499 1044.
- 22 September. **Waiu Wetland, Wainuiomata.** Guided walk – description of work so far, and plans for more work. Meet: 2 p.m., Wainuiomata Mountain Bike Park, end of

Waiu St, Wainuiomata. At the roundabout at the bottom of Wainuiomata Hill Rd, go left on to Parkway, then first left to Waiu St. Leader: Russell Bell.

17-18 October. Conservation Incorporated – What's ahead for community-based conservation in NZ? Dunedin Centre, The Octagon, Dunedin. Preceded by workshop on 16 October on fundraising, leadership, predator management.

- *Yellow-eyed Penguin Trust* [conference@yeptrust.org.nz](http://conference@yeptrust.org.nz)
- 20–25 October. **5th Global Botanic Gardens Congress.** Dunedin
- *Submit proposals for symposia, papers and posters at* [www.5GBGC.com](http://www.5GBGC.com)
- 22–26 November. **2013 John Child Bryophyte and Lichen Workshop.** Preliminary notice. Ohakune. Backpacker accommodation: Station Lodge, Ohakune. Other accommodation is available. Contact Graham Pritchard [g.pritchard@inspire.net.nz](mailto:g.pritchard@inspire.net.nz)

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

- 29 November – 1 December. **ECO Conference.** Kauaeranga Valley, Coromandel Forest Park. “Which way NZ?”. Topics include: The environment in a NZ Constitution, the RMA; Crown Minerals Act & other recent law changes; mining at sea & on land; climate change, energy & choices for the future. Programme and registration: [www.eco.org.nz](http://www.eco.org.nz). Environment & Conservation Organisations of NZ Inc, Box 11 057, WN. 04 385 7545, [eco@eco.org.nz](mailto:eco@eco.org.nz).
- *Miscellaneous dates.* **DOC runs field courses and online courses for volunteers, including plant and bird identification – some are free, others charged.** Numerous topics – check: [www.doc.govt.nz/getting-involved/get-trained/field-based-courses/plant-identification/](http://www.doc.govt.nz/getting-involved/get-trained/field-based-courses/plant-identification/)

## PUBLICATIONS

1. **Wellington Hawke’s Bay Conservation Board.** Annual report to the NZ Conservation Authority 1.7.2012 – 30.6.2013. A4, 24 pp.
  - *WN HB Conservancy, DOC, Box 10412, WN.*
2. **NZ Birds Online web site.** <http://www.nzbirdsonline.org.nz>  
Te Papa blogs on Colin Miskelly’s highlights from the NZ Birds Online project: <http://blog.tepapa.govt.nz/2013/07/02/new-zealand-birds-online-a-few-of-my-favourite-things-part-1/>  
<http://blog.tepapa.govt.nz/2013/07/09/new-zealand-birds-online-a-few-of-my-favourite-things-part-2/>  
If you have trouble opening the sound files, please be patient (or try switching your browser to Google Chrome). **Google disabled their flash player recently.** We are looking into alternatives.
  - *Colin Miskelly, Curator Terrestrial Vertebrates, Museum of NZ Te Papa Tongarewa*
- 3a. **Greater Wellington Regional Council – Regional Plan review.** No. 5 7/13. [regional-plan@gw.govt.nz](mailto:regional-plan@gw.govt.nz)
- 3b. **State of the Environment report cards.** [www.gw.govt.nz/ser](http://www.gw.govt.nz/ser)
- 3c. **How to recognise & dispose of pest plants; Why plant natives?** A3 – double-sided.
- 3d. **Pest plants of the Wellington region.** A4 – 8 pp.
- 3e. **Whitireia Park.** Brochure.
- 3f. **Queen Elizabeth Park.** Brochure – A3.
- 3g. **Plant me instead! A5 booklet.** 40 pp. Free.
  - *Greater Wellington Regional Council, Box 11 646, WN 6142. [www.gw.govt.nz](http://www.gw.govt.nz)*
- 4a. **Wellington Town Belt Management Plan.** 8/13. A4 255 pp, illustrated.
- 4b. **Branch Out.** Spring: planting; “biophilic” (= living) cities; video for pest-control volunteers; lizards; 20 June storm damage; etc. [branchout@wcc.govt.nz](mailto:branchout@wcc.govt.nz)
  - *Wellington City Council, Box 2199, WN 6140. [www.wcc.govt.nz](http://www.wcc.govt.nz). Ph 499 4444.*
5. **Gisborne District Council streamside planting guide:** see <http://www.gdc.govt.nz/streamside-planting/>
6. **Trilepidea.** 115 6/13: NZPCN conference; *Nestegis apetala*; plant-conservation training; urban bush reserves; business cards; aquatic plant info. from NIWA on web site; Kaipatiki project; explaining scientific names—names of origin; Project Gold – kōwhai in Otago; Port Hills planting; flowering & fruiting records; etc. 116 7/13: National Plant Conservation Endowment Fund; *Poa incrassata*; results of botanical forays; explaining scientific names—Ngā ingoa Māori; feral pōhutukawa; naturalised natives; *Montigena novae-zelandiae* “scree pea”; *An illustrated glossary of botanical terms featuring NZ plants*, an i-book by Roy Foster; Paremata Flats restoration; killing *Pinus contorta*; genetic diversity in kākābeak; etc. 117 8/13: botanising eastern Bay of Plenty coast; *Pseudopanax linearis*; fundraising for Endowment Fund; growing native terrestrial orchids from seed; *Flora of subantarctic islands*—online revision; online image library now c. 26,000; Mangere Island restoration; Taieri Scroll

- Plain—DOC seeks international recognition; explaining scientific names—the shape of things; NZPCN awards 2013; Yellow-eyed Penguin Trust conference; etc.
- *NZ Plant Conservation Network, Box 16 102, WN 6242. [events@nzpcn.org.nz](mailto:events@nzpcn.org.nz)*
7. **NZ Botanical Society.** 113 9/13: John Braggins receives Allan Mere Award 2013; news from regional botsocs; new *Lepidium* revision; *Dicksonia fibrosa* naturalised in the Auckland area; cabbage tree die-back in Ireland; update from Te Papa’s WELT herbarium; biographical sketch – Tupaia (1725? – 1770), by Val Smith; *Geranium solanderi*; etc.
    - *NZBS, c/- Canterbury Museum, Rolleston Ave, CH 8013. [www.nzbotanicalsociety.org.nz](http://www.nzbotanicalsociety.org.nz)*
  - 8a. **Auckland Botanical Society.** 12/12 – 1/13: *Auckland’s remarkable urban forest* by Mike D Wilcox. 348 pp. 7/13: 2013 drought & effects on native trees; revision of *Lepidium oleraceum*, 9/13: books and bulletins for sale; etc
  - 8b. **ABS Journal 6/13 Vol.** 68 (1). *Heartwood – tōtara in NZ’s natural & cultural history.*—lecture by Philip Simpson; ABS 75th jubilee; field trips; etc.
    - *ABS, Box 26391, Epsom, AK 1344. <https://sites.google.com/site/aucklandbotanicalsociety/>*
  9. **Canterbury Botanical Society.** 8/13: what botanists grow in their gardens; etc; 9/13: What stream bank vegetation is best for inanga whitebait?; etc.
    - *CBS, Box 8218, CH 8440.*
  10. **Otari-Wilton’s Bush Trust.** 9/13: NZ Plant Conservation Network Endowment Fund; Otari web site—help sought; 20 June storm damage; ; Arbor day planting; course for year-13 biology classes on evolutionary processes leading to speciation; *Meliclytus crassifolius* agg.; etc.
    - *OWBT, 160 Wilton Rd, Wilton, WN 6012*
  11. **Ecolink.** 8/13: Changes to Resource Management Act; Milford-Dart Tunnel & Fiordland monorail decisions; kauri die-back; constitutional protection for the environment; Dame Anne Salmond’s article on erosion of democratic rights & freedoms; etc.
    - *ECO, Box 11 057, WN 6142. Ph 385 7545. [eco@eco.org.nz](mailto:eco@eco.org.nz)*
  12. **Forest & Bird.** 347 2/13: in praise of tiny flowers; Waitaki Valley tussocklands; F&B’s 90th anniversary; NZ Biorecording Network Trust and NatureWatch NZ; seaside gardens; native gardening by the sea; Mangarākau Swamp; etc. 349 8/13: Mackenzie Basin; wood rose—*Dactylanthus taylori*; planting along Mawaihakona Stream, Upper Hutt; Denniston Plateau & offer by Bathhurst Resources Ltd; RMA under threat; “Environmental rights & wrongs” by Claire Browning; etc.
    - *Forest & Bird, Box 631, WN 6140. [www.forestandbird.org.nz](http://www.forestandbird.org.nz) [office@forestandbird.org.nz](mailto:office@forestandbird.org.nz)*
  13. **FMC Bulletin.** 193 8/13: No Milford-Dart tunnel; DOC restructure; Conservation Boards; support for 1080; diversion of DOC’s resources away from protecting biodiversity; etc.
    - *Federated Mountain Clubs of NZ, Box 1604, WN 6140. [admin@fmc.org.nz](mailto:admin@fmc.org.nz)*
  14. **Kererū.** 6/13: enhanced partnership with Wellington City Council; Arbor Day planting; 20 June storm damage; etc.
    - *Zealandia: Karori Sanctuary, Box 9267, WN. [info@visitzealandia.com](mailto:info@visitzealandia.com) [www.visitzealandia.com/events](http://www.visitzealandia.com/events)*
  15. **Friends of Wellington Botanic Garden.** 6/13: draft 10-year management plan workshop; John Buchanan, designer of WN Botanic Garden; etc.
    - *FoWBG, Box 28 065, WN 6150. [www.friendswb.org.nz](http://www.friendswb.org.nz)*
  16. **Gorge Gazette.** 8/13: 20 June storm damage; rabbits; planting, incl. bush rice grass; natural regeneration; weed control methods; rats; etc.
    - *[www.trelissickpark.org.nz](http://www.trelissickpark.org.nz)*
  17. **Friends of Baring Head.** 6/13: weeding; planting; fencing; seed collection; small-mammal monitoring; etc.
    - *[www.baringhead.org.nz](http://www.baringhead.org.nz) [info@baringhead.org.nz](mailto:info@baringhead.org.nz)*
  18. **Friends of Mana Island.** 9/13: DOC’s review – impacts; etc.
    - *FoMI, Box 54 1011, Mana, Porirua 5247.*

19. **Nga Uruora-Kāpiti Project Inc.** 7/13: Reorganisation; weed control; planting; nursery; etc.

[www.kapitibush.org.nz](http://www.kapitibush.org.nz)

20. **Friends of Maara Roa.** 9-11/13: planting; nursery; etc.

• [www.MaaraRoa.org.nz](http://www.MaaraRoa.org.nz)

21. **Whareroa Guardians Community Trust.** 8/13: planting plans; etc.

• [whareroaguardsians@gmail.com](mailto:whareroaguardsians@gmail.com)

22. **The Tararua Trumper.** 9/13: *Passiflora tetrandra*; etc.

• [www.ttc.org.nz](http://www.ttc.org.nz)

23. **Morgan Foundation.** Kohekohe flowering; etc.

• <http://halo.org.nz>

24. **Key to filmy ferns in the Nelson region; list of all filmy ferns in NZ.** Shannel Courtney.

• [Cathy.jones@xtra.co.nz](mailto:Cathy.jones@xtra.co.nz)

25a. ***A Botanist's Notebook.*** Eric Godley. A collection of 70 botanical essays by one of NZ's leading botanists.

25b. ***Wild Plants of Mount Cook National Park.*** Hugh Wilson. Field guide to plants in the Mount Cook National Park area of NZ.

25c. ***Small-leaved Shrubs of New Zealand.*** Hugh Wilson & Tim Galloway. Illustrated field guide to small-leaved shrubs in NZ.

25d. ***Field Guide: Stewart Island Plants.*** Hugh Wilson. Illustrated field guide to the plants of Stewart Island, NZ.

25e. ***Wildflower City – Wellington NZ.*** Photographs by Alan Knowles; Text by Colin Webb. A photographic essay of the wildflowers that bloom on the hillsides and roadsides of the Wellington region, accompanied by an authoritative text.

25f. ***Seeds of NZ gymnosperms & dicotyledons.*** Colin J. Webb & Margaret J. A. Simpson. This guide includes more than 1750 illustrations, representing all the seed types in these plant groups, as well as descriptions and keys to aid identification.

Manuka Press, PO Box 245, Cromwell 9342, Central Otago.

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• [About Manuka Press and Terms & Conditions](#)

26. **2014 calendar.** Photographs feature the monarch butterfly, & rarely seen butterflies & moths. \$25.00 each, including A4 envelope. If paying by internet banking into MBNZT's bank account Kiwibank 38-9009-0654693-00, please e-mail [treasurer@monarch.org.nz](mailto:treasurer@monarch.org.nz) giving the postal address to which the calendars should be sent. Or order by sending your payment to:

• *Moths & Butterflies of NZ Trust, Box 44100, Pt Chevalier, AK 1246*

## **SUBMISSIONS CALLED FOR**

• **25 October. Baring Head – Ōrua-pouanui Biodiversity Area Plan – draft.**

*Robyn Smith, Greater Wellington Regional Council, Box 11 646, WN 6142, [robyn.smith@gw.govt.nz](mailto:robyn.smith@gw.govt.nz)*

• **25 October. Water Sensitive Urban Design Guide.** Contact: Nicci Wood, 499 4444.

*WSUD, Our Living City, Freepost, Wellington City Council, Box 2199, WN. or [www.Wellington.govt.nz](http://www.Wellington.govt.nz), or [policy.submission@wcc.govt.nz](mailto:policy.submission@wcc.govt.nz)*

## **SUBMISSIONS MADE**

### **Our Capital Spaces**

*Our Capital Spaces* is a 10-year plan for managing Wellington's open spaces and recreation activities. We supported Council's commitment to continue to expand Council's pest management programme, and to review the Biodiversity Strategy and Action Plan 2007. We encouraged Council to include Wellington's coasts and harbours in the plan, and early indications are that they may do so.

We also stressed the importance of doing some serious planning for the 'Two Million Trees' initiative, so that Berhampore Nursery can have the right mix of trees ready when needed. Planting and caring for 2,000,000 new trees by the year 2020 will be a challenge for Council and community groups.

### **Opportunities for the management of the Botanic Garden Cluster**

Wellington City Council staff sought our initial thoughts as they start preparing a single management plan to cover Otari-Wilton's Bush, the Botanic Garden, Bolton Street Memorial Park and Truby King Park. We commented only on Otari, and suggested:

- expanding the area within Otari where collections can be displayed and interpreted for visitors
- upgrading the specialist nursery facilities
- improving the facilities, collections and resources to support education visits
- maintaining the Druce and Dench collections
- incorporating some achievable proposals from the Landscape Development Plan
- summarising the current state of the Collections to record progress since the Collections Review 2007
- exploring opportunities associated with storm damage to the fernery
- hosting professional development opportunities for staff from other organisations with roles in plant conservation
- establishing a specialist botanical reference library.

We also mentioned our concern that the Otari community was being asked to support another planning process when so many aspects of the previous plans had not been implemented. We also fear that having a single plan for the four gardens may generate a need for further garden-specific plans.

### **Baring Head Ōrua-pouanui**

Greater Wellington Regional (GWRC) has begun to prepare Biodiversity Area Plans (BAPs) for areas with high biodiversity value. These plans will describe each area's values and threats, and the options for biodiversity management. They will also outline a 10-year work programme, and the level of resources required to maximise each area's biodiversity benefits.

Robyn Smith, Biodiversity Coordinator, GWRC, asked for our comments on an early draft of the BAP for Baring Head Ōrua-pouanui. We have a particular interest in this area as we wrote letters encouraging GWRC, DOC and Hutt City Council to purchase 270 ha at Baring Head when the previous owners put it on the market in 2010.

The Baring Head BAP is part of a hierarchical planning system that started when GWRC developed a Parks Network Strategy and Plan which brought the individual management plans for all the regional parks into one document. We've suggested that Baring Head's BAP should indicate how the objectives and policies for ecosystems and biodiversity in the Parks Network Plan will be applied at Baring Head.

Benefits we see in having the Baring Head BAP include establishing clear objectives and projects for the next 10 years, so that all parties can focus on implementation. Clarifying approaches to "restoration" for each area and ecosystem at Baring Head will be one of the challenges in finalising the BAP.

We also see these plans as an opportunity to record the best possible description of the area's current flora, and what has been lost in recent years.

### Concession for widening road on Denniston Plateau

Buller Coal Ltd (BCL) has applied to DOC for a 10-year concession to widen Whareatea Road on the Denniston Plateau, and operate heavy coal-hauling trucks on the road.

We lodged a submission on BCL's application because we considered that the Minister, or the delegated officer, should know more about the plans for the rehabilitating roadside vegetation before making the decision. DOC proposes to seek a Revegetation and Weed Management Plan from BCL, as a Special Condition, if the concession is granted.

Our submission acknowledged that BCL has reduced the adverse effects of widening the road by remaining within areas that were disturbed when it was built in the early 1900s.

We were disappointed that rehabilitation appeared to be focused on revegetation, instead of pursuing the more ambitious goal of replicating the natural vegetation beyond the current disturbed areas.

We commended DOC's cautious approach to sowing browntop, *Agrostis capillaris*, to reduce erosion and sedimentation, and agreed that weed-control programmes would be required for much longer than the one year suggested by BCL.

We agreed that eco-sourced material should be used preferentially, but wondered about its availability, for example, would BCL be able to obtain suitable quantities of eco-sourced mānuka slash in seed?

We proposed direct vegetation transfer of key plants that will be destroyed by the bulldozers, e.g. yellow silver pine x pygmy pine, *Pseudopanax linearis*, and *Chionochloa juncea*.

We recommended ecologically-safe disposal of the contents of sediment traps, given that the seeds of the weed, *Juncus squarrosus*, can remain viable for up to 50 years.

We wondered about the potential for hydroseeding to result in atypical species compositions of lichens, mosses and grasses along the roadside.

We also encouraged DOC to be very clear about the outcomes it wants to achieve in the longer term. More people are now aware of the special values of the Denniston Plateau, and when mining ceases, visitors are likely to want to drive along Whareatea Road to see those values and how the mining operations have impacted on them. Under this scenario, the nature, diversity and health of the future roadside vegetation becomes an important consideration.

*Bev Abbott, Submissions Coordinator*

### 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*

### Subscription invoices

For those members who have not already paid their subscriptions, invoices are included with this newsletter.

### Subscriptions for the year ended 30 June 2014

Subscriptions for the year ended June 2014 are now due. The yellow invoice is included with the hard-copy newsletter, and will be posted to members who get their newsletter by e-mail.

The Committee has agreed that subscription rates will remain at the same level as for the previous financial year. If you feel you can afford to forgo the rebate, the Society would appreciate it. The subscription for the year ended 30 June 2014 is:

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

(Reducible by \$5 if paid before 30 November 2013)

*Lea Robertson, Treasurer*

**DOC Wellington  
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Department of  
Conservation  
*Te Papa Atawhai*

## 2013/14 committee

At the 74th Annual General Meeting, held on 19 August 2013, the following were elected:

<b>President</b>	Richard Herbert	232 6828
<b>Vice-Presidents</b>	Chris Moore	479 3924
	Eleanor Burton	479 0497
<b>Secretary</b>	Barbara Clark	233 8202
<b>Treasurer</b>	Lea Robertson	473 8211
<b>Auditor</b>	Peter Beveridge	237 8777
<b>Committee</b>	Frances Forsyth	384 8891
	Chris Horne	475 7025
	Mick Parsons	972 1148
	Sunita Singh	387 9955
	Carol West	37 3396
<b>Submissions</b>		
<b>coordinator</b>	Bev Abbott	475 8468
<b>Bulletin Editor</b>	Leon Perrie	381 7261 (w)

## President's Report to the 74th Annual General Meeting of the Wellington Botanical Society

### Highlights

- A fabulous summer trip to Arthur's Pass National Park, based at the Outdoor Education Centre, with visits to, and support from, the local DOC visitor centre.
- The 2012 AP Druce Memorial Lecture given by Brian Rance, DOC, Southland Conservancy botanist. The title of his talk was "A botanical tour of (parts of) Southland".

### Special thanks

My first year as president has flown by, and it has been tremendous sharing in the knowledge and experiences of botany with many members with much more experience than I have. I am grateful to all members who assist in the running of BotSoc's programmes and activities that we are together involved with.

### Membership

There was a slight decrease in membership over the year. It now comprises 121 Ordinary Members, 41 Country Members, 61 Group Members, 38 Life Members, and 3 Student Members. Thus the total membership is 264, down from 275 last year.

During the year two members died. One was long-time life member, Edward (Ted) Willis Williams, the other was Dr M J Bycroft. The four resignations were offset by the acquisition of six new members. Thirteen non-paying members have been struck off during the year to June 2013.

### Trips

The main field trip of the year was our summer-camp excursion to Arthur's Pass. We stayed at the comfortable Arthur's Pass Outdoor Education Centre (APOEC), in Arthur's Pass village. We experienced the full range of

weather that Arthur's Pass can bring, from local flooding to brilliant mountain-sunshine days. A highlight was the closeness of the DOC visitor centre, and the series of summer-programme lectures that we were able to share in. A full report is in the June 2013 newsletter.

Around the Greater Wellington area we made eleven field trips. As with all our field trips, species lists were prepared of the native and exotic vegetation seen. These lists, an invaluable resource in tracking the health of local ecosystems, are lodged with the private owner, or land-managing agency, and the NZ Plant Conservation Network. Two workbees were held at Te Marua Bush. The Society works in partnership with the Greater Wellington Regional Council, and Upper Hutt Forest and Bird, to tend this forest remnant in Kaitoke Regional Park.

A detailed list of the trips held during the year is shown elsewhere - an average of seventeen members attended each of the local field trips and work bees. This continues the upward trend, and is up from last year's average of sixteen.

### Meetings

Ten meetings were held during the year with an average attendance of thirty-eight, similar to last year. The best-attended meeting was that in March, when Barry Dent and Peter Gaze led us on a story of discovery and restoration of NZ Fauna Recovery Trust's Puangiangi Island, Marlborough Sounds.

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

### Communications

- Newsletter: Three newsletters were produced during the year; one each in September 2012, December 2012, and June 2013. Thanks to Chris Horne for the many tasks he is involved in with preparation of the newsletters, and to Jeremy Rolfe for formatting them and finalising their production. These publications provide a fantastic wealth of information for members, and a record of the society's activities.
- The web site at [www.wellingtonbotsoc.org.nz](http://www.wellingtonbotsoc.org.nz) continues to be the public face of the Society, and a number of enquiries come through this avenue.
- Bulletin No. 54 was distributed in late 2012, thanks to the editorship of Leon Perrie. The next Bulletin is planned to be published 1Q 2014. The Bulletin is published occasionally, not annually.

### Community outreach

- The Society provided judges for last year's NIWA Science and Technology Fair.
- Our newsletters were distributed not only to members, but to related organisations, libraries, and Citizen's Advice Bureaux.
- Our field trips, which are open to the public, are advertised in the Wellington Glean Report.
- We participated with our BotSoc display panel at the annual Otari-Wilton's Bush Open Day, the Berhampore Nursery Open Day, and the Wellington Home and Garden Show.

### Submissions

The Society lodged several submissions during the year to encourage decision-makers to take more or different steps

### 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:

Lea Robertson, WBS, PO Box 10 412, WN.



to care for NZ's plants and ecosystems. The most substantial submissions were on the Department of Conservation's Draft Conservation Management Strategy for Northland 2014-2024, and Wellington City Council's draft Town Belt Management Plan.

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

## Awards

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

- Jubilee Award for 2012 was presented to Carlos Lehnebach for research on orchid restoration techniques. As Carlos requested less than the full sum available (\$2600), an additional award of \$370 was also made to Wynn Udall for research on mycorrhizae required for effective restoration of forest in a pasture environment.
- The 2012 Arnold and Ruth Dench New Zealand Botanical Award made funding available to two applications: Jessie Prebble, for research on *Myosotis*, and Jonathan Frericks, for research on orchid restoration techniques
- VUW School of Biological Sciences -Student Field Grants:
  - Kate Calcott. \$260. Betalains production within vegetative plant tissues.
  - Jonathan Frericks. \$500. Specificity of the orchid – mycorrhiza mutualism in a selected number of NZ orchid species.
  - Amanda Taylor. \$500. How arboreal plants partition space.
  - Suzanne Krejcek. \$400. Direct and indirect competition of introduced and native species in coastal areas of New Zealand.
  - Aprille Gillon. \$150. Ecological restoration of the Wairio wetlands in the Wairarapa. Evaluating different planting techniques for restoration.
- Tom Moss Student Award in Bryology: Lars Ludwig, a PhD student at Otago University.
- 2012 NIWA Science Fair Prize: Ciaran Sim, an 11-year-old pupil at Wellesley College. His entry was entitled "Plants vs Bacteria" and tested extracts of a sample of NZ plants to see if they can kill bacteria, or slow their growth.
- The newly-inaugurated Wellington Botanical Society photo competition overall winner was past-president Chris Moore.

We also congratulate Nelson BotSoc president, Cathy Jones, for being awarded the 2012 H H Allan Mere award; Dr Ralph Allen, professional plant ecologist, Landcare Research, Dunedin, for receiving the 2012 Loder Cup award; and Audrey Eagle, Dunedin-based botanical artist, and past BotSoc member, for her award of an Honorary Doctor of Science, University of Otago.

Congratulations are also extended to Sue Millar, a member of Upper Hutt branch of Forest & Bird, and of BotSoc, and co-organiser of our Te Marua Bush workbees for many years,

who has recently been honoured with a Forest and Bird Old Blue award for her years of voluntary service to conservation.

## The committee

The committee met bi-monthly during the past year, and as well as the committee business, enjoyed the fellowship of members' homes. Special thanks go to Barbara Clark, our secretary, and Frances Forsyth, for keeping us all up to date with the minutes and correspondence. Thanks also to Rodney Lewington, our Treasurer, for keeping our finances in order. Rodney Lewington is stepping down from his role as treasurer for the society after many years' service to the committee, and will be dearly missed.

Sunita Singh has continued a great job in organising our guest-speaker and field-trip programmes.

## Other acknowledgements

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

- Jeremy Rolfe for formatting the newsletter and bulletin.
- Leon Perrie for editorship of the bulletin, and others who are involved in preparation and distribution of the newsletter and bulletin.
- Julia White for dealing with enquiries received via the web site.
- Barbara and Kevin Clark for the barbecue for the February committee meeting. It's the year's highlight for the committee meetings.
- Chris Moore and Sheelagh Leary for a superbly-run summer trip to Arthur's Pass National Park.
- All those members who helped raise funds for the Society by donating plants for sale, or from the sale of cards, or books for auction.
- All our guest speakers and the members who made Plant of the Month presentations.

Thank you

*Richard Herbert, President*

## Field trips

Date	Locations	Attendance
1.9.12	Horoeka St Reserve, Stokes Valley, Lower Hutt.	22
6.10.12	Caribbean Drive Reserve, Grenada North.	9
3.11.12	Practical introduction to the electronic keys to the NZ flora.	16
17.11.12	Te Marua Bush workbee, Upper Hutt.	13
1.12.12:	Te Rama QEII Open Space Covenant, Waikanae.	15
29.12.12 – 7.1.13	Arthur's Pass National Park.	37
2.2.13	Wainuiomata River, west branch.	15
2.3.13	Cannon Point Walkway, Upper Hutt.	9
29–31.3.13	Rangitikei & Foxton areas, Manawatu.	16
4.5.13	Taita Scientific Reserve, Lower Hutt.	13
18.5.13	Te Marua Bush workbee, Upper Hutt.	7
8.6.13	Riverstone Terrace Reserves, Upper Hutt.	20

6.7.13	Rata Street Loop Walk, Naenae, Lower Hutt.	8
3.8.13	Oruaiti Reserve, Kau Bay, Shelly Bay.	11
<b>TOTAL</b>		<b>211</b>

### Plant of the month

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

Date	Presenter	Topic
17.9.12	Frances Forsyth	<i>Coprosma propinqua</i> agg.
15.10.12	Carol West	<i>Euphorbia glauca</i> .
19.11.12	Barbara Mitcalfe	<i>Meliclytus lanceolatus</i> , <i>M. ramiflorus</i> agg., <i>M. crassifolius</i> , <i>M. obovatus</i> agg., <i>M. micranthus</i> , <i>M. novae-zelandiae</i> agg.
18.3.13	Leon Perrie	Gleicheniaceae: <i>Gleichenia inclusisora</i> , <i>Sticherus cunninghamii</i> , <i>S. flabellatus</i> , <i>S. tener</i> , <i>S. urceolatus</i> .
15.4.13	Bev Abbott	<i>Pennantia baylisiana</i> .
20.5.13	Barbara Mitcalfe	<i>Tecomanthe speciosa</i> .
17.6.13	Chris Horne	<i>Pittosporum cornifolium</i> .
15.7.13	Carol West	<i>Aristolotelia serrata</i> .

### Evening meetings

Date	Subject	Attendance
20.8.12	AGM. A botanical tour of (parts of) Southland.	49
17.9.12	Why the Denniston Plateau is worth fighting for.	34
15.10.12	Restoring coastal dune vegetation.	33
19.11.12	VUW students' presentations.	27
18.2.13	NZ spider orchids; pollination studies.	32
18.3.13	Puangiangi Island, Marlborough Sounds.	59
15.4.13	The mushrooms of NZ.	40
20.5.13	Members' evening; book auction.	31
17.6.13	Mistletoes of the Wairarapa, QEII Trust & rare plant introductions.	36
15.7.13	A social history of the fern in NZ.	44
<b>TOTAL</b>		<b>385</b>

### Wellington Botanical Society Inc. Income and Expenditure for the Year ended 30 June 2013 General Account

2012	Expenditure	2013	2012	Income	2013
1,772	Printing and Stationery	993	2,555	Ordinary subscription	3,155
1,606	Post and telephone	518	705	Country subscription	770
	Web site costs	205	20	Student subscription	30
809	Meeting and speakers' expenses	1,046	1,318	Group subscription	979
250	Sundry expenses	51	210	Subscriptions in arrears received	0
60	Subscriptions to other organisations	340	4,808	Total Subscriptions	4,934
	Members photo competition prize	200	768	Interest on investment	1,955
34	Depreciation on equipment	0	3	Miscellaneous income	
960	Transfer to Student Award Fund	960			
	Transfer to bulletin account	4,546			
512	Purchase costs Tony Druce Trip Book	219	499	Sale of publications	272
75	Surplus on General Account for the year	-1,916			
<b>\$6,078</b>		<b>\$7,160</b>	<b>\$6,078</b>		<b>\$7,160</b>

### Jubilee Award Fund

2012	Expenditure	2013	2012	Income	2013
			59,523	Opening balance	60,662
150	Science Fair Award	150	915	Donations	1,542
			432	Proceeds of book sales	726
2,200	Jubilee Award	2,600	217	Plant sales	91
			55	Card sales (net of cost)	43
60,662	Closing balance	62,862	1,870	Interest on Investment	2,549
<b>\$63,012</b>		<b>\$65,612</b>	<b>\$63,012</b>		<b>\$65,612</b>

### Tom Moss Student Award in Bryology

2012	Expenditure	2013	2012	Income	2013
			8,747	Opening balance	8,660
400	Student Award	400	50	Donations	0
8,660	Closing balance	8,617	263	Interest on Investment	357
<b>\$9,060</b>		<b>\$9,017</b>	<b>\$9,060</b>		<b>\$9,017</b>

### Arnold and Ruth Dench New Zealand Botanical Award

2012	Expenditure	2013	2012	Income	2013
1,000	Award	1,200		Opening balance	0
	Closing balance	0	1,000	Donations	1,200
<b>\$1,000</b>		<b>\$1,200</b>	<b>\$1,000</b>		<b>\$1,200</b>

**Jonh Child Workshop Contingency Fund**

2012	Expenditure	2013	2012	Income	2013
				Opening balance	4,126
			4,000	Funds received	
4,126	Closing balance	4,298	126	Interest to date	171
<b>4,126</b>		<b>4,298</b>	<b>4,126</b>		<b>4,298</b>

**Student Field Grant**

2012	Expenditure	2013	2012	Income	2013
			9,464	Opening balance	8,998
1,714	Grants to students	1,810	288	Interest on investment	306
8,998	Closing balance	8,454	960	Transfer from General Account	960
<b>\$10,712</b>		<b>\$10,264</b>	<b>\$10,712</b>		<b>\$10,264</b>

**Provision for Bulletin**

2012	Expenditure	2013	2012	Income	2013
4,462	Printing Bulletin	4,462	4,596	Opening Balance	273
	Distribution costs	357	138	Sale of bulletins	20
273	Closing balance	20	0	Transfer from General Account	4,546
<b>4,735</b>		<b>4,839</b>	<b>4,735</b>		<b>4,839</b>

**Balance Sheet as at 30 June 2012**

2012	Liabilities	2013	2012	Assets	2013
2,010	Life Membership Fund	2,010	694	BNZ Current Account	1,833
			50	plus deposits not credited at year end	
60,662	Jubilee Award Fund	62,862		less Unpresented cheques	-405
8,660	Tom Moss Student Award in Bryology	8,617	10	Cash held	10
8,998	Student Field Grant Fund	8,454	3,177	BNZ Business on-call account	2,056
4,126	John Child Workshop Contingency Fund	4,298	3,931	Bank Funds on current account	3,495
0	Arnold and Ruth Dench NZ Botanical Award	0			
273	Provision for Bulletins	20	20	Fax machines less depreciation	20
			50	Display unit less depreciation	50
			30	Projector	30
			16	Stock of Bulletins	16
			64	Stock of Tony Druce Trip Books	109
125	Sundry creditors		24	Camping equipment	24
			657	Stock of postage-paid envelopes	0
			68	Stocks of cards	117
44,990	Accumulated fund as at 30 June 2012			Investment Pool	
	Less loss for the year	-1,916	708	Tower Mortgage Plus Fund	0
	Less loss on investment	-243	79,147	BNZ Finance	80,101
	Accumulated fund at 30 June 2013	42,830	34,628	Westpac Term Investment	34,628
			10,500	Kiwibank	10,500
<b>\$129,843</b>		<b>\$129,090</b>	<b>\$129,843</b>		<b>\$129,090</b>

Note that the Society has a No. 2 Current Account used for handling moneys for field trips. At 30 June 2013 this had a credit of \$242  
This account is not included above and is not subject to audit.

I have examined the accounting records of the Wellington Botanical Society Inc. and have received all the explanations requested. I believe the accounts and balance sheet to be a true and fair record of the Society's operation and its financial position at the close of the financial year.

Peter Beveridge  
Auditor  
Date 15 August 2013

## Student Grants

BotSoc received four applications for student grants, all for travel expenses for study purposes. Grants were awarded as follows:

- **Thomas Bell.** Studying colour variation in *Disphyma* and how it relates to its ability to deal with stress. \$115.00.
- **Maren Preuss.** Studying red algae parasites. Hopes to describe two new species and possibly more. \$500.00.
- **Amanda Taylor.** Studying epiphytes and whether they actively select for favourable sites in the canopy (e.g. sunnier side, more sheltered or damper parts of the canopy) and how this is related to epiphyte type (e.g. hemiparasite, epiphyte) \$600.00.

- **Charlie Clark.** Studying how *Senecio glastifolius* spreads and how this is related to evolution within the population. \$600.00.

*Eleanor Burton, Vice-president*

## “Ratanui” purchased

Hutt City Council (HCC) has approved funding of \$89,000 towards the purchase of “Ratanui” from the NZ Transport Agency. This will help DOC to purchase the land, once owned by Sir James Hector. HCC will manage the site in conjunction with Percy Scenic Reserve, with which it is contiguous.

*Kelly Crandle  
Reserves Planner, Hutt City Council*

## Jubilee Award 2013 – 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](mailto:bj_clark@xtra.co.nz), by 30 October 2013.

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 2013.

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 alpinists, 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 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 Inc., PO Box 10 412, Wellington 6143, or by e-mail to [bj\\_clark@xtra.co.nz](mailto:bj_clark@xtra.co.nz), by 30 October 2013

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 2013.

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.

*Lea Robertson, Treasurer*

## Otari-Wilton's Bush report

We are enjoying the beautiful weather here at Otari. Surely there is no finer place to be in Wellington. The 20 June storm is a distant memory. The damage here was dramatic, the saddest loss being a large tawa in the fernery. It was all hands on deck to clear the debris, and remove fallen trees from throughout the collections, but after some hard graft, we are back to business as usual. So that means preparing for Otari Open Day 2013 on 14 September. The plants are looking good for the sale. Most have been propagated from Otari's collections. So come along and buy some interesting plants for your garden. Otari-Wilton's Bush Trust will run a food stall, and sell their wares. There will be botanical walking tours during the day.

Jonathan Frericks and Carlos Lehnebach will talk about Johnno's orchid experiment at Otari. The study is with *Thelymitra* sp. and *Microtis* sp. The results of his work will help us to understand more about orchid-fungus symbiosis, and potentially increase the success of growing native orchids from seed. What a suitable topic for our conclusion of Conservation Week.

The day will also be the beginning of the 2013 Otari photography competition. The standard was very high last year, and we very much enjoyed the plant portrait category. I'm sure that BotSoc has a wealth of keen photographers who will help raise the standard again this year.

At Otari over the last two years we have focused on cultivating rare and uncommon plants of the Wellington region for re-introduction. We are having much success with cuttings of *Brachyglottis kirkii*, taken from various locations including Wainuiomata and the Akatarawas. Our aim is to grow them on here, and then harvest an abundance of seed. Next week, David Bidgood and I will assist Chris Hopkins from Friends of Baring Head to collect uncommon species from the south Wellington coast. Our main aim is to grow on *Muehlenbeckia astonii* to harvest seed, and secure the future of this threatened local species. *Coprosma virescens* and *Clematis afoliata* are also on our list of uncommon plants around Baring Head.

Finally, a fine *Pterostylis* sp., donated by Arnold Dench, has flowered here recently. But what is it? Arnold had various native orchids and this one turns out to be *Pterostylis curta*. It is endemic to New Caledonia and south-eastern Australia. What a wonderful orchid—where on earth did he get it from?

We will display various orchids that are in flower from his collection on Open Day, and Carlos Lehnebach can tell you all about them. See you all on 14 September.



*Pterostylis curta* from the collection of the late Arnold Dench.

*Finn Michalak  
Collection Curator*

*Otari Native Botanic Garden and Wilton's Bush Reserve  
160 Wilton Rd, Wilton, Wellington. Ph 04 475 3245*

## Documenting great trees

The following report is derived from the August issue of Nelson Botanical Society's newsletter:

Brad Cadwallader, a consulting arborist, introduced us to two entities new to many of us: The NZ Tree Register and the NZ Notable Trees Trust (NZNTT) – the former being a project of the latter. He set the scene by relating the history of our 'fantastic trees' in the literature, starting with Cook and Banks in 1769. The serious measurement and documentation of our great trees began in the 1940s (Dr H.H. Allan), and Burstall's detailed reports (1970–74) of trees he visited throughout our country are still quoted, although they were unpublished. Burstall did, however, publish *Great Trees of NZ* in 1984. It was during the '70s and '80s that many of the exotic trees planted in settlement times reached great age and huge size. They were also under threat, and still are, from landuse practices.

Perhaps in response to this threat, in 1978, the Royal NZ Institute of Horticulture established the Notable Trees Scheme, to encourage councils to protect their trees.

Activity on this front faded, unfortunately, and it wasn't until 2008 that the NZNTT was revived and the on-line database form of the register was launched in 2009. Thanks to this register, tree records will now be centralised, data gathering will be streamlined and consistent, and the information will be freely available ([www.notabletrees.org.nz](http://www.notabletrees.org.nz)). You can use the web site to search for notable trees by species, genus, locality or specific tree (each tree in the register is assigned a number). You can add information to the web site about trees in your area, either in the form of observations, or using the measurement guidelines given. The register is used by a wide range of people and organisations, from government agencies (local to national), to consulting arborists, tourists, historians, herbaria staff, researchers and other web sites (e.g., Nelson City Council's web site has links to it).

We were then treated to a tour of some of our country's truly magnificent trees, indigenous and introduced, and finished with some of our local treasures: the Richmond mountain ash, the Cable Bay matai, the Pelorus Bridge tōtara, the Bishopdale kahikatea, and the exotics of Tōtaranui. Thank you Brad for a clear, easy to follow and nicely illustrated talk—it was very motivating too.

*Sue Hallas, Nelson Botanical Society*

## Kauri dieback: action stations

The following report is adapted from Cath Wallace's article in the August issue of *ecolink*, published by ECO, Environment and Conservation Organisations of NZ Inc., of which BotSoc is a member body.

It takes only a speck of infected soil to spread kauri dieback, so we all must take precautions to stop its spread, including when visiting planted kauri in Otari-Wilton's Bush, Wellington Botanic Garden, and elsewhere in urban areas.

Kauri forests in Northland, Great Barrier Island and the Waitakere Range are already badly infected. Even where die-back is not apparent, as on the Coromandel, it may yet strike.

The infection is *Phytophthora* taxon Agathis, a phytophthora, a microorganism that is not a bacterium, fungus or virus. It is spread by soil, not the air. It infects kauri roots via the soil. Kauri roots come up to the surface, so walking on, or scuffing, the soil with infected boots, walking poles or tent pegs can readily damage kauri roots directly, and also transfer the infection.

We BotSocers are potential vectors for moving the microorganism from one place and forest to another, as are people who move plants and plant materials around. One of the sources of the spread of the organism in Northland may have been an infected plant nursery.

The signs of infection depend on the age of the kauri tree—and at this stage it is thought that only kauri are susceptible. Small seedlings will wilt and die in three weeks. Rickers and small trees take longer to develop yellow patches and die. On trees, the first sign is often a weeping sore on the trunk which then spreads around it to become a collar of gum-weeping lesions that join up about and above the soil line of the trunk. Such trees will have areas that yellow, thin out and die; a pattern that can spread through a forest. A mature kauri can take years to die. There is no known cure, though Horner and Hough (2011) suggested

that phosphoric acid may help to contain the spread of the infection. The lack of any cure means that vigilance by all of us to prevent the spread of the infection is absolutely essential. We must make taking the recommended precautions a rule and a social norm, so others follow suit.

## Precautions to take

- Thoroughly scrub and clean vehicles, especially off-road vehicles, boots, packs, firearms, walking poles, tent pegs, dogs and anything that touches the ground, before taking these items near kauri forest, and after each visit. Steam clean vehicles thoroughly, and wash other gear thoroughly. DOC recommends Sterigene, a product used in animal-health hygiene. Use it diluted 49:1 with water. Apply it to boots, packs, tent pegs—anything that touches soil, after giving them a preliminary scrub to remove all mud, soil, clay or any other particles.
- Put the mixture in a footbath made of an opened-up plastic container, then use a stiff brush on the item to be cleaned. Ideally, water should be available, and used, before gear is taken from an infected area, at home, and at the entry point for anywhere the gear goes.

## DOC's Wellington Hawkes Bay Region protects land

### Pati Tapu Bush Scenic Reserve

This comprises 38.8564 ha, which transferred to the Crown on 17.12.2012, from Bruce & Ian McKenzie, Forest Flat Rd, Eketahuna. The forest, in two blocks, is an outstanding remnant of dense podocarp forest once common in the northern Wairarapa's Seventy-mile Bush. It is one of the 49 RAPs recommended for protection in the Eastern Wairarapa Ecological District PNAP report. The bush contains tōtara, matai, and kahikatea, with over 100 native plant species, including the rare *Dactylanthus taylori*, that lives on the forest floor. Public access is by registered easement with prior reporting at the station manager's house, since the easements pass through private land.

### Grandy Lake Forest Conservation Covenant

Grandy Lake Forest (NZ) Ltd was granted Overseas Investment Office approval in 2010 to purchase 616 ha of private land for forestry investment purposes on Cricklewood Rd, Wairoa, adjoining DOC's Tutaekuri Conservation Area. Immediately south of the CA was an area identified in the Waihua Ecological District PNAP report, known as Gaddum Road RAP. This RAP covers north and south-facing slopes in the upper catchment of the Tutaekuri River, and supports modified primary tawa forest. While tawa is the dominant canopy tree, it also contains titoki, hinau, nikau, pukatea, ngaio, kōwhai and scattered emergent matai, miro and rewarewa. Feral goats are a problem in the region.

Grandy Lake's Germany-based owners have now covenanted in perpetuity the 33 ha of this RAP, which was registered on 5.4.2012. For access for walking, nature appreciation, botanical survey, or photography, contact the Eastview Station manager's residence. Firearms are not permitted.

*David Bishop*

*SLM Advisor, Wellington Service Centre-National Office, DOC.*

## Remuremu painting

Marcia Dale's Jubilee Award painting of *Selliera radicans* is available for purchase.



*Selliera radicans* is one of NZ's small coastal plants. Māori call it remuremu, raumangu or rekoreko.

Marcia Dale prepared this painting with the assistance of a Jubilee Award from the Wellington Botanical Society in 2011. The painting was inspired by a photo taken by John Barkla in Curio Bay, Otago.

In "Remuremu", Marcia uses her botanical training, and her experience as an ecological consultant, to create a botanically accurate, yet artistically pleasing picture that captures the essence of the species.

In recent months you may have seen the painting in the foyer of the Department of Conservation head office in Wellington. The Society is now looking for a good home for the painting, and is offering it for sale by tender with a reserve price of \$700. Funds raised will go into the Jubilee Award Fund.

The painting is oil on canvas, 46 × 92 cm, on a stretcher-frame with the painting continued on the edges. You can see the picture in colour in the web site version of the newsletter, or contact Rodney Lewington to view it—[rodnejl@clear.net.nz](mailto:rodnejl@clear.net.nz), ph 04 9703142.

## Grant's Bush, Wallaceville, Upper Hutt

Grant's Bush was protected by a conservation covenant in 2012. The 1.4-ha bush is a rare example of a black beech-dominant forest canopy on the Hutt Valley floor. It hosts a significant population of *Melicytus micranthus* and *Coprosma crassifolia*, among other small-leaved shrub species in the sub-canopy. Oddly, Grant's Bush has a very Japanese theme, its greatest threat being Japanese honeysuckle *Lonicera japonica*, which is smothering the smaller shrubs at ground level and climbing into the canopy. Mature Japanese cedar trees *Cryptomeria japonica* border the bush though aren't invasive, and Japanese cherry *Prunus serrulata* is scattered throughout and seeding. Greater Wellington Regional Council has received approval to release Japanese white admiral butterflies as a bio-control agent for Japanese honeysuckle. Discussions have begun about introducing the butterflies into a trial area inside Grant's Bush in 2014. Recently cow pats were spotted throughout the bush. AgResearch, which owns the bush, has cows in neighbouring paddocks. Efforts to keep cows out of the bush are being organised with DOC.

Nick Saville

## NIWA Wellington Science and Technology Fair

The BotSoc prize for the best project involving New Zealand plants exhibited at the NIWA Science Fair was awarded to Max Culver. Max is a year 7 pupil at Wellington South Intermediate School. His project, *Rongoa Māori - The anti-fungal properties of horopito*, compared fungicide prepared from horopito with the effectiveness of the standard lime-sulphur spray.

His display demonstrated an appreciation of scientific method, and thorough research before setting up his hypothesis, relevant experimental design and good execution.

The result was a clear win for the horopito when tested on the mould that grows on lemons.

If you want to try this for yourself, the recipe requires 15 leaves of *Pseudowintera colorata*. Bruise and steep them in about 25 ml of hot (not boiling water) for 15 minutes. When cool, spray the fluid on your lemons. Max found this spray to be longer lasting than the lime-sulphur spray, and that it killed mould at all stages of its life cycle.

Rodney Lewington and Chris Moore, BotSoc judges

## New Conservation Park and pest-free sanctuary proposed in Hauraki Gulf

A new Conservation Park on Great Barrier Island, and a pest eradication programme on Rakitū Island, in Hauraki Gulf Marine Park, have been proposed by Conservation Minister Dr Nick Smith, and Auckland Central MP Nikki Kaye.

Nikki Kaye says Great Barrier Island / Aotea is a natural treasure deserving a higher conservation status than stewardship land. "A new Conservation Park on Great Barrier Island would be a great asset for Auckland, and would help build the island's recreation and tourism potential. I propose that the 15,000 ha of public conservation land on the island, currently stewardship land, be designated a new Conservation Park. This is c. 55% of the island and is on the north and east sides. The legal effect of this change would be greater protection for the island's flora and fauna, and increased emphasis on recreation. It would be of similar size to the Hunua and Waitakere ranges regional parks, and would be the largest DOC park in Auckland.

"The proposal for this new Conservation Park is consistent with the Parliamentary Commissioner for the Environment's recent report seeking a review of higher value stewardship land. I am instructing DOC to report on the proposal and initiate a process of consultation with local iwi and the Great Barrier and Auckland communities," Dr Smith says.

The Nature Heritage Fund will provide \$190,000 to rid 327-ha Rakitū Island of rats. The eradication programme, using brodifacoum poison, would take 2–3 years to plan and complete. "Ngāti Rehua Ngātiwai ki Aotea have kaitiaki responsibilities for Rakitū and know that removing the rats is a vital step to reviving the mauri of the island. We are looking forward to working with DOC to restore Rakitū's natural heritage, its wildlife and its forest, for everyone to enjoy," iwi trust board chair, Nicola MacDonald, says.

Source: News release by Dr Nick Smith, Minister of Conservation

## Pounawea Scenic Reserve – A Catlins community fights back

BotSoccers on the Rakiura and Catlins trip in January 2007 may remember botanising Pounawea Scenic Reserve, en route to the Catlins River estuary. Read on ...

Back in 1934, the local Catlins community, “*in the interest of the preservation of the natural beauty of Pounawea*”, formed a ‘bush committee’ to raise funds to purchase the remarkable stand of podocarp/broadleaved forest beside the Catlins River estuary. They bought it for just over £400, equivalent to \$45,647 today. As the community had hoped, the Government then contributed enough money for fencing, and on 29 April 1937, this new scenic reserve was handed over to the Government in the person of the Minister of Scenery Preservation. It was to be run by a local Scenic Board.

Fast forward to summer 2001, two of us first saw Pounawea Camping Ground, amazed at our once-in-a-lifetime opportunity to camp surrounded by magnificent, towering, podocarps, and to be woken by an unforgettable dawn chorus.

Fast forward to 2010, when the lessee of Pounawea Camping Ground in the reserve, without consent, illegally felled part of the forest, uprooting ancient trees wreathed with severed, wrist-thick lianes, to gain increased revenue from campers’ fees. What had been a beautiful forest glade now looked like a war zone, with whole trees, root plates and huge limbs strewn in piles. This extraordinary act of vandalism received a ‘slap-on-the-wrist’ response from Clutha District Council (CDC) - the lessee was fined a paltry sum, required to clear the wreckage, and plant some replacements.



Aftermath of illegal clearing of forest. Photo: Kaaren Mitcalfe.

Fast forward again to 2013, when the lessee applied to CDC for consent to enlarge his leasehold area by 40% to include the area he had cleared illegally, and to extend his lease term to 2029!

The local community responded by submitting to CDC, with dozens expressing anger at the destruction of their precious forest, purchased by stalwart Catlins forebears in the 1930s. CDC received record numbers of submissions in opposition to the application, and the deadline was extended to cope with the volume of the community’s outraged response. Forest and Bird’s South Otago branch described themselves in their submission, as “completely aghast” at the possibility of consent being granted.

I understand that the application to extend the lease area by 40%, and the lease period to 2029, will go before the full council on 26 September.

Barbara Mitcalfe.

## TRIP REPORTS

### 18 May 2013: Te Marua Bush workbee

Despite the long summer drought, the bush looked surprisingly healthy, with plenty of new growth. This was helped by the almost complete lack of cicadas emerging, so the severe damage seen most years was absent. Black maire had grown long new shoots low down and on the crowns. The plantings alongside the Pony Club paddock had thickened up to form a good windbreak for the bush. Convolvulus continues to invade the strip.

In the southern planted area, we planted eleven trees in gaps, and pruned some earlier plantings to create light wells where podocarps have been planted. We searched for weeds, and saw that recent weed control organised by Greater Wellington had been effective. We found two new weed species—climbing asparagus *Asparagus scandens*, and coastal banksia *Banksia*

*integrifolia*. The latter had presumably arrived by wind or bird from large specimens across the road.

We thank Nathan Wickens, GWRC ranger, for removing the bags of weeds and rubbish that we had collected.

**Participants:** Chris Horne, Rodney Lewington, Sue Millar (co-leader / scribe), Grant Roberts, Allan Sheppard, Glennis Sheppard (co-leader), Darea Sherratt.



*Asparagus scandens* has the potential to become a serious problem in the reserve where it could smother seedlings and understorey plants. Photo: Jeremy Rolfe.



## 8 June 2013: Moonshine–Whakatikei River

We twenty botanists/naturalists (not to be confused with naturists) travelled to the Upper Hutt section of the Hutt River valley to botanise the Riverstone Terraces bush walk. Starting near the bottom of Kirton Drive, just north of SH2's Moonshine Bridge, we soon slowed to a crawl, as we checked off plants on the list prepared during a recce. Being fairly new to BotSoc trips, I find it amusing that as soon as we start we virtually stop. A few metres along, under black beech and hard beech, we located one of the highlights, *Coprosma linariifolia*. From there we followed the gentle river terrace track through a mosaic of small-leaved shrubs including *Melicope simplex* and *Coprosma rotundifolia*, among trees such as pōkaka, hīnau, white maire and matai.

We entered forest with tawa and titoki in the canopy, and tree ferns in the understorey. Beyond here it was wet enough to host a lone pukatea and swamp maire. As we continued, some members donned protective clothing for the ensuing autopsy of the only *Lophomyrtus obcordata*, murdered, I presume, by someone trying to redirect SH2 through our

walking track. We had lunch on a grassy terrace overlooking most of Upper Hutt, maybe the last time a public group will be able to sit here, before this land is covered in housing.

After the break, we headed down to the stony river flats where the group splintered into sub-groups, making it hard to keep track of what was going on. I followed the pack on the river flats, while the sensible group stayed on the original river terrace, while others presumably headed home, unsure of where anyone was. The river-flats pack emerged back on the river terrace where there was a refreshing patch of beech forest. From there it was the final leg down to where the Whakatikei River meets the Hutt River. One of the last finds was a small *Carmichaelia odorata* on the bank of the Whakatikei. On the way back we went down a side track towards the Hutt River, walking through a rocky chasm, probably created by movement on the nearby Wellington Fault that runs near the western bank of the Hutt River. I found the geology of the terraces fascinating, walking along part of the zone in which tectonic movements have shaped the Wellington region for



*Melicope simplex*. Photo: Jeremy Rolfe.

millennia, and will continue to do so in future.

**Participants:** Barbara Clark, Rosemary Collier, Rae Collins, Laura De la Rosa, Gavin Dench, Ian Goodwin, Chris Hopkins, Chris Horne, Priscilla Isaacs, Rodney Lewington, Pat McLean, Chris Moore, Syd Moore, Mick Parsons, Leon Perrie, Grant Roberts, Nick Saville (leader / scribe), Sunita Singh, Darea Sherratt, Roy Slack.

## 7 July 2013: Rātā Street Loop, Naenae

Saturday was wet, so we ran the trip on Sunday, because there was sufficient interest.

From the entrance track at the top of Rātā St, we botanised up to the firebreak on top of the Hutt Valley's eastern hills, then retraced our steps to return via the first of two loop tracks that merge just before the exit below Wesleyhaven rest home.

The track entrances were weedy because of dumping of garden waste. Weeds at the lower entrance included montbretia, tradescantia, ivy and an assortment of planted native trees/shrubs not representative of the area. The road up to the reservoir contained fifteen species of exotic trees and shrubs, including three species of cotoneaster: *C. franchetii*, *C. glaucophyllus* and *C. lacteus*?

Above the reservoir, mature pine trees feature along the track up to the loop track turn-off to the north. Despite this, regeneration of native bush was well advanced, with two

small gullies containing mature hard beech and black beech, very large *Cyathea medullaris* / mamaku tree ferns, and *Rhopalostylis sapida* / nikau, and *Syzygium maire* / swamp maire.

Other plants of interest were: *Hebe parviflora*, *Streblus heterophyllus* / tūrepo, *Polystichum oculatum*, and the greenhood orchid *Diplodinium alobulum* on clay banks.



*Streblus heterophyllus*. Photo: Jeremy Rolfe.



*Polystichum oculatum*. Photo: Jeremy Rolfe.

We were concerned by the establishment of wilding native plant species not native to the Wellington area. We saw small-sized karaka trees surrounded by prodigious numbers of seedlings, epiphytic pōhutukawa (unc), *Pittosporum ralphii*, seedling pūriri (unc), and *Pomaderris apetala* / tainui (unc).

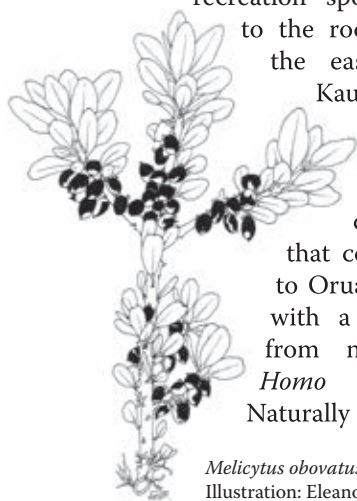
**Participants:** Chris Hopkins (leader/scribe), Chris Horne, Barbara Mitcalfe, Mick Parsons, Leon Perrie, Jeremy Rolfe, Nick Saville, Roy Slack.

### 3 August 2013: Oruaiti Reserve, Seatoun; Miramar Peninsula, north end

Miramar Peninsula had several botanical surprises for BotSoccers and representatives of the Port Nicholson Trust alike on this beautiful, calm, winter's day. The mild weather, an easterly with rare drizzle, meant we could explore the coastal cliffs and rock stacks without having to use both hands to cling on with, as is often the case on this exposed coastline. Following a 1 April 2011 BotSoc trip to Breaker Bay and Oruaiti Reserve / Point Dorset, we began with a brief excursion along the Seatoun Beach end of Oruaiti Reserve. This brought home to us how few naturally occurring plants and species exist at this popular recreation spot. Moving



BotSoccers explore a rock stack on Miramar Peninsula. Photo: Sunita Singh.



*Melicytus obovatus* agg.  
Illustration: Eleanor Burton.

to the rock stack at the east end of Kau Bay, we saw some of the species diversity that could return to Oruaiti Reserve with a little help from nature and *Homo sapiens*. Naturally occurring

*Aciphylla squarrosa*, *Melicytus obovatus* agg., *Pimelea prostrata*, *Thelymitra* sp, some battered coastal turf, and a myriad of small herbs, rushes and sedges. After lunch, we went to the north end of Shelly Bay. Here some of the less intrepid of us botanised through binoculars, and checked the bottom of the cliff, while others scaled the heights. Species diversity was higher than the previous two sites, with notable additions to our list including: *Carmichaelia australis*, *Clematis forsteri* and *Kunzea ericoides*. Exhausted, we repaired to the Roxy Cinema café to

revive. During the day we compared our finds with John Buchanan's 1872 species list for Miramar Peninsula (*Transactions and Proceedings of the Royal Society of NZ* Vol. 5). While we did not expect to find all the plants from his list at the coastal sites we visited, there were many species that we did not find.

**Participants:** Bev Abbott, Hiroshi Araya, Gavin Dench, Fenella Fenton, Frances Forsyth (co-leader / scribe), Bryan Halliday, Chris Horne, Terese McLeod, Barbara Mitcalfe, Kaira Ranganui-Love, Nick Saville, Sunita Singh (co-leader), Julia Stace.

### 7 September 2013: Wright Hill Reserve, Karori

This reserve is almost entirely in the catchment of Karori Stream, and the contiguous Burrows Avenue Reserve is entirely within it. The two reserves are managed as a unit by Wellington City Council.

In perfect conditions, we met at the end of Fitzgerald Place, South Karori, to the whirl of a kererū and the song of a tūi. The severe southerly gales of 20 June had defoliated māhoe crowns in the catchment, and the resultant leaf litter had provided plentiful mulch for the germination of seeds, and nourishment of seedlings.

The trip was planned as a circuit via Deliverance and Salvation tracks, but we travelled so slowly because we were busy listing, teaching and learning, that most of us went only most of the way up Deliverance Track, and back down again. Some members later completed the circuit back to the car park.

Not far into the walk *Adiantum raddianum* was mistaken for an indigenous maidenhair species until its garden-escape status was explained. Of particular interest was seeing several *Cyathea cunninghamii*, not common in Wellington ecosystems. Flowering tree fuchsia and *Clematis paniculata* showed that spring has arrived. Other highlights included a NZ falcon / kārearea, a leaf-veined slug, and three kākā in a rowdy chase beneath the canopy, while two kererū dived nearby. We noticed abundant seedling and some sapling pukatea, many titoki, fuchsia and ongaonga seedlings, and numerous thickets of kiekie, all fostered by WCC's and GWRC's efforts to kill goats, possums, rodents and mustelids in this Key Native Ecosystem.(KNE). Animal pest control should continue, and pest plant control should include eliminating broom, Darwin's barberry,

tutsan, wild cherry, blackberry, gorse, montbretia, and Mexican daisy.

**Participants:** Bev Abbott, Rae Collins, Laura De la Rosa; Gavin Dench, Ken Fraser, Julia Fraser, Bryan Halliday, Chris Hopkins, Chris Horne (co-leader / scribe), Priscilla Isaacs, Rodney Lewington, Barbara Mitcalfe (co-leader / scribe), Kaaren Mitcalfe, Mick Parsons, Kaira Ranganui-Love, Hugh Robertson, Lea Robertson, Sunita Singh,



*Clematis paniculata* male flowers.  
Photo: Jeremy Rolfe.

## Wellington Botanical Society Summer Trip Registration Form

Te Urewera: 17–23 January 2014 & Whirinaki Forest Park: 24–26 January 2014

Send completed form and deposit to the Society by *19 November 2013*

Names:		
Address:		
Phone:	Mobile:	E-mail:
Emergency contact: Name and relationship:		
Address of contact:		
Phone number of contact:		

### Travel and accommodation arrangements:

Arrival date: Camp Kaitawa (tick one box)	17 <sup>th</sup> <input type="checkbox"/> 18 <sup>th</sup> <input type="checkbox"/> 19 <sup>th</sup> <input type="checkbox"/> 20 <sup>th</sup> <input type="checkbox"/> 21 <sup>st</sup> <input type="checkbox"/> 22 <sup>nd</sup> <input type="checkbox"/> 23 <sup>rd</sup> <input type="checkbox"/>
Arrival date: Whirinaki Forest (tick one box)	24 <sup>th</sup> <input type="checkbox"/> 25 <sup>th</sup> <input type="checkbox"/> 26 <sup>th</sup> <input type="checkbox"/>
Departure date: Camp Kaitawa (tick one box)	18 <sup>th</sup> <input type="checkbox"/> 19 <sup>th</sup> <input type="checkbox"/> 20 <sup>th</sup> <input type="checkbox"/> 21 <sup>st</sup> <input type="checkbox"/> 22 <sup>nd</sup> <input type="checkbox"/> 23 <sup>rd</sup> <input type="checkbox"/>
Departure date: Whirinaki Forest	24 <sup>th</sup> <input type="checkbox"/> 25 <sup>th</sup> <input type="checkbox"/> 26 <sup>th</sup> <input type="checkbox"/>
Accommodation: Camp Kaitawa-all \$25/day	Dorm bunk <input type="checkbox"/> cabin-3 x sleeps 4 <input type="checkbox"/> cabin-2 x sleeps 2 <input type="checkbox"/>
Accommodation: Whirinaki-\$90/day shared.	Tent site <input type="checkbox"/> I/we will make own arrangements <input type="checkbox"/> . Cabins (3 x sleep 10) <input type="checkbox"/> Camping permitted.
Mode of travel to Camp Kaitawa Mode of travel to Whirinaki Forest (Please specify your best estimate of travel arrangements, e.g. car to Camp Kaitawa) Camp Kaitawa: If you are going by car, how many additional passengers could you take? From where to where Whirinaki Forest: If you are going by car, how many additional passengers could you take? From where to where	None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> ..... None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> .....
Day-to-day transport at Te Urewera If you can transport others, how many additional passengers could you take	Will have own car: Yes <input type="checkbox"/> No <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
Meals*: Camp Kaitawa: catered dinner \$18/day Whirinaki Forest: BotSoc self-cater*	
Do you have a current First Aid Certificate:	Yes <input type="checkbox"/> No <input type="checkbox"/>
* Camp Kaitawa: breakfast/lunch to be BotSoc self-catering; costs \$6/day. * Whirinaki Forest meals: BotSoc self-catering; \$12-15/day. * If you have <u>special dietary needs</u> , please bring your own supplements or meal substitutes, or be prepared to cook something in the kitchen which is spacious.	

Deposit payment method (please check one): \$350/person plus \$50 if you are going to Whirinaki. At the end of the trip you will be sent an invoice for the full cost less your deposit.

Cheque—Make cheque out to Wellington Botanical Society and send with the completed Registration Form to: Mick Parsons, c/o Wellington Botanical Society, PO Box 10-412, Wellington 6143.

Direct transfer—Make the deposit to the Society's account 02 0536 0017812 02 citing your name(s) in the particulars/reference sections of the payee account. Either post the Registration Form to Mick Parsons at the above address or attach it to an e-mail to: [mtparsons@paradise.net.nz](mailto:mtparsons@paradise.net.nz).

Registration form can also be download at: [www.wellingtonbotsoc.org.nz/trips\\_2013.html#Jan14](http://www.wellingtonbotsoc.org.nz/trips_2013.html#Jan14).

## Camp Kaitawa

Jane Hughes, Manager, Camp Kaitawa, House 7, Kaitawa Rd, RD5, Wairoa.

Ph: 06 837 3806, Fax: 06 837 3706

E-mail: [campkaitawa@xtra.co.nz](mailto:campkaitawa@xtra.co.nz) Web site: [www.campkaitawa.com](http://www.campkaitawa.com)

1. *Grounds.* The camp is on c. 0.6 ha of flat land beside Lake Wherowhero, c. 1.5 km from Lake Waikaremoana. There is also 4.4 ha leased for the camp, including the camp house, the north & west sides of Lake Wherowhero, & tennis courts.
2. *Accommodation.*  
**Main building:** 2 dorms, dining room, kitchen.  
**Dorms:** Each has 20 bunks with mattresses & pillows (bring pillowcases).  
**Chalets & huts:** 2, 3 or 4 beds or bunks, with mattresses & pillows (bring pillowcases) & small heater. One two-bed chalet is already booked.
3. *Camping:* Costs the same as for indoor accommodation.
4. *Bedding:* Pillows & mattresses provided. Bring own bedding.
5. *Meals:* Dinner will be catered. Lunch & breakfast will be organised by BotSoc.
6. *Shop:* Small outlets at Lake Waikaremoana Motor Camp and Tuai. Petrol available at Motor Camp. Nearest shopping centre 45 km away at Wairoa.

For further information contact: Trip leader Mick Parsons: 04 474 1142; 027 249 9663;

E-mail: [mtparsons@paradise.net.nz](mailto:mtparsons@paradise.net.nz)



# Plant Life on Banks Peninsula

by Hugh D. Wilson

## Pre-Publication Offer

Here at last is a crystallisation of what eminent botanist Hugh Wilson has found out about Banks Peninsula, after nearly a lifetime of living and working there. This is a substantial book, beautifully illustrated with hundreds of Hugh's drawings, photographs from several photographers, clear maps, and entertaining text. This book is the culmination of 30 years work, a labour of love designed to inform and delight a wider public about the richly diverse plants of Banks Peninsula. The book will be enjoyed by both interested lay people and professional botanists alike. More than an identification manual, this is an extraordinary account of the natural history of an extraordinary place.

The book is due for release in Spring 2013.

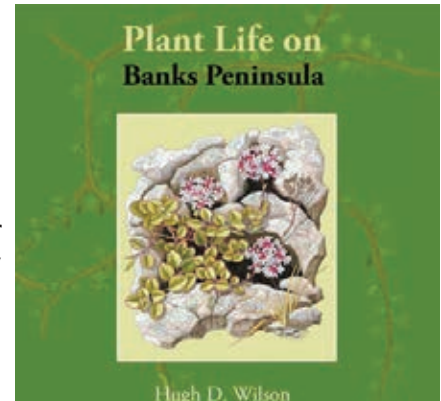
It is 420 pages in hard cover landscape format (260mm by 240mm); there are over 500 detailed drawings with over 160 in full colour; and over 60 colour photographs. RRP is \$90.00.

Manuka Press is offering this book to interested people at a special pre-publication price. All orders received and paid for by 1<sup>st</sup> of September 2013 will be supplied at only \$75 per copy (including GST and postage and packaging to NZ addresses).

- Offer extended for Wellington Botanical Society members

To order your copy(s):

- Fill in and send the form below with your cheque (made out to Manuka Press) at the special price of \$75 / copy.
- Overseas orders please contact Richard below for postage and payment options.



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# Membership application

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

I wish to join the Society

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

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 2014 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	\$.....
	<b>TOTAL</b>	<b>\$.....</b>

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

and e-mail this completed form to the Treasurer at [harlea@actrix.co.nz](mailto:harlea@actrix.co.nz)

## Authority to release your name, address and phone number to other members of the Society.

The Society holds the names and addresses of all members to use for post-outs of newsletters etc.

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

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

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

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

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

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

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