

# Wellington Botanical Society

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



# NEWSLETTER

## June 2013

Previous issue: December 2012

ISSN 1171-9982

### From the President

Thanks mostly to the high quality of books donated by Wendy Nelson from Nancy Adams' estate, the Members' Evening book auction raised over \$600 for the Jubilee Award Fund. Thank you, Wendy, and also those who participated through lively bidding and contribution to this Society cause.

The Society's inaugural photo competition winners were announced at the Members' Evening – see article in this newsletter. The committee would welcome feedback from members as to whether we should repeat this event, and how we might use the contributed photos to further BotSoc's aims.

In recognition of the Society's donation to the Forest & Bird Save the Denniston Plateau campaign, BotSoc received a 40 × 35 cm, numbered photographic print, signed by photographer Craig Potton, featuring one of the rock-formation curiosities that feature in this area. The committee would welcome bids from members interested in owning this fine print. The proceeds would be donated to the Jubilee Award Fund. (PS: Craig Potton has been made a Member of the NZ Order of Merit for services to photography and conservation).

*Richard Herbert*

### New members

We welcome the following:

Laura De la Rosa, Carlos Lehnebach.

*Rodney Lewington  
Treasurer*

### 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

Please share your botanical knowledge and observations by contributing to the Wellington Botanical Society Bulletin. We plan to publish the next issue about February 2014. Deadline for submitting draft content: 30 September 2013 (but the earlier the better). For more details and assistance, contact Leon Perrie at [leonp@tepapa.govt.nz](mailto:leonp@tepapa.govt.nz) or 381 7261.

### 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>	Rodney Lewington	970 3142	
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<b>Bulletin editor:</b>	Dr Leon Perrie	381 7261 (w)	
		Te Papa, PO Box 467, WN 6140	
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		e-mail: <a href="mailto:jchorne@paradise.net.nz">jchorne@paradise.net.nz</a>	
		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.

### 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 August 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: JUNE–OCTOBER 2013; JANUARY 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.

## Monday 17 June: Evening meeting

## Mistletoes in the Wairarapa, QE2 and rare plant reintroductions

Speaker: Trevor Thompson, QEII National Trust, Wellington - Wairarapa Regional Representative, will describe his work for the last 20-plus years with mistletoes: techniques used to plant them, new populations set up, best host trees for *Peraxilla tetrapetala*, *P. colensoi*, *Ileostylus micranthus*, *Tupeia antarctica* and *Alepis flavida*. Hear about QE2's role in this work, and the return of other rare plants to likely former sites.

## Saturday 6 July: Field trip

## Rātā Street Loop Walk, Naenae

Botanise shrublands and regenerating broadleaved forest on the eastern Hutt hills. Meet 9.30 a.m. at bus terminus at top of Rātā St. Catch 8.35 a.m. train from Wellington Station to Waterloo; transfer to no. 130 Naenae bus, 9.01 a.m. from Stop A, Knights Rd, west of station. Alight at terminus. Leader: Chris Hopkins 564 3980, deputy-leader: Chris Horne 475 7025.

## Monday 15 July: Evening meeting

## A social history of the fern in NZ

Speaker: Patrick Brownsey, Research Fellow, Te Papa, will discuss the role of the fern in the social history of NZ, and outline some of the reasons why it has achieved iconic status. From his experience as both Curator of Botany and Curator of Stamps at Te Papa, he will show how social fashions and frenzies influenced scientific understanding of NZ ferns, especially in the second half of the 19th century. Patrick will illustrate his talk with material held at Te Papa, and from his personal collection of ephemera.

## Saturday 3 August: Field trip

## Oruaiti Reserve, Seatoun; Kau Bay

Botanise two sites on Miramar Peninsula, beginning with Oruaiti Reserve, formerly Point Dorset Reserve, at the east end of Seatoun Beach. See *Melicytus crassifolius* and other divaricating shrubs, and WCC's plantings, interpretation panels, and track upgrade. Then car-pool to drive to Kau Bay to botanise a rock stack with *Aciphylla squarrosa*, interesting ferns, and a coastal cliff with *Melicytus obovatus*. Finish at a café. Meet: 9.15 a.m. corner Inglis St and Marine Pde, Seatoun. Catch no. 11 Seatoun bus 8.45 a.m. from Lambton Interchange to last stop on Dundas St. Leader: Frances Forsyth: 384 8891 / 021 072 5210; deputy-leader: Sunita Singh 387 9955.

## Monday 19 August: Evening meeting

## 1. Annual General Meeting.

## 2. Druce Memorial Lecture: The mountains of Nelson & Marlborough - a treasure trove of alpine plants

Speaker: Shannel Courtney, Technical Support Officer – Threatened Plants, DOC, Nelson. The mountains of the Nelson and Marlborough regions support a rich diversity of alpine plants. Their botanical wealth is attributed to a high geological, topographical and climatic diversity, high levels of regional endemism, and by being an overlap area for both southern and northern alpine floras. Tony Druce made many excursions into these mountains, especially those of NW Nelson and South Marlborough. Shannel will highlight the remarkable plants of these regions, the landscapes they inhabit, and Tony Druce's association with some of these species.

## Saturday 6 September: Field trip

## Wright Hill Reserve: Deliverance and Salvation tracks

Botanise regenerating broadleaved forest in the catchment of Karori Stream. See *Hoheria sexstylosa* and *Asplenium lyallii*. Co-leaders: Chris Horne 475 7025 and Barbara Mitcalfe\* 475 7149 (\*TBC). Meet 9.30 a.m., Fitzgerald Place, South Karori.

## Monday 16 September: Evening meeting

## Adapting to aquatic life

Speaker: Paul Champion, Principal Scientist – Freshwater Biosecurity, NIWA, Hamilton. NZ has relatively few aquatic plant species compared with most other countries and, unlike our terrestrial flora, there are relatively few endemic species. Paul will discuss the freshwater environment, plant adaptations to survive in this habitat, introduce our indigenous aquatic plants, then describe the pressures faced by our aquatic environment: increasing demands for freshwater; contamination by plant nutrients (eutrophication); invasive pest animals and plants, emphasising the many species of aquatic weeds that are now almost ubiquitous in our water-bodies.

## Saturday 5 October: Field trip

## Newlands reserves

Botanise reserves above the Ngauranga escarpment, e.g. Brandons Rock, Mahinahina Park. Meet at 9.30 a.m., Edgecombe St, Newlands. Leader: Frances Forsyth 384 8891; deputy-leader: TBA.

## 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, Hinau Walk, Ngamoko Track, Old Māori Trail, Tawa Walk, Lake Kaitawa Walk, Panikire Bluffs; **B** – Forest Sanctuary Track, H-tree Track, Arahaki Lagoon Track, Waitati 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:TBC. Registration form and more details in September newsletter.

## AWARDS

### 14 June. QEII National Trust Brian Molloy Scholarship grant.

Students studying full-time for a supervised doctoral research degree are invited to apply. Funding: \$30,000 p.a. for living expenses, tuition fees, student services levies; \$20,000 p.a. for research and travel costs. Tenure: three years, or until thesis is submitted.

- [www.openspace.org.nz](http://www.openspace.org.nz) and Dr Elizabeth Heeg, QEII National Trust, [ehieg@openspace.org.nz](mailto:ehieg@openspace.org.nz) 04 471 4190.

30 June. **HH Allan Mere Award**. This award is made annually to a person or persons who have made outstanding contributions to botany in NZ, in a professional or amateur capacity. Nominations may be made by regional botsocs, or by individuals.

- Information from, and nominations to: Ewen Cameron, Secretary, NZ Botanical Society, c/- Canterbury Museum, Rolleston Ave, CH 8013. [www.nzbotanicalsociety.org.nz](http://www.nzbotanicalsociety.org.nz)

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 workbee*. Meet at Information Centre, Otari-Wilton's Bush, 160 Wilton Rd.. Wilbur Dovey 499 1044.
- *13 June, 7 p.m. Do the maths*. Talk on climate change by Bill McKibben. Embassy Theatre, WN. \$20.
- *15 June, 2 p.m. Paekawakawa Reserve, Derwent St, Island Bay Planting workbee*. [paekawakawa@gmail.com](mailto:paekawakawa@gmail.com)
- *16 June & 14 July 10 a.m. – 1 p.m.* Whitireia Park Restoration Group – planting dunes at “Cable Bay”, an 8-minute walk east of Onehunga Bay along the coastal track. If those days are wet, the events will be on the following Sunday.
- *23 June, 2–4 p.m.* Otari's ferns. Walk in the Fernery, guided by Leon Perrie, Curator of Botany, Te Papa. 160 Wilton Rd, Wilton
- *24 June, 10 – 12.30 p.m.* QE Park 60th anniversary. MacKays Crossing entrance. Pōwhiri/mihi, speeches, planting, BBQ. [Mathew.walsh@gw.govt.nz](mailto:Mathew.walsh@gw.govt.nz)
- *29 June – 7 July. Garden bird survey*. For one hour sometime between those dates, count the number of birds in your garden. Obtain form at: [gardenbirdsurvey.landcareresearch.co.nz](http://gardenbirdsurvey.landcareresearch.co.nz)
- *28 July 2 – 3.30 p.m. What use are native plants?* Guided walk with Chris Moore. Otari-Wilton's Bush, 160 Wilton Rd, Wilton.
- *26 August, 2- 3.30 p.m. Otari Treasure Trail*, guided by John Dawson.

- *28 – 31 August. NIWA Wellington Science & Technology Fair*. Laby Bldg, Victoria University. BotSoc will provide judges, and a prize for the best project on native plants. *Sylvia Nichol, NIWA Special Prizes Coordinator* [sylvia.nichol@niwa.co.nz](mailto:sylvia.nichol@niwa.co.nz) [www.sciencefair.org.nz/?q=node/2](http://www.sciencefair.org.nz/?q=node/2)
- *30 August – 1 September. ECO conference and AGM*. Kauaeranga Valley Christian Camp, 304 Kauaeranga Valley Rd, Thames. Theme: “Which Way New Zealand?” Focus: ways to improve our environment and decision-making. Topics include the sea and land, marine spatial planning, mining on land and at sea, local vs national decision-making and planning; conservation, including local successes in protecting ecosystems and species; changes at DOC, etc. Good decision-making and policies will be worked on. Celebrate ECO, its members, and other community efforts. The place of the environment in a possible constitution and due process will be discussed. [eco@eco.org.nz](mailto:eco@eco.org.nz)
- *14 September. 10 a.m.–2 p.m. Otari Open Day*. Native plant sales, talks, displays, stalls, guided walks. 160 Wilton Rd, Wilton.
- *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](mailto:conference@yeptrust.org.nz)
- *20–25 October. 5th Global Botanic Gardens Congress*. Dunedin  
*Submit proposals for symposia, papers and posters at* [www.SGBGC.com](http://www.SGBGC.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)

## PUBLICATIONS

1. **New orchid key**.
  - [www.landcareresearch.co.nz/resources/identification/plants/native-orchid-key](http://www.landcareresearch.co.nz/resources/identification/plants/native-orchid-key)
2. **Mackenzie Country Agreement**.
  - [www.mackenziecountry.org.nz](http://www.mackenziecountry.org.nz)
3. **Open Space**. 84 3/13. Court case proves “indefeasibility” of covenant agreements; focus on Wairarapa (Trevor Thompson, Regional Representative); *Drosera binata* fork-leaved sundew; attracting bees; common ground-cover weeds; fencing covenants; role of kakapō in pollination of *Dactylanthus taylori* wood rose; new Chief Executive, Mike Jebson; etc.
  - QEII National Trust, Box 3341, WN 6140.  
[www.openspace.org.nz](http://www.openspace.org.nz). 04 4772 6626.

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

- 4a. **Operative Regional Policy Statement for the Wellington Region.** [www.gw.govt.nz/rps](http://www.gw.govt.nz/rps).
- 4b. **Regional Pest Management Strategy – Operational Plan Report 2011 – 2012.** Inspect at GWRC offices or [www.gw.govt.nz](http://www.gw.govt.nz).
- 4c. **GWRC's programme for implementing the National Policy Statement for Freshwater Management 2011.** Inspect at GWRC offices, or on web site.
- 4d. **Wainuiomata Recreation Area.** Brochure. 2013. Map includes: Gums Loop, Sledge Track, Tana Umaga Track, and new track to Wainuiomata Dam.
- Greater Wellington Regional Council, [parks@gw.govt.nz](mailto:parks@gw.govt.nz) [www.gw.govt.nz/parks](http://www.gw.govt.nz/parks)
- 5a. **Branch Out.** Winter edition: news re Wellington's parks, coast, hills, reserves & streams.
- 5b. **Wellington Botanic Garden – Visitor guide and map.** 2013. Brochure.
- Wellington City Council, Box 2199, WN 6140. [branchout@wcc.govt.nz](mailto:branchout@wcc.govt.nz)
- 6a. **Otari-Wilton's Bush Treasure Trail.** Brochure.
- 6b. **Fungi / Ngā Harore.** A4.
- 6c. **Job Wilton.** A4.
- The above documents were produced by Otari-Wilton's Bush Trust & Wellington City Council. Otari-Wilton's Bush, 160 Wilton Road, Wilton, WN.
7. **NZ Journal of Botany.**
- [www.royalsociety.org.nz](http://www.royalsociety.org.nz)
8. **Trilepidea.** 109 12/12: *Metrosideros robusta*; web site strategy; NZPCN awards; Dr Ralph Allen receives Loder Cup; president's report; etc. 110 1/13: web site upgrade; *Agathis australis*; Dr Peter Heenan receives *NZ Journal of Botany* prize (see article in this newsletter); NZPCN's image library expands, but more images sought; kauri voted 2012's favourite native plant; tradescantia voted 2012's worst weed; kakabeak recovery efforts; marae-based courses; meanings of plant names; etc. 111 2/13: AGM; *Olearia solandri*; conference programme; illustrated glossary of terms on web site; derivation of botanical names; phenology recording on web site; Sir Alan Mark's *Above the treeline* – review; etc. 112 3/13: Sarah Beadel, president – impacts of drought; *Melicytus crassifolius*; restoring kakabeak in the wild; explaining scientific names; > 24000 plant images on web site; NZPCN's web site forum; NZ Epiphyte Workshop; DOC's natural heritage prioritisation systems - videos; Wise Response appeal launched by Sir Alan Mark re unprecedented threats to our collective security; inaugural QEII National Trust Brian Molloy scholarship grant (see awards section in newsletter); Dr Brian Molloy's achievements; etc. 113 4/13: pygmy tree orchid *Ichthyostomum pigmaeum*; flowering and fruiting of plants in NZ; seed bank partnership; mobile version of web site; proposed endowment fund for plant conservation; 25000 images on web site; QEII National Trust scholarship – applications sought; new version of native orchid key; etc. 114 5/13: alarm at proposed changes to RMA's purpose and principles; *Metrosideros parkinsonii*; a Fiordland NPK site inaccessible to pest animals; Saddle Hill, Banks Peninsula, purchased by Nature Heritage Fund & two trusts; explaining scientific names; *Plant life on Banks Peninsula* by Hugh D Wilson; *Anenome tenuicaulis*; etc.
- NZ Plant Conservation Network, Box 16 102, WN. [events@nzpcn.org.nz](mailto:events@nzpcn.org.nz)
- 9a. **Auckland Botanical Society Journal.** Vol 67 (2) 12/12: Arthur's Pass NPK; etc.
- 9b. **Auckland Botanical Society News-Sheet.** 4/13: Beever Plant Pathogen Containment Facility, Landcare Research, Tamaki; etc.
- ABS, Box 26 391, Epsom, AK 1344. <https://sites.google.com/site/aucklandbotanicalsociety/>
10. **Botanical Society of Otago.** Newsletter 68 2/13: 150th anniversary of Dunedin Botanic Garden – NZ's first one – exhibitions, talks, tours; asiatic (Japanese) knotweed; Wellington BotSoc trip to Arthur's Pass NPK; etc.
- BSO, Box 6214, North Dunedin 9059.
- 11a. **Canterbury Botanical Society Journal.** 43 2012: Arthur's Pass NPK; fire on Hinewai Reserve; *Pittosporum* on Banks Peninsula; Catlins; etc.
- 11b. **Canterbury Botanical Society Newsletter.** 4/13: NatureWatch web site; etc. 6/13: invasive plant ecology study; etc.
- CBS, Box 8212, Riccarton, CH 8440. [www.canterburybotanicalsociety.org.nz](http://www.canterburybotanicalsociety.org.nz).
12. **Manawatu Botanical Society.** 47 9/12: matagouri; biocontrol of weeds; etc.
- MBS, Ecology Group, INR, Massey University, Palmerston North.
13. **Nelson Botanical Society.** 6/13: Filmy ferns of the Nelson region – a key is available; etc.
- NBS. [cathy.jones@xtra.co.nz](mailto:cathy.jones@xtra.co.nz)
14. **NZ Botanical Society.** 111 3/13: *Aciphylla monroi*; regional botsocs' news; *Azolla rubra*; Chilean rice grass naturalised on Banks Peninsula; Charles Knight's letter on NZ & Australian lichens, 1880-1883; biographical sketch: Alexander McKay; etc. 112 6/13: *Eleocharis acuta*; regional botsocs' news; call for nominations for Allan Mere Award 2013; Charles Knight's letters re NZ & Australian lichens; recent discoveries & rediscoveries on Banks Peninsula, incl. *Pittosporum obcordatum*; biographical sketch – Millicent Amiel Baxter (1888-1984); etc.
- NZBS, c/- Canterbury Museum, Rolleston Ave, CH 8013. [www.nzbotanicalsociety.org.nz](http://www.nzbotanicalsociety.org.nz).
15. **Rotorua Botanical Society.** 59 12/12: annual report; Sir John Smith-Dodsworth 1935–2012; structure, composition & dynamics of pōhutukawa forest, Bay of Plenty; etc.
- RBS, c/- National Forestry Herbarium, Scion, Te Papa Tipu Innovation Park, PBag 3020, Rotorua 3046. [www.wildland.co.nz/botanical.htm](http://www.wildland.co.nz/botanical.htm).
16. **Otari-Wilton's Bush Trust News and Views.** 3/13: Garden of National Significance status reaffirmed; paterre garden completed; animal-plant interactions; work with *Brachyglottis kirkii*, *Streblus banksii* & *S. heterophyllus*; Treasure Trail opens; plants collected on Mt Robert, Nelson Lakes NPK; *Phyllocladus trichomanoides*; etc. 6/13: pest trapping results; Otari's ferns; fungal foray; *Tecomanthe speciosa*; etc.
- OWB Trust, 160 Wilton Rd, Wilton, WN 6012.
17. **Forest & Bird.** 348 5/13: 90<sup>th</sup> anniversary of F&B; roles of mangroves; support for DOC; marine reserves inadequate; RMAct under threat; fight for Denniston continues; garden bird survey form; powerful feature article: "It's about NZ"; sustaining native forest on a high country farm; Waitangi Tribunal's report on flora & fauna claim (WAI 262); Kaipūpū Point wildlife sanctuary, Picton; etc.
- F&B, Box 631, WN 614. [office@forestandbird.org.nz](mailto:office@forestandbird.org.nz) [www.forestandbird.org.nz](http://www.forestandbird.org.nz).
18. **Rahui.** Winter 13: Highbury native plant nursery; Karori 'Halo' project; Watts Peninsula; wetlands; urban trapping; annual report; etc.
- Wellington Branch, Forest & Bird, Box 4183, WN. [rahui@talkingbusiness.co.nz](mailto:rahui@talkingbusiness.co.nz)
19. **ECOLink.** 3-5/13: environmental protection being weakened by changes to Resource Management, Conservation and Reserves acts; Schedule 4 land on Coromandel Peninsula subject to exploration or prospecting licences; new marine reserves; etc.
- ECO, Box 11 057, WN. [eco@eco.org.nz](mailto:eco@eco.org.nz)
20. **Friends of the Wellington Botanic Garden.** 3/13: Management plans for Anderson Park, Bolton St Memorial Park, Otari-Wilton's Bush, Truby King Park & WN Botanic Garden to be combined into one document; etc.
- FoWBG, Box 28 065, Kelburn, WN 6150. [www.friendswbg.org.nz](http://www.friendswbg.org.nz).

21. **Paekawakawa Reserve.** Island Bay Natural Heritage Trust 1.4 ha-QEII National Trust Open Space Covenant, Island Bay. Leaflet.  
 • [paekawakawa@gmail.com](mailto:paekawakawa@gmail.com)
22. **Friends of Maara Roa.** Newsletter re protection & restoration of native bush in the valley of Cannons Creek, Porirua.  
 • <http://maararoa.org.nz>. Susan Wilson, Web master. [susan@kennis.co.nz](mailto:susan@kennis.co.nz)
23. **Gorge Gazette.** 4/13: planting; weed control; etc.  
 • [www.trelissickpark.org.nz](http://www.trelissickpark.org.nz)
24. **The kererū needs your help.** Brochure. Wellington City Council; WorldWide Fund for Nature WWF NZ.  
 • [www.kererudiscovery.org.nz](http://www.kererudiscovery.org.nz).
25. **Pipipi.** 37 3/13: drought, floods, quakes on Banks Peninsula; *Hieracium lepidulum* invades; *Hoheria populnea* hybridising with the local *H. angustifolia*; carbon sequestration measured in Hinewai's forests; *Plant Life on Banks Peninsula* by Hugh Wilson, to be published in Spring (see flier in this newsletter); Maurice White Native Forest Trust; etc.  
 • *Hinewai Reserve, RD3 Akaroa 7583.*
26. **Elsie Smith's Stewart Island orchids.** Water colours & drawings 1930-1960. Compiled by Ian St George, 2012. No.18 in NZ Orchid Group's *Historical Series*.
27. **Fauna Recovery NZ.** Information, sign up to newsletter, newsletter archives. See article in this newsletter.  
 • <http://faunarecovery.org.nz/about> or [barry.dent@faunarecovery.org.nz](mailto:barry.dent@faunarecovery.org.nz)
28. **Safety in the mountains.** 11th edition. Edited by Robin McNeill. DOC Visitor Centre, Manners St, WN.
29. **Wellington Glean Report.** Prepared weekly by Ruth Beran, this e-mail service lists science & knowledge events in Wellington, including BotSoc's field trips & evening meetings.  
 • [gleanmedia@gmail.com](mailto:gleanmedia@gmail.com)
30. **Norfolk Island's fascinating flora.** Peter Coyne. c. NZ\$30.60, incl. p&p, for BotSoc's. 192 pp, full colour, > 400 photos, early paintings, sketches. Order via web site:  
 • [www.petaurus.com](http://www.petaurus.com).
31. **Muelleria.** 30(1) 2012: *Thelymitra venosa* complex; *Lachnagrostis robusta*, *L. billardierei*, *L. punicea*, etc. 30(2) 2012: *Epacris impressa*, *Cyclosorus interruptus*, etc. 31 2013: *Thelymitra nuda* complex; *Pterostylis xerophila*, *P. lingua*, etc.  
 • *Royal Botanic Gardens Melbourne, Birdwood Ave, South Yarra, Victoria, Australia.* [www.rbg.vic.gov.au](http://www.rbg.vic.gov.au).
32. **Friends of Galapagos e-News.**  
 • [info@galapagos.org.nz](mailto:info@galapagos.org.nz) [www.galapagos.org.nz](http://www.galapagos.org.nz)

## SUBMISSIONS MADE

### Northland's Draft Conservation Management Strategy 2014–2024

Submissions closed in March on the draft conservation management strategies (CMS) for Northland, Auckland and Waikato. We submitted on the Northland's draft CMS to give us a better understanding of the "template" approach that DOC is using to produce this second generation of CMSs. We chose Northland because it has so many special plants and ecosystems. Many members will remember our trip to Northland to celebrate our 50<sup>th</sup> anniversary. More recently, Lisa Forester reminded us of the richness of Northland's flora when she spoke about its "Special Plants, Special Places" when delivering the AP Druce Memorial

Lecture in 2010.

Overall, we were impressed by the clarity of the draft CMS, and the quality of the supporting information in the appendices, particularly the lists of the Priority Ecosystem Management Sites and threatened and at-risk species. Nevertheless, we provided about 18 pages of suggestions for improvements. Weeds were our top topic, and we illustrated our comments with quotes and photos from members who have visited Northland recently.

The draft CMS also shed some light on how the conservancy intends to respond to the challenges of DOC's new business model, and its tight funding constraints. Northland's volunteers and businesses will face tough decisions when deciding how to divide their time between DOC's national priorities and the species and places that are important regionally or locally. The Auditor-General recently reported that "Staff and stakeholders questioned the viability of DOC's strategy to increasingly achieve biodiversity gains through community and commercial partnerships, especially in regions with lower socio-economic characteristics or smaller populations to draw from".<sup>1</sup>

The next three draft CMSs, (Southland, Canterbury and Otago) are expected in late June 2013. The date for the draft Wellington-Hawke's Bay CMS is yet to be confirmed.

### Proposed changes to Resource Management Act (RMA)

Government intends to introduce a Resource Management Reform Bill later this year as part of changing NZ's resource management and freshwater management systems. Government tested reaction to its proposals through two discussion documents released in March with tight deadlines for submissions. BotSoc responded to both documents. We found we could agree with some of the proposals, but others were a serious concern, as were some of the omissions. The following notes capture some of the contents of our submissions.

#### 1. Discussion document: Improving our resource management system (MfE March 2013)

We were pleased to find that Government was not proposing to change the purpose of the Act (the promotion of sustainable management).

We strongly opposed the proposed integration of sections 6 and 7, arguing that the environmental matters in section 6 must be given a higher priority than the economic/social matters in section 7.

We agreed that the lack of guidance from the Ministry for the Environment (MfE) is a problem. Our example there is still no National Policy Statement on Indigenous Biodiversity 22 years after the RMA was passed.

We asked Government to address the issue of responsibilities for providing effective advocacy for conservation values in resource management processes at local, regional and national levels. DOC has advocacy responsibilities, but has recently changed its focus and

<sup>1</sup> Office of the Auditor General December 2012: Department of Conservation: Prioritising and partnering to manage biodiversity. Paragraph 5.38, page 39

ways of working. We think this task is too important and too expensive to be left to community and voluntary organisations.

## 2. Discussion Document: Government's Freshwater Reform 2013 and Beyond

There is much to like in this set of proposals which reflects some of the recommendations from the Land and Water Forum. We focussed our attention on wetlands and were pleased to find that:

- wetlands will be identified in the Resource Management Reform Bill as one of the types of freshwater water bodies that will be included in the proposed National Objective Framework
- wetlands will be included in the first batch of regulations developed to implement the National Objective Framework
- guidance on wetlands will be delivered within three years.

It was disappointing, however, to find that Government had not responded to some of the suggestions in the NZ Conservation Authority's report, *Protecting NZ's Rivers* (November 2011). This report proposed identifying priorities for additional protection of rivers by compiling a national inventory of rivers and river reaches with outstanding characteristics, including biodiversity, landscape, cultural, recreational, amenity values.

*Bev Abbott*  
Submissions Coordinator

## SUBMISSIONS CALLED FOR

- 9 July. **Our Capital Spaces – draft open spaces & recreation framework for Wellington: 2013-23.** Wellington City Council.  
[www.wcc.govt.nz](http://www.wcc.govt.nz) Hard copies from 499 4444, City Service Centre & libraries.

### DOC Wellington Visitor Centre

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

Conservation House,  
18–32 Manners St

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

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

Tel: 04 384 7770 Fax: 04 384 7773

E-mail: [wellingtonvc@doc.govt.nz](mailto:wellingtonvc@doc.govt.nz)

Web: [www.doc.govt.nz](http://www.doc.govt.nz)

New Zealand Government

Department of  
Conservation  
*Te Papa Atawhai*

## 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.

## Edward (Ted) Willis Williams (1921–2013)

With sadness we report Ted's death on 4 June. Ted, and Nancy, who died a year ago, were active BotSoc members for decades. They were married for 69 years. We send our condolences to Julia and the family. A full obituary will appear in the next newsletter.

## Tom Moss Student Award in Bryology — Applications sought

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

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

The 2013 Award will be made at the John Child Bryophyte Workshop to be held in November at Ohakune. Contributions that would qualify for the Award include:

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

Only one application per student will be accepted (i.e. either a presentation or a publication). The paper can be published, or accepted for publication, or a significant unpublished report. This should be published or written in the twelve months immediately prior to the Workshop and submitted for judging by 25 October 2013 (see below). It is not necessary to attend the workshop where a paper is submitted for consideration.

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

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

Publications for consideration should be submitted with a covering letter by 25 October 2013 to: Tom Moss Student Award, Wellington Botanical Society, PO Box 10 412, Wellington 6143.

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

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

### Letters to the editor

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

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

Thank you

*The committee*

## 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 alpiners, 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.

*Rodney Lewington  
4 Highbury Crescent  
Highbury, Wellington 6012  
Tel: 64 (0) 4 970 3142; Mob: 64 021 122 0040  
rodnejl@clear.net.nz*

## Donation to Forest and Bird's Denniston campaign

Kevin Hackwell, Advocacy Manager, Royal Forest and Bird Protection Society, gave a stirring talk to the Society last September about the ecological and landscape values of the Denniston Plateau. The photos and video clips of the BioBlitz that Forest and Bird organised to collect more information about the indigenous biodiversity on the plateau brought back many memories of our own field trips to the area.

The Society has donated \$150 to support Forest and Bird in its legal battle to prevent Bathurst Resources Ltd from developing an open cast coal mine on the plateau. The Society rarely makes donations, and sees this as a one-off in a special set of circumstances. The progress made by Bathurst towards obtaining all the necessary approvals has highlighted the vulnerability of general stewardship land, which is the lowest legal status of protection for land managed by the Department of Conservation. It also highlights the importance of collecting more detailed information about the biodiversity of other stewardship areas.

The Society received a limited edition Craig Potton print as an appreciation of its donation.

*Bev Abbott*

## Audrey Eagle honoured

We congratulate Audrey, for many years a member of BotSoc, who has been conferred with an honorary doctor of science degree by the University of Otago. Audrey is a Dunedin-based botanical artist and passionate conservationist.

Born in Timaru, Audrey (87) began painting NZ native plants in 1952, and about 50 years later, achieved her goal of illustrating every native tree and shrub in the land.

Eagle's *Complete Trees and Shrubs of New Zealand*, a two-volume book compiling the fruits of her life's work, was published by Te Papa Press in 2007, and contained 806 painstakingly hand-painted plates.

The book earned her the 2007 Montana Medal for Non-Fiction and the Booksellers Choice award. She has many other honours, including being appointed a Companion of the NZ Order of Merit in 2001 for services to botanical art.

Otago University vice-chancellor Prof Harlene Hayne praised Mrs Eagle's "enormous contributions to botany and conservation" and said it was fitting that the only university in NZ to retain a stand-alone botany department was honouring her in this way.

Source: John Gibb, Otago Daily Times, 4 May 2013

*Richard Herbert, President*

## Percy Scenic Reserve news

Summer left its mark on the reserve, causing problems for about forty days in the reserve and the glasshouse collections. The temperature inside the glasshouses was nearly 40° some days, so we were chasing a hose for much of February! Luckily we had partial immunity from the watering ban, considering the conservation status of our plants, so we started the sprinklers early each morning. Two genera were quite badly hit by the heat, namely *Wahlenbergia* and *Scleranthus*, and the *Myosotis* species were a close third much of the time.

With the arrival of Autumn, we are still experiencing warmer-than-usual temperatures in the glasshouses, while the rain keeps the weeds growing outside! In the main reserve, the gardens are being prepared (pruned, mulched and mapped) in readiness for planting. This year, to lift the profile of the reserve, we have a large number of plants to plant, to update the gardens, bulk up bare areas and formalise the edges of established gardens. Propagation is seriously beefed up this year too, in Downer's contract with Hutt City Council (HCC). We are endeavouring to duplicate the Percy collections for insurance purposes, through vegetative means where possible, which will certainly be a challenge for some species! Otherwise the propagation is being done through cuttings and seed for most of our own gardens, and for HCC's street gardens. So it is a busy time in the glasshouses!

The glasshouses have recently been spruced up inside, to update and make them more presentable for potential open days. The collections have been moved within the houses to accommodate plants by species, to facilitate workability and recording, especially now that duplication is well underway. Plants are grouped by species in appropriate houses (based on needs and requirements), which simplifies navigation and selection, and also makes pest and disease control a lot easier. The amount of chemicals used to control problems has reduced dramatically, which is positive, given the amount of handling the plants receive. A representative of each species is in the Alpine House for direct display, and another at the Summit Road depot for off-site insurance.

As some of you may be aware, staffing at Percy Reserve has reduced over recent months. Currently I am holding the fort, with the help of a crew member part-time, while Downer develops a staffing scheme to fit what the reserve and collections need, in conjunction with HCC's requirements. There have been several changes with restructuring at

management level in Downer's horticulture team over recent months, and with the contract soon coming up for renewal. it will be interesting to see what happens next!

To contact us, our e-mail address is: [Percy.Reserve@downer.co.nz](mailto:Percy.Reserve@downer.co.nz). We check it semi-regularly! If you require our attention urgently, please call me on 021 541 879.

Until next time, happy gardening!

*Eliza (Liza) Whalley (B.App.Sci Horticulture)  
Percy Scenic Reserve, Lower Hutt  
Ph: (027) 236 1787*

## Botanical Society photo competition

First I would like to thank everyone who entered the competition. There was a good and interesting selection of photos, to a high standard. The competition was judged by a panel of three: Eleanor Burton, Jane Humble and Jeremy Rolfe. The winners, announced at the Members' Evening, were:

- Best Close-up: *Matai Tree Trunk*. Chris Moore
- Best Botanical Portrait: *Northern Rātā*. Chris Moore
- Best Botanist-in-Action Photo: *It's There Somewhere*. Richard Herbert
- Best overall: *Northern Rātā*. Chris Moore.

differently, and we had to re-categorise some photos before judging. It was also suggested that the limit on the number of entries per person was a bit restrictive; this could be looked at as the purpose is to prevent numerous entries, but we still want a good number in the competition.

*Eleanor Burton*

## Craig Potton print for sale

The photographic print is c. 40 cm × 32 cm, on Kodak Professional Endura paper. It is print no. 35 of 100 produced. We wish to sell this fine print by tender, with bids over \$50 considered. The funds will go to the Jubilee Award Fund.

*Rodney Lewington, Treasurer*

## BotSoc book auction

The books that Dr Wendy Nelson donated from Nancy Adams' estate raised \$589.50 for the Jubilee Fund Award at the Members' Evening on 20 May. We thank Wendy for her generous donation.

*Carol West*



The overall winner, *Northern Rātā* by Chris Moore.

The committee will decide what to do with the photos, meanwhile they will be mounted on the display board. The photo competition has been a learning curve for all involved; there are certainly things we could do better next time. Some photos were mislaid in transit so did not get judged; this was very unfortunate as they were excellent photos and would have been contenders. They have since been found. Other problems included the categories not being clearly defined, so people understood them

## World wild web

Use the internet to find the wilder corners of the Wellington region. The Wellington Regional Strategy web site lists 50 easy-to-reach places with a diverse range of plants and animals. Each entry has a distinctive ecosystem, whether forests, mountains, wetlands, lakes, rivers, or coastal and marine life.

[wrs.govt.nz/where-the-wild-things-are](http://wrs.govt.nz/where-the-wild-things-are)

## Enhancing the Halo

The Morgan Foundation are recruiting households to help with 'Enhancing the Halo,' with the aim of making Wellington 'The Natural Capital.' We already have several wildlife hotspots, e.g. Zealandia, Otari-Wilton's Bush and Oruaiti Reserve. Now it is time for us to restore the full dawn chorus, which most New Zealanders have never heard, and see wings over all of Wellington.

We are building a [web site](#) designed to:

- inspire Wellingtonians to support this vision, and become 'Halo households'
- show them what they can do in their backyard, and record what they pledge to do
- encourage them to link up with projects in their neighbourhood.

We will promote this through social media, school visits, and competitions. Victoria University (VUW) staff will make sure everything is evidence-based.

There are several ways you and your organisation can get involved:

- Help us inform the public. We want the web site to inform Wellington schools and households about what they can do to enhance the halo. Part of this will be giving them simple tips and things that they can do in their own backyard. If you know of someone with expertise in this area—practical or research-based—who would share their ideas, through blog or video, then please tell us. We want a range of people so that we can communicate to all ages! Again we will be working with VUW to ensure that technical information in the blogs is correct.
- Help us inspire the public. We want to publicise the good work going on in the Capital. Do you know anyone who is doing practical work in their community, and is happy to share their story? If so, let us know, because we want to make them a 'Halo hero'! Large organisations may find it easier to pass this e-mail on to any affiliates, or people working at a grass-roots level.
- Pass it on—if your organisation has newsletters, or contact details for people interested in this work, please share the web site and help us recruit 'Halo households'. We are happy to write copy for a newsletter or e-mail. We are building a network that can be used by all partners for a common goal!

Naturally we hope people will be inspired to act in their local community, and the web site will help them do that. We aim to work with Conservation Volunteers, Naturespace, Naturewatch and others, to avoid duplication.

Several people are interested in the monitoring and science aspects of this work, including VUW. Our aim is to engage and inspire the public, but if anyone wants to get involved and use our web site to gather data, we are keen to help.

The plan is to launch the web site on 14 June, with competitions to raise publicity running through until Spring—a great time to plant the garden full of bird-friendly plants.

Reference: Nick Tansley, Morgan Foundation, Pest Free NZ

## *Tecomanthe speciosa*

You may already have noticed that our extraordinarily warm, extended Autumn weather has encouraged profuse flowering of our rarest indigenous twining liane, *Tecomanthe speciosa*. Cascading over the hand-rail at the Otari Visitor Centre, climbing the Tree House lift tower in the Botanic Garden, clambering up the NZ School of Music at Victoria University, adorning the entrance at Kelburn Medical Centre, and thriving on the roof of DOC's Conservation House, Manners St, this robust, Three Kings endemic liane has no Māori or generally accepted common name, usually being known simply as tecomanthe.

In 1945 a party of botanists discovered a sole, in fact *the* sole plant of it in the world, on Manawa Tawhi, the largest of the Three Kings Islands, c.50 km off the north coast of Northland. Then completely unknown to science, it was being browsed to near death by goats. Fortunately, six cuttings were taken and successfully propagated by horticulturists on the mainland, producing viable plants, from which all subsequent tecomanthe plants—yes, yours too—are derived. Goat eradication on the island in 1946 rescued the original plant from certain extinction, but it produced no flowers from 1946 to the 1990s, and although it has flowered profusely since then, it has never produced seed. On page 235 of *Threatened Plants of New Zealand*, Canterbury University Press, 2010, Andrew Townsend wonders whether this is because, these days, the flowers are mostly destroyed at the bud stage by another NZ endemic species, red-crowned parakeets, *Cyanoramphus novaeseelandiae novaeseelandiae*!



The flowers of *Tecomanthe speciosa*. Photo: Ewen Cameron.

A member of the largely tropical Bignoniaceae family, *Tecomanthe speciosa* has the NZ Conservation Status of Nationally Critical. Its large, broadly-ovate, glossy, dark green leaves are pinnately compound, with one or two pairs of opposite leaflets, and a single terminal leaflet. The plump green flower buds start off looking like shiny little cucumbers, in clusters of up to 50, growing straight out of the sturdy trunks. Then they turn a brilliant white, resembling crowded bunches of small, fat, white bananas. The elegant, pendulous, flowers, greenish-white to creamy-yellow, emerge from shiny green calyces, the tips of their petals flaring trumpet-like, from the corolla tube. One observer has aptly described the open flowers as being shaped like a saxophone! After fertilisation, the c.200 seeds develop inside woody pods which can reach 150 mm long

× c. 40 mm wide, surely the largest in our indigenous flora.

Like all small populations of plants and animals which are, by that circumstance, in a genetic “bottle-neck”, (for instance, the Chatham Island black robin), *Tecomanthe speciosa* is a clone, lacking the genetic variation which would otherwise provide it with the resilience to deal effectively with environmental change. This means that the whole species is susceptible to being wiped out by e.g. a single pathogen, or a climate change that does not suit its requirements. So should we all encourage lots of plantings of tecomanthe, in order to increase its chances of survival? If we do so, mightn't it displace existing Wellington-appropriate liane species such as *Passiflora tetrandra*? If you are seriously considering planting it, make sure you first provide a very strong, permanent, purpose-built climbing frame, because tecomanthe's muscular, twining stems have been known to surreptitiously wrench apart timber fences, all the while presenting a picture of decorous, indigenous innocence.

Barbara Mitcalfe

## Otari-Wilton's Bush report

Kia ora koutou.

The planting season is approaching, so you will soon notice some new plants appearing in the gardens. Our plant collecting has paid off with many new species entering the gardens this year. In April, Finn Michalak, one of our collection curators, visited Southland and Stewart Island to collect plants, and talk to Southlanders about how we might help each other in plant conservation. With a grant from the Otari Trust, Finn had a very successful trip, bringing back over 100 species, many of which are new accessions to Otari.

I have just returned from the NZ Plant Conservation Network conference – an excellent conference. The field trip around Auckland's urban forest was certainly an experience; looking at pōhutukawa, karo and karaka in their natural habitat and not as weeds on the Wellington coastline. Videos of the conference talks can be seen at [www.allaboutauckland.com](http://www.allaboutauckland.com), then by searching NZPCN.

Several BotSoc members have been plugging away at an Otari tour on plant evolution for the Year 13 pupils from Hutt Valley High School. This will be an extremely valuable resource for secondary schools. What better place to foster budding plants people than Otari – and what better people to help us do it!

Shortly I will be travelling to Kew Gardens in London for eight weeks. I have been accepted to study at Kew for a Diploma in Botanic Garden Management. This is a fantastic opportunity to learn at one of the world's top botanic gardens, and make contact with other professionals in the field. No doubt it will be a very busy few weeks.

Look out for the new *Treasure Trail* when you next visit Otari. Complementing the *Nature Trail*, the new trail leads you through the gardens to look at some of Dr John Dawson's favourite plant 'treasures'.

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

## Our Capital Spaces

Wellington City Council is calling for submissions on its draft framework for making decisions about the management of the city's open spaces. The consultation document is *Our Capital Spaces*. The final version will influence Council's investment decisions during annual and long-term planning processes over the next 10 years. *Our Capital Spaces* replaces: *Capital Spaces* (1998), and the *Recreation Strategy* (2003).

The main goal is to get more people active and enjoying the outdoors. Council intends to reorganise Wellington's tracks, parks and playgrounds, so that they appeal to a wider range of people.

The protection of birds, nature, streams and landscapes are combined into one section. The plan proposes restoring more ecological areas throughout the city, and encouraging native birds and other important species into every community. Council proposes to “grow the Council's pest management and native planting programme”. Partnerships with communities will be encouraged - the draft proposes “establishing community gardens and restoration projects in every community that wants one”.

Some of the places identified for specific developments include Watts Peninsula, Belmont Gully, the Outer Green Belt between Johnsonville and Tawa, and Spicer Forest Recreation Park (a joint initiative with Porirua City Council).

Submissions close on **9 July 2013**.

Bev Abbott

## NZ Journal of Botany award

To mark its 50th birthday in 2013, the *NZJB* has initiated an annual prize for outstanding contributions to the flora of the Southern Hemisphere. The award will alternate between researchers who have a sustained record for excellence, and those early-career researchers who have published a significant paper in recent issues of the journal.

Source: *Trilepidea* 110 1/13.

## Kohekohe on Mt Victoria

For the first time in at least 150 years, a kohekohe, planted 25 years ago, is starting to flower in the Town Belt on Mt Victoria. This is a fine example of the beneficial effects Greater Wellington Regional Council's possum control is having on the local ecosystem. A possum bait station is in the gully where the kohekohe is growing.

David Lee, Co-ordinator, Mt Vic Revegers

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

## Naturewatch

NatureWatch (<http://naturewatch.org.nz/>) is a web site where everyone can record and share their observations. The following link takes you to all recent plant observations: [http://naturewatch.org.nz/observations?taxon\\_id=48337](http://naturewatch.org.nz/observations?taxon_id=48337)

NatureWatch may be of interest to BotSoc; for instance, to record the species we list and photograph during our field trips. Here's a record I made from the Easter trip: <http://naturewatch.org.nz/observations/356173> It will be a great way for aggregating our pictures so that we can learn from one another.

Leon Perrie

## Environment hotline – 0800 496 734

Ring the above number to report an environmental incident involving the contamination of land, water, air and the coastal marine area. This is a 24-hour service.

## Asiatic (Japanese) knotweed *Fallopia japonica*, formerly *Reynoutria japonica*

GW staff recently took two PhD students and a professor from Leicester University, England, to several of the region's asiatic knotweed sites. They visited NZ to sample sites to trace the genetic source to assist biocontrol-specific research. During the visit, seedlings were found for the first time at an Akatarawa site. These may be a hybrid between asiatic knotweed and our native *Muehlenbeckia* species. The Leicester team will clarify this as part of their genetic work back in England.

Asiatic knotweed is a thicket-forming, woody, many-stemmed, rhizomatous herb that grows to 2-3 m. It creates monocultures that restrict the growth of indigenous species. It is classified as a Regional Surveillance Pest Plant under GW's Regional Pest Management Strategy. The five-yearly review of the strategy is scheduled for 2013/14.

Bev Abbott

## *Dactylanthus taylorii*

Has any reader seen *Dactylanthus* "wood rose" in the greater Wellington region? This Nationally Vulnerable, endemic root-parasite species, has been recorded here in the past.

In recent years, Sunita Singh has found two wood-roses in driftwood on Ocean Bay beach. The last sighting that Owen Spearpoint, Greater Wellington Regional Council, knows of in the Wellington area was of a plant in the West Akatarawa valley, near the Karapoti entrance, in the 1940s. *Dactylanthus* has a seed viability of about 50 years, so it is possible that it still exists. Intensive control of possums, which eat the flowers, may result in the reappearance of this root parasite.

In <http://blog.tepapa.govt.nz/tag/dactylanthus/> Leon Perrie reported a sighting from the Manawatu in March 2011.

Eleanor Burton  
Vice-president

## Botanical blogs

You may be interested in Phil Garnock-Jones's blog on various things botanical: <http://theobrominated.blogspot.co.nz/>

In addition, there are botanical posts in Te Papa's blog: <http://blog.tepapa.govt.nz/category/plants/>

You can sign-up for e-mail-alerts to new blog posts from Te Papa, on all topics, by entering your e-mail address in the box at the top-right of the page, then selecting the 'Follow' button. It is not yet possible to follow just the botanical posts.

Leon Perrie  
Curator of Botany  
[leonp@tepapa.govt.nz](mailto:leonp@tepapa.govt.nz) or 381 7261.

## Restoration Day 2013

Some of the material presented at workshops, and some of the photos taken on the day, are on the Nature Space web site. See: <http://www.naturespace.org.nz/community-notice/wellington-restoration-day-2013-resources-and-photo-gallery>

Tim Bailey  
Community Relations - Nature Space Coordinator  
Department of Conservation- Te Papa Atawhai  
Kapiti Wellington Area office

## Stamps featuring ferns

Five of NZ's 192 species of ferns feature on NZ Post stamps issued on 7 February. The five, all endemic, are:

- 70c: *Asplenium bulbiferum*, hen and chickens fern, manamana
- \$1.40: *Cardiomanes reniforme*, kidney fern, raurenga
- \$1.90: *Blechnum colensoi*, Colenso's hard fern, peretao
- \$2.40: *Sticherus cunninghamii*, umbrella fern, tapuae kōtuku
- \$2.90: *Cyathea dealbata*, silver fern, ponga.



Source: NZ Native Ferns. Brochure. February 2013. NZ Post.

## Arthur's Pass Wildlife Trust

The trust does research on great spotted kiwi (roroa) in the mountainous Bealey Valley near Arthur's Pass village. The birds have been fitted with transmitters so that their movements can be monitored, and infra-red cameras are mounted near some of the birds' burrows. The work also involves intensive pest control. The trust welcomes donations towards the costs of their work to protect this critically endangered bird. The trust has Charity No. 46685, so donations over \$5 are tax deductible. The trust can be contacted at

Arthur's Pass Wildlife Trust, PO Box 51010, Arthur's Pass 7654.  
[www.apwt.org.nz](http://www.apwt.org.nz)

## New genus for our Grammitid ferns

Leon Perrie and Barbara Parris have erected a new genus for the NZ grammitid ferns. Based on molecular data, the eleven species (1 *Ctenopteris*, 10 *Grammitis*), and a single Tasmanian species (*Grammitis*), belong to a single group (clade), and are now placed in a new genus of twelve species: *Notogrammitis*, which is closely related to *Grammitis* sensu strictu. The species endings remain unchanged, except *Grammitis magellanica* becomes *Notogrammitis angustifolia*, and *G. poeppigiana* becomes *N. crassior*.

### Reference

Perrie, LR, Parris BS 2012: Chloroplast DNA sequences indicate the grammitid ferns (Polypodiaceae) in NZ belong to a single clade, *Notogrammitis* gen. nov. NZ Journal of Botany 50: 457-472.

Source: Ewen Cameron, in *Auckland Botanical Society News-Sheet*. 2-3/13, 4/13.

## Fauna Recovery NZ

This organisation is the conservation arm of The Sue Freitag and Barry Dent Charitable Trust. NZ Registered Charity No. CC 46 108. Barry Dent, FRNZ, PO Box 38 627, Wellington Mail Centre 5045. For more information, please refer to the publications section above.

## QEII Open Space covenants

The following covenants have been registered recently in the Wairarapa:

- 1.5754 ha – lowland primary wetland & sedgeland; modified secondary shrubland
- 0.8134 ha - lowland, modified, primary forest
- 1.0204 ha - lowland, modified, primary forest.
- Anne McLean, Communications Advisor, Queen Elizabeth II National Trust

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

### Newsletter by e-mail?

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

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

## New Chatham Island *Uncinia*

Peter de Lange and Peter Heenan have described a new species of hook sedge from the Chatham Islands. *Uncinia auceps*, the bird-catching *Uncinia*, is distinguished from *U. uncinata* by, among other things, having long-trailing culms that are reminiscent of *Carex flagellifera*.

*Uncinia auceps* is common in forested areas on Chatham Island and Pitt Island.



### Reference

de Lange, PJ; Heenan, PB; Rolfe, JR. 2013: *Uncinia auceps* (Cyperaceae): a new endemic hooked sedge for the Chatham Islands. *Phytotaxa* 104 (1): 12–20.

## 20 May: Members' Evening

The auction of books, sixty-five donated by Wendy Nelson, from the estate of Nancy Adams, plus two donated by Barbara Clark and one by Wren Green, to raise money for the Jubilee Award Fund, was the highlight of the evening. We thank Carol West, who set the reserve prices on each publication, and recorded each sale, Richard Herbert, who exhibited each item, and Chris Horne, who was auctioneer.

We thank the following for their presentations:

- Barbara Mitcalfe – *Tecomathe speciosa* flowers, and reports of local occurrences.
- Roy Slack – chess board with the squares made with insets of native timbers.
- Chris Horne – a reading from *Plants of NZ* by Laing and Blackwell, "The natural permanence of the bush".

# TRIP REPORTS

## 30.12.2012 – 6.1.13: Arthur's Pass National Park

We thank Chris Moore, trip leader, Sheelagh Leary creator of the splendid menu, and Rodney Lewington for managing the accounts. We are most grateful to DOC staff and Arthur's Pass Wildlife Trust for their memorable programme of evening talks, and to the Fire Service volunteers who pumped scores of cubic metres of storm-water from around our Outdoor Recreation Centre, during a torrential downpour. In addition, we thank Chris Stewart (DOC), Michael McSweeney, Ray and Maree Goldring, and Danny Kember (DOC), for their help with making this trip a success.

### Day 1—30.12.12: Arthur's Pass Walking Track

Chris Stewart (DOC), aided by Hamish and his children, led us up the track, from the village, to beautifully restored Jack's Hut. This outing was part of DOC's summer programme. The upgraded track is a good example of the efforts that DOC makes to encourage people to study and enjoy indigenous ecosystems, such as this high-altitude forest. We saw *Pseudopanax linearis*, *P. colensoi* var. *ternatus*, and numerous other species not found in the North Island.

Later that day, some of us botanised along O'Malley's Track, on the true right side of the Waimakariri River. We saw *Peraxilla tetrapetala*, in flower, *Hoheria glabrata*, *Lagenifera pumila* and *Rubus schmidelioides*, under mountain beech and mānuka.

Chris Horne

### Day 2—31.12.12: Arthur's Pass Wilderness Lodge and Broad Stream

The lodge and farm are 16km east of Arthur's Pass township. Michael McSweeney, a trained ecologist, talked to us about the property, then guided us across Broad Stream river flats and the terraces beyond.

The lodge was established in 1996 by Michael's parents, Gerry McSweeney and Anne Saunders, in partnership with the extended McSweeney family, to share a very special part of the South Island with visitors, and show how careful eco-

tourism can help to protect nature and provide rural communities with alternatives to destructive industries such as native forest logging. Gerry has also been greatly involved with Forest and Bird, and the Nature Heritage Fund, and at the 2010 NZ Plant Conservation Network conference, presented a paper about the indigenous vegetation on the property.



A view looking east across the Broad Stream valley to the Moa Forest. Photo: Richard Herbert.

Set on a 6000-acre merino sheep station, which includes the Cora Lynn Pastoral Lease block, Wilderness Lodge Arthur's Pass demonstrates that conservation, well-managed farming, and tourism can be a winning combination. Half of the farm has been reserved, fenced and retired from grazing, after being in pasture for 150 years. Introduced pests and weeds have been controlled, and rare plants established. 1000 acres have been under possum and rat control with brodifacoum for the past 16 years, leading to a rapidly regenerating mānuka and beech forest, locally called "Moa Forest".

A major battle exists with the spread of wilding pines, mostly Douglas fir, from the neighbouring Craigieburn Conservation Park. Helped by conservation volunteers, they remove 3000 wilding pines every six months from the property.

On the other half of the property, a flock of super-fine merino sheep are run to supply wool for the fashion industry.

Finds during our excursion on the braided bed of Broad Stream included: *Epilobium melanocaulon*, *Helichrysum depressum*, *Elymus solandri* / blue wheat grass, *Geranium sessiliflorum*, the thorny *Discaria toumatou* / matagouri (wild

irishman), *Coriaria sarmentosa*, *C. plumosa* / mountain tutu, *Vittadinia australis* in flower, and *Wahlenbergia* / harebell. Mistletoes seen included *Peraxilla tetrapetala* / red mistletoe, and *Alepis flavida* / yellow mistletoe, both in flower.

We searched the gravels for a grasshopper species, which Michael thinks may be endemic to this valley—it is rather similar to the robust grasshopper.



*Epilobium melanocaulon* on Broad Stream river flats. Photo: Richard Herbert.



*Geranium sessiliflorum* on Broad Stream river flats. Photo: Richard Herbert.

We followed a short section of the McKay Moa Forest Walk on the true right of the valley of Broad Stream, a true right tributary of the Waimakariri River. Among the plants we saw were *Aristotelia fruticosa* / mountain wineberry, *Pittosporum divaricatum*, *Polystichum vestitum* / prickly shield fern, *Coprosma spathulata*, *Clematis forsteri*, *Helichrysum dimorphum* / a climbing daisy, *Muehlenbeckia axillaris*, *Helichrysum intermedium*, in flower, perched on a ledge, masses of white mānuka flowers and the invasive *Dryopteris filix-mas* / male fern.

#### Reference

Cora Lynn Station Crown Pastoral Land Tenure Review – Conservation Resources Report - <http://www.linz.govt.nz/crown-property/pastoral-land-tenure-review/status-of-pastoral-land/cora-lynn>

Richard and Margaret Herbert

### Day 2, 31.12.12. McCaskill Scenic Reserve, Castle Hill

Named after Lance McCaskill, this was the first reserve in Aotearoa/NZ created to protect a single species, *Ranunculus paucifolius*, commonly

known as the Castle Hill buttercup. In 1948, this 6.2-ha area amongst the limestone outcrops was declared a reserve. It was found here by John Enys, the then run-holder, a keen naturalist.

The ranunculus grew among the outcrops, in a hollow of limestone sand and debris, originally scattered amongst hard tussock, *Festuca novae-zelandiae*, which is now being replanted.

Lance McCaskill describes this plant: “Plant has marked xerophytic characters. Grows in limestone debris. Has deciduous leaves, radical, on stiff petioles, 3-7 cm and up to 6 cm in diameter. Three lobes with lobes overlapping and the margins are finely toothed or crenulate. They are greyish-green to ashen-purple in colour, somewhat fleshy and with some brown epidermal pits”.

The ranunculus and other species there, e.g. *Lepidium solandri*, have strongly purple foliage due to anthocyanins which is a response to high UV levels on the open limestone debris.

And he says:

“In 1948 the Lands and Survey Department fortunately decided

to learn about this delightful plant, to work for the deferment of its euthanasia and to use it to assist the public, particularly young people, in finding out what conservation really means.”

The prime mover towards the preservation of the buttercup was Walter Boa Brockie (1897-1972). While working at Christchurch Botanical Gardens he developed an interest in native plants and made a special study of *Ranunculus paucifolius*. He confirmed that excluding stock made the plants much larger. He was awarded the Loder Cup in 1945.

When he moved to Otari Native Botanic Garden, he asked Lance McCaskill to take over, and despite the war, McCaskill obtained the unobtainable, fencing wire and silver pine posts. With the help of student labour he erected a fence in 1948. At the time only 32 plants were found.

The reserve was gazetted in 1954. Access by the public was only with written permission of the Commissioner of Crown Lands. By 1958 145 plants existed. In 1961 each plant was surrounded by pieces of limestone rock to mark its position, and prevent damage by tramping. Some circles were still extant in 2012.

In 1977, to reduce the desire of the public to enter the unsupervised reserve, a small area adjoining the fence was planted with *Ranunculus paucifolius* and other special plants of the area. Since the public found out about the rarity of these special plants, they have all been looted from the enclosure, despite the fact that the ranunculus is a Nationally Critical endemic, difficult to cultivate and should not be removed from the wild.

The more we looked, the more we found in this bare hollow. There were many low-growing plants, about 20 cm across and now setting seed, of Castle Hill forget-me-not, *Myosotis colensoi*. In the slight shade provided by the huge boulders grew *Clematis forsteri* var *australis*, *Carmichaelia australis*, *Coprosma petrei*, *Aristotelia fruticosa* and some ferns, e.g. *Anogramma leptophylla*, *Asplenium lyallii* and *Cheilanthes sieberi*. In the open we saw *Pimelea prostrata*, duly lying prostrate, some with trunks 15 mm in diameter, and *Senecio lautus* var. *lautus* (S. “Titahi Bay”) flowering

with heads just above ground level up to 60 mm high.

We saw a Southern Alps gecko (*Woodworthia* sp.), found on the east side of the Alps,, and the bush giant dragonfly – kapokapowai - *Uropetala egrovia*.

The most widespread introduced plants we saw were three species of hawkweed, *Hieracium* spp., and oxeye daisy *Leucanthemum vulgare*.

Danny Kember, DOC Rangiora, has been managing this reserve for only three months. He intends to remove the weeds, especially *Agrostis capillaris* browntop, whose roots compete with the rare plants. The original cover of stunted tōtara has long gone. Attempts to replant it have failed in the extreme conditions this area experiences.

It was salutary to note that because volunteers are used to weed around the *Ranunculus paucifolius*, and can only identify their target plant, many of the other rare native treasures are pulled out in ignorance. With DOC planning to do much more of its work using volunteers, the situation will only be repeated nationwide.

#### Reference

The Castle Hill Buttercup (*Ranunculus paucifolius*). A Story of Preservation. L W McCaskill. Tussock Grasslands and Mountain Lands Institute, Lincoln College, Canterbury, NZ. Special Publication no. 25.

Julia Stace

### Day 3—1.1.13: Bealey Spur track

It was suggested that we should not say too much about the weather in trip reports, but how could you not, when the weather, together with the good humour of our group, were the main constants so far, five days into our ten-day camp.

Travelling east we had found better weather, so it was an easy decision to again go east this day to walk the Bealey Spur track. We climbed past holiday cottages, then entered patches of mountain beech and second-growth forest with wonderful clumps of scarlet mistletoe (*Peraxilla tetrapetala*), often at eye level. A blood-red carpet had formed under one much photographed plant. Orchids were prominent, including *Gastrodia cunninghamii*, *Pterostylis* sp., *Thelymitra* sp., *Prasopphyllum*

*colensoi*, *Nematoceras trilobum*, *Stegostyla lyallii* and *Aprostylis bifolia*. The track climbed steadily with a precipitous gorge on one side, before the ridge broadened with patches of beech forest and open red tussock clearings alternating. Skiffs of rain, with patches of sunlight, made for pleasant walking conditions. We had good views into the Waimakariri valley below, and saw persistent rain filling the heads of all valleys to the west.

The beech patches continued on and on and on, but most of the 25 who braved the weather reached the small, six-bunk hut on the edge of another beech patch. Here four young people in residence had a fire going and a welcome brew was possible. A strong wind made the return trip across the open tussock and wetland areas uncomfortable until we reached the forest lower down. Highlights of this trip were the views, the orchids and mistletoes, and the interesting plants in the wetlands that included patches of bladderwort (*Utricularia dichtoma*), the comb sedges (*Oreobolus pectinatus* and *O. strictus*), *Gleichenia dicarpa*, *Empodisma minus*, *Drosera arcturi*, *Lepidothamnus laxifolius*, *Mazus radicans*, *Gonocarpus micranthus*, *Microseris scapigera*, and *Celmisia alpina* agg. Out in the tussockland we found *Hebe canterburiensis*, *H. odora*, *H. subaplina*, *H. pauciramosa*, *Dracophyllum kirkii*, *D. rosmarinifolium*, *Coprosma cheesemani*, *Pimelea oreophylla* var. *oreophylla*, and a hybrid daisy *Celmisia discolor* x *C. duretzii*.

Back in the forest we heard parakeets, a distant kea, riroriro, brown creeper and chaffinch. We looked at the several forms of *Raukaua simplex*. We puzzled over the various coprosmas before deciding that *Coprosma propinqua*, *C. dumosa*, *C. microcarpa*, *C. linariifolia* and *C. pseudocuneata* were all present. Altogether a successful day.

Neill Simpson

### Day 4—2.1.13 Devil's Punchbowl Falls

The day was a pluvial paradise, with over 400 mm of rain turning the Bealey River into a boulder-rolling, angry torrent. The foot-bridge over the river juddered as five bold souls,

hermetically sealed in winter woollies and wet-weather gear, crossed it en route to an unforgettable spectacle—the falls rendered almost invisible by the gale of spray forced forth from the foot of the falls by the massive volume of water roaring out of the steep catchment.

This was the day that the Fire Brigade volunteers came with three high-capacity pumps to stem the flow of flood water rising steadily to surround our base.

### Day 5—3.1.13 Craigieburn Forest Park – weed clearance

A kererū appeared on the veranda of the Outdoor Centre holding a miro twig in its beak - it had stopped raining. We headed east to Craigieburn Forest Park and spent the morning pulling out wildling Douglas fir growing along the side of the road. It is doubtful that we made much of an impact over the morning. As is the case in other parts of the country, wildling conifers have become a major problem. Douglas fir planted on the Craigieburn Range is spreading out over Castle Hill Basin. The seedlings of this species germinate anywhere; in bogs, in shade under beech, and in the tussock grassland. Douglas fir grows rapidly and overtops the native vegetation replacing it entirely.

David Lyttle

We received this letter from Ray and Maree Goldring: Thanks for the work you did for Waimakariri Ecological and Landscape Restoration Alliance, WELRA. It was a great effort and well appreciated. We have commenced the spraying now - so next time a member of your group goes through they will see more dead trees around the area.

Thanks for the species data—we'll add them to our database for the Canterbury Environmental Trust which runs the Environment Education Centre further up the road from where you parked your vehicles that day.

### Day 6—4.1.13 Temple Basin Ski-field

We started at the car park at 9.30 a.m. on a hot sunny day to be welcomed by two friendly kea. A 4WD road runs for c. 1 km up the mountain. Along the side, *Coprosma serrulata* and *Olearia arborescens* (common tree daisy) were flowering, and the pink

male cones on *Podocarpus nivalis* (snow tōtara) shrubs were obvious. Amongst shrubs and tussock grasses, the delicate flowers of *Stegostyla lyallii* (orchids) stood out. Where the terrain steepened, the gravel road changed to a narrow, winding track up to the ski field huts. From there, the first plants of *Ranunculus lyallii* (Mount Cook lilies) were found, and were in full blossom from the ski field to the base of the upper scree slopes. Fields of white celmisia (mountain daisy) flowers e.g. *Celmisia sessiliflora*, *C. armstrongii*, *C. laricifolia*, *C. verbacifolia*, *C. vereteii*, sometimes dotted with pale yellow flowers of hybrid *Dolichoglottis scorzoneroides* x *C. lyallii* were spread along the banks of the many creeks. Beyond the huts we crossed the bridge over the true left fork of the stream, while most people stayed on the true right and proceeded to the screes at the head of the true right branch. We walked through a swamp where *Donatia novae-zelandia* was flowering, and *Coprosma perpusilla* was in berry. Also abundant and not flowering were *Drosera arcturi* (sundew) and *Astelia linearis*. Climbing the screes and dry creeks on the eastern slopes of the true left branch, we saw *Leucogenes grandiceps* (South Island edelweiss), *Viola cunninghamii* (mountain violet) and *Leptinella pyrethrifolia* (button daisy). We finally reached the upper scree slopes above the waterfalls and below the ridge top. A field of big boulders hosted little plant life, with the exception of secretive colonies of *Hebe macrocalyx* var. *macrocalyx* and *Haastia sinclairii* tucked between rocks where the screes were finer and had some surface soil content. At 5.30 p.m., hot and tired after a fantastic day, we turned around and headed home to another great dinner.



*Haastia pulvinaris*. Photo: Pascale Michel.

Owen Spearpoint and Pascale Michel



*Hebe macrocalyx* var. *macrocalyx*. Photo: Pascale Michel.

### Day 7—5.1.13 Cockayne Nature Walk

We admired the engineering of the Otira Viaduct, and the old rātā in full bloom. It was a lovely fine and sunny day, but there were signs of the 500 mm of rain we had had earlier in the week. When we parked at Kelly's Creek, the water was still murky, and the vast quantity of shingle brought down by the flooding creek had piled up to within half a metre of the bridge deck. A bulldozer was working away, but looked very small for such a big job.

The Cockayne Nature Walk is in an area of old West Coast podocarp forest, with large kāmahi, tōtara, rimu, fuchsia, drippy lichens on the trees, and cushioning moss on the track.

We had yet another discussion about *Blechnum montanum*, *B. procerum*, and *B. vulcanicum*, and basal pinnae reduced / not reduced, swept back / cut off straight. We enjoyed seeing larger numbers of healthy *B. nigrum* than we see around Wellington; and the *Leptopteris superba* were indeed superb.

We noticed that the *Coprosma foetidissima* seemed to have a different leaf form to our North Island one. NZPCN says 'Lamina membranaceous to subcoriaceous, obovate to oblong to broadly ovate, obtuse, apiculate to mucronulate, 30-50 × 14-20 mm', so that would seem to cover a bit of variation.

We puzzled over some heavily browsed tips on the carmichaelia by the track, especially as the griselinia and patē had not been touched.

Someone spotted a 4 m tall pōkaka (*Elaeocarpus hookerianus*), still in its juvenile form, and showing no signs yet of maturing. And we admired a giant *Polystichum vestitum*, the size of a small car.

### Day 7—5.1.13 Otira Valley

The Otira Valley was a pleasant contrast of open, sunny, semi- to sub-alpine vegetation, where we had a tea-break among the multi-coloured patchwork of shrub, mat, and ground-hugging conifers. We decided we needed to do more work on these. Another topic for questioning was why some daisy-like plants are called *Brachyglottis*, and some *Olearia*?

We sorted out *Celmisia armstrongii* (orange-brown midrib on upper leaf surface) and *C. lyallii* (strongly striated on the under surface of the leaf). We admired a flowering *Waireia stenopetala*, and our prone posture attracted a group of curious tourists, who politely photographed the subdued little orchid. We enjoyed seeing the tiny but bright yellow *Euphrasia cockayneana*, named for Leonard Cockayne.



*Waireia stenopetala*. Photo: Sunita Singh.

After a couple of hours, we got to the bridge, which was spectacularly sited, spanning two handy house-sized rocks—the only possible bridge position for kilometres. Above the bridge (where the notice said ‘Mountaineering skills required!’), more alpine were seen, including a large-headed leptinella in flower, some ancient, contorted *Melicytus alpinus*, and ‘a field of flowering *Ranunculus lyallii*’.

We met and chatted with a Post Doc student from Hokkaido University, Japan, who was on her fifth NZ visit, studying the pollination of NZ alpine plants. Her special areas of study were The Remarkables, Old Man Range, Mt Hutt, and the Otira Valley. She was given a plant list, and e-mail addresses were swapped.

The three splinter groups enjoyed their alternative trips to:

- **Broken River**—*Anisotome filifolia*, flowering *Notothlaspi rosulatum*, *Leptinella dendyi*.
- **Carrol Hut**—*Dracophyllum* 4m high, lacebark, and swimming with tadpoles
- **Bealey Spur**—excessive heat, marvellous views



*Notothlaspi rosulatum* in seed. Illustration: Eleanor Burton.

Jill and Ian Goodwin

## Day 8—6.1.13 Margaret Tarn/ Bealey Chasm Dobson Walk

## Day 9—7.1.13 Broken River Craigieburn

### Arthur’s Pass Lichen Report

Arthur’s Pass and the surrounding areas are exceptionally rich in lichens. This reflects the wide range of habitats; from dripping beech forests, up to subalpine scrub, tussock and exposed alpine ground and rock; from sunny, rocky riverbeds to the exposed limestone bluffs at arid Castle Hill.

My list covers a tiny fraction of the many lichen species (probably more than all the plant species) in these areas. It is not very representative, as we tended to ignore most of the obvious common lichens, apart from a few for the display table, and concentrate on the unusual and on those of interest for two PhD students doing valuable research. Lars Ludwig is studying *Icmadophila splachnirima* and other members of the family Icmadophilaceae, which including *Thamnolia*, *Siphula* and *Dibaeis*, while Arash Rafat is extending our knowledge of the genus *Usnea*.



*Icmadophila splachnirima*. Photo: Allison Knight.

A quick examination of pale clumps of fruticose lichens yielded seventeen species in six genera. The beautiful, lacy-white, coral lichen, *Cladia retipora*, often occurred on damp, peaty ground, along with the creamier, more finely branched, *Cladonia confusa*, the greener *Cladia sullivani* (sunburned brown in exposed places), and the ubiquitous, spiky *Cladia aggregata*. Various creamy *Usnea* species formed conspicuous clumps on trunks and branches in forest and scrub, and the long, dangling old man’s beard, *U. articulata* added an elfin ambience to the mist forest. On the forest floor and mossy trunks grew finely branched, white *Leifidium tenerum*, with its stalked, powdery black fruit. The straggly, thicker branched and very common *Stereocaulon ramulosum* is more characteristic of disturbed ground beside tracks, and can be distinguished by its brown apothecia (fruit) and the grey nodules of cyanobacteria protruding from its stalks.

*Siphula* species generally have short, flattened branches and are unusual in forming root-like structures embedded in the ground. They often form eye-catching white swards in alpine or open subalpine areas. Thanks to Alf Webb and David Lyttle for spotting *Siphula decumbens* on Bealey Spur.

Diverse pale crusts abounded. Two common ones spreading over disturbed banks were *Baeomyces heteromorphus*, with flesh-coloured to red-brown apothecia on short stalks, and the somewhat similar *Dibaeis arcuata*, with candy-floss pink apothecia on chalky white stalks. *Lecanora epibryon*, with very dark-brown apothecia, is common on dead tussock bases, while black-fruited *Tephromela atra* is found on rock or bark; both are well illustrated by Janet Ledingham in Alan Mark’s excellent new book, *Above the Treeline*. Among the rough grey-white crusts on the short piece of fallen branch brought back for the display table there were three species of *Pertusaria*. Two were common, but I was excited to find that the third had chemistry that matched an undescribed species found on the Boyd Creek trip. I managed to extract some spores under the microscope and sent a piece to Jack Elix in Australia for more advanced chemistry. He explained that a subsidiary chemical made by the lichen was confounding the tests, and that both collections are actually *Pertusaria scutellifera*. It is good to have that three-year-old mystery finally solved. I was also pleased to find pale *Diploschistes gysaceus* for the first time, under a dry limestone overhang at Castle Hill.

Foliose lichens tend to be the biggest and most obvious lichens. *Pseudocyphellaria* and *Sticta*, with their loose, leaf-like lobes are very characteristic of NZ rainforest and there were surely many more species than listed here. *Menegazzia* species, with their curious, hollow, inflated lobes studded with holes, are abundant in the local forests. A new species, *Menegazzia gallowayi* was recently described from Craigieburn Forest. I was sorry not to see this, but pleased to get a photo of the widespread *Menegazzia pertransita*, common on *Nothofagus* trunks at Wilderness Lodge, and also to see Alf’s find of the less common *Peltigera ulcerata* nestling on the ground between stones

on the old bed of Broad Stream.

Like us, lichens can manufacture melanin compounds as sunscreen, as demonstrated by the darkened lobes of *Xanthoparmelia malcolmii*, mingled with the equally dark crustose *Placopsis perrugosa* spreading over the less disturbed rocks at Broad Stream. The latter can be distinguished by the flattened, pinkish to grey nodules of cyanobacteria (cephalodia), which are characteristic of *Placopsis*.

Keenly sought after for Lars's research, but not spotted, was the threatened foliose lichen *Icmadophila splachnirima*, (also illustrated in *Above the Treeline*.)

By far the most exciting find of the trip was *Siphula fastigiata*,

bearing tiny, pink, gall-like nodules, reminiscent of those mentioned in *Flora of NZ Lichens*. Not long before, during the John Child Bryophyte and Lichen Workshop on Stewart Island in November 2012, Lars found apparently fertile specimens of the closely related *Siphula decumbens*. Anatomical characters of the fruits fit well into its family Icmadophilaceae, but as the genus *Siphula* has always been considered to be strictly sterile, this could be a world-first discovery! Based on DNA sequence analysis, he has since established that these really are *Siphula*'s fruiting bodies. We have since found them in four locations on two *Siphula* species, which, however, might represent only one species

comprising two chemotypes, as they are genetically almost identical.

Allison Knight

**Participants:** Bev Abbott, Margaret Aitken, Beth Andrews, Owen Calder, Donna & John Christeller, Barbara Clark, Rae Collins, Gavin Dench, Brett de Vore, Raewyn Empson, Dale Every, Julian Fitter, Ken Fraser, Kathy Gibbings, Ian & Jill Goodwin, Margaret & Richard Herbert, Chris Horne, Brenda Johnston, Allison Knight, Sheelagh Leary, Rodney Lewington, David Lyttle, Pascale Michel, Chris Moore, Syd Moore, Emil Schmiege, Darea Sherratt, Barbara & Neill Simpson, Sunita Singh, Val Smith, Owen Spearpoint, Julia Stace, Alf Webb.

## 2.2.2013: Wainuiomata River – west branch

The valley of the west branch is at the heart of this pre-European climax forest. Here emergent podocarps, rimu, kahikatea, miro and matai, and northern rātā, heavily laden with epiphytes, form a distinct upper tier. Canopy species include tawa, hīnau, rewarewa, pukatea, black and white maire and kāmahi. Plants of the sub-canopy include putaputawētā, kanono, a shade form of *Coprosma rubra*, broadleaf, māhoe, whēkī-ponga and soft tree fern, on whose trunks we found several raukawa (*Raukaua edgerleyi*), and the strap fern *Notogrammitis pseudociliata*. We saw numerous examples of ground-cover species including *Australina pusilla*, pennywort (*Hydrocotyle elongata*), scrub nettle (*Urtica incisa*), and *Uncinia distans*. A patch of waoriki (*Ranunculus amphitrichus*) on the track appeared to have come

from a small wetland to the east, which contained duck weed *Lemna minor*, kānuka, rohutu and swamp maire. On an undercut, shady, river bank, we found the bristle fern *Abrodictyum elongatum*. The dense canopy confined weeds to light-wells caused by windfalls and canopy gaps along the river.

We thank Greater Wellington Regional Council ranger, Grant Timlin, for permission to visit this special place, and wish the council well with the 'mainland island' restoration project. Sixty N.I. robin from Kāpiti Island were released in the area on 15/8/12, joining fourteen N.I. brown kiwi now resident after releases, a few years ago, in the valley of Turere Stream, a tributary of the Orongorongo River.

**Participants:** Peter Beveridge, Jill and Ian Goodwin, Bryan Halliday,

Anthony Hill, Chris Hopkins (leader/scribe), Chris Horne, Sheena Hudson, Rodney Lewington, Barbara Mitcalfe, Leon Perrie, Grant Roberts, Nick Saville, Lara Shepherd, Darea Sherratt, Nina Zimowit.



*Urtica incisa*. Photo: Jeremy Rolfe.

## 2.3.2013: Cannon Point Walkway, Upper Hutt

In ideal conditions, we spent about five hours botanising in regenerating forest, from the Bridge Road, Birchville, end of the track, to the historic, decommissioned, Birchville Dam, and back. We listed about ninety species of native plants in this tributary valley of the Hutt River, including four tree ferns: mamaku, ponga, whēkī and whēkī-ponga, plus an emergent rimu and a northern rātā, and some young kahikatea. We were particularly impressed at a *Huperzia varia* hanging clubmoss, dangling

from its host tree, directly over the track. In addition, we enjoyed hearing a NZ falcon / karearea, a bellbird / korimako and whitehead / pōpokotea.

Greater Wellington Regional Council (GWRC), which manages Akatarawa Forest, including the walkway, maintains possum bait stations in the valley. We listed over thirty species of weeds, e.g. barberry, broom, Himalaya honeysuckle, blackberry, gorse, old man's beard, tall fescue, montbretia, and hedge stachys.

As a supplementary treat on the way home, three of us turned off SH2 c. 100 m south of Moonshine Bridge, onto a dirt road near the Hutt River bank, then drove 1 km along the road to see the seventeen *Ileostylus micranthus* small-flowered mistletoe, on a group of tree lucerne.

**Participants:** Ian Goodwin, Jill Goodwin, Anthony Hill, Bryan Halliday, Chris Horne (leader/scribe), Mick Parsons, Annabel Plowden, Nick Saville, Irene Walshe.

## 29–31.3.2013: Rangitikei and Foxton areas, Manawatu

### Day 1: Ephemeral dune wetlands at Foxton and Himatangi. Round Bush

Most BotSocers were wise enough to take their packs when Jill Rapson (Massey) suggested a quick look at the dunes and wetlands behind Foxton Surf Club where we met. Half an hour soon became two hours as we started learning the treasures and the weeds. Jill's explanations increased our awareness of the dynamism, but poorly understood, inter-relationships between coastal processes, dune processes, and the impacts of farming and forestry on the water levels in the dune wetlands along the Manawatu coast.

The indigenous plants were special. Standing up, we could see *Coprosma acerosa*, the hairy *Pimelea arenaria* (even the petals are hairy), and even the Manawatu endemic *Selliera rotundifolia*. We had to kneel, with eyes close to the ground, to see *Lilaeopsis novae-zelandiae*, *Ranunculus acaulis* and *Triglochin striatum*. Dry wetlands have their advantages.

We lunched before entering the Omarupapako (Round Bush) Scenic Reserve, a 50-ha remnant of coastal swamp forest 4 km north of Foxton Beach. It is a kahikatea / pukatea forest, with flax, raupō and cabbage trees in more open areas. The reserve is one of three coastal reserves in the area that will be managed under DOC's Natural Heritage Management System (NHMS). A web site seeks volunteers for a roster to check mustelid traps in these reserves.

Excellent ice-creams in Himatangi, and a short trip along the wide sandy beach, took us close to our final site for the day, a dry ephemeral wetland on private land. Viv McGlynn (Manawatu) promised spiders, and she produced a baby katipō when she picked up her fourth piece of drift wood. Jill promised and delivered more botanical treasures, all tiny, including *Eleocharis neozelandica*, *Gunnera dentata*, *Isolepis cernua*, the tiny *Isolepis basilaris* and *Myriophyllum votschii*.

Foxton Beach Motor Camp's comfortable tent sites provided relief for tired muscles after so many ups and downs during the day.



*Isolepis cernua*. Photo: Jeremy Rolfe.

### Day 2 (morning): Koitiata Reserve, Turakina

Firstly, context. I am a trumper who knows little about plants. This was my inaugural trip with BotSoc, and I must say, it's all about expectations. I got very excited looking at the trip schedule, because we were meeting at the Turakina Pub. I thought it a little 'hard-core' that the pub-crawl was before we'd done anything, but who am I to change what works...

Sadly, the pub was shut (Easter), and with expectations dashed, I'm sure that someone else has written about the fourteen people gathered on a traffic island, before heading down a side road. Next stop, the most dangerous corner you can find, six cars parked on the side of the road, to look at an exciting giant sedge. As interesting as Colin Ogle's commentary was, I was a tad distracted by the 1500 kg bull standing 20 feet behind him. BotSocers are fearless!

We botanised near the mouth of the Turakina River (Koitiata Recreation Reserve), then headed for Waimahora within the pine forest. The gate was locked, so we went to the lake. Apparently, permission had been obtained from local iwi, but not from surrounding land owners. So we kept an eye-out for unhappy locals, and within minutes had upset some cows which ran to the other end of the field. I felt rather relieved there were no bulls, giant or otherwise.

Strawberry clover was pointed out to me, growing in the paddock. A cruel name, made to make my mouth water.

Safely on the other side of the fence, an intense discussion ensued about whether the carpet of plants on the lakefront was a hydrocotyle or a schizeilema. Certainly, there was raupō which even I could identify, a few bachelor's buttons, forget-me-nots, lotus, veronica, myriophyllum, lilaeopsis, juncus, persicaria ... the list goes on. I got rather confused, remembering a limacella as a green musical instrument, but there were plenty of people to put me right.

I'd like to say a huge thank you for being invited on such a wonderful trip. BotSoc hospitality is hard to beat, and I'll be back again as soon as I am able.

Nga mihi kia koutou.

Margaret Craigie

### Day 2

As we approached Santoft Forest with the intention of botanising the infrequently visited Waimahora wetland within, we soon realised that access was denied, via the locked gate; much to Mick's disbelief, and our amusement. So our magical mystery-tour leader conjured up the backup plan. Lake Kotiati became our shining jewel, with a lake-edge lined with raupō, willows, poplars, cabbage tree, *Coprosma propinqua* agg., one mamaku, much bracken, some smaller botanical treasures among the wetland plants, many exotics, and extensive pasture grasses. Across these grass paddocks, Jill Rapson herded us as the many cows heard us and "moo-ved" along as we approached. Soon we were getting amongst the dirt, admiring *Potentilla anserinoides*, *Limosella* sp. in flower, and yes, we found the newly learnt *Isolepis basilaris* here also, beneath some beggars' ticks, willow weeds, forget-me-nots and many others. Soon Leon and Lara were getting their feet very wet, identifying the endemic *Hydrocotyle sulcata*, and the exotic water fern, *Azolla pinnata*, a new record of invasion for this fern. All in all, it turned out to be a gem of a location, with many small botanical treasures, and lots of unlocked educational potential from our more experienced botanisers handing over

their valuable information to the rest of us. I would like to give my thanks to everyone who delighted us on this leg of the trip. I have a magical mystery-bag of specimens that came home with me which I am still enjoying trying to identify.

Jenny Dolton

### Day 3: Tangimoana foreshore & Tawhirihoe Scientific Reserve

#### *Pasture pines & pampas*

We, the remaining twelve, were guided by Hilary Robson, a local involved in coastal restoration at Tangimoana, and two others also with knowledge of Manawatu plants, Vivienne McGlynn and Jill Rapson. They told us about the impact of the shifting course of the rivers, farming and forestry, on the wetland swales and their vegetation, and about the work done by botany students in recent years.

Near the boat ramp on the south bank of the Rangitikei River we saw the rare *Carex litorosa*, a small, nondescript carex disappearing unnoticed from the coast around NZ. Hilary has been growing and planting it out for some time.



*Carex litorosa*. Photo: Julia Stace.

Falling into the high tide along the estuary's exposed edges are scattered plants of shore cotula, *Leptinella dioica*.

Despite attempts at eradication, the huge grass, *Phragmites australis*, was re-growing at the boat ramp—it is a serious weed problem throughout the estuary. Volunteers were trying hard to control it, but sprays that affect aquatic life cannot be used, so this job is very difficult.

Tawhirihoe Scientific Reserve was set up to protect one of the best remaining wetlands in the Manawatu. It is now an area of wetlands in decline. Oioi, other rushes, *Austroderia toetoe* and cabbage trees are part of the natural progression filling in the wetlands, plus weeds, e.g. pampas and tree lupin. No new wetlands have developed naturally since the land was reserved.

An artificial wetland, dug out and fenced off, has not been as well colonised as hoped, by the tiny wetland plants hanging on nearby. The water in it is still knee-deep, rising from a water table polluted by the expansion of dairying on the Manawatu plains. So the water quality is very poor, with slimes on the bottom of the pond. Previously this wetlands area had clear, clean water when flooded.

As these little wetland plants are naturally submerged in the wetter months, this may be a factor in the lack of colonisation. However the delightful *Selliera rotundifolia* had established there.



*Selliera rotundifolia*. Photo: Barbara Mitcalfe.

We saw a single plant, with a seedling close by, of *Pimelea aceta*. It is rated Nationally Critical and Jill Rapson estimates there may be as few as 40 plants left on the planet, all of them are here probably. Despite efforts to raise, cultivate and plant it out, it continues to disappear. The more common *P. villosa* is scattered through the reserve.

Tawhirihoe Scientific Reserve is criss-crossed with trails destabilising the dunes. We saw numerous quad bikes and motor bikes, despite the signage, 'If you drive on it you will destroy it'.

Interestingly, the local garden waste and weed dump is alongside the scientific reserve. We saw similar dumping at Koitiata settlement where several of us harvested mature pumpkins.

To sum up this weekend, we drove long distances from our base at Foxton Motor Camp to look for remnant populations of tiny wetland plants. This tragedy is compounded by the knowledge that this area was once primeval wetland forest on river plains. Broadly all that remains to be seen today are mature pines on old sand dunes, pasture and pampas.

Julia Stace

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Further insights to the trip can be accessed via the Te Papa website where two of the trip members have regular blogs.

Leon's Te Papa blog:

<http://blog.tepapa.govt.nz/2013/04/02/the-small-and-the-weedy-foxton-field-trip/>

Lara's Te Papa blog:

<http://blog.tepapa.govt.nz/2013/04/11/a-few-more-botanical-highlights-from-the-foxton-fieldtrip-and-a-katipo-spider/>

**Participants:** Bev Abbott, Barbara Clark, Rae Collins, Margaret Craigie, Jenny Dolton, Chris Hopkins, Rodney Lewington, Vivienne McGlynn (Manawatu), Colin Ogle (Whanganui), Mick Parsons, Leon Perrie, Jill Rapson (Manawatu), Hillary Robson (Manawatu), Lara Shepherd, Barbara Simmons, Julia Stace.

We owe special thanks to Jill Rapson and other Manawatu members for guiding us and allowing us to appreciate how special and unique are these neglected coastal sites of the Manawatu.

## 4 May 2013: Taita Scientific Reserve, Lower Hutt

We met at the picnic area with a lone mature tōtara, in Taita's industrial area on Eastern Hutt Road. Everyone received a plant list blank, an aerial cadastral photo of the site, introductory pages from Tony Druce's 1957 "*Botanical Survey of an experimental catchment, Taita, NZ – the central catchment at Taita Experimental Station*", and Tony's map of the site.

We climbed the road serving the house at no. 178, and, at a gate into the north end of the reserve, Paul Blaschke, who had worked in the reserve in the late 1980s—early 1990s, gave us fascinating insights into his work there, the history of the reserve, and its fate following the replacement of the Department of Scientific and Industrial Research (DSIR) by the Crown Research Institutes (CRI). From the 1950s to the early 1990s, the property was the site of DSIR's Soil Bureau. The Director, Norman Taylor, who chose the site, had sought a bush-clad catchment so that its soils could be compared with soils under pasture. Near the Soil Bureau building was an "out-house" for Botany Division, DSIR. Staff included BotSocers Tony Druce, Ian Atkinson, Carol West, plus Geoff Kelly. Landcare Research, the new CRI which absorbed the Soil Bureau and Botany Division, did not want to maintain the Taita site, so its staff were made redundant, or left to work elsewhere. The site is now managed by Kapiti-Wellington Area Office, Department of Conservation. The buildings, and the land out to Eastern Hutt Road are now owned by The Learning Connexion.

We continued up the road, past a side road to a GWRC reservoir, and at the end of a straight stretch of the fire-break / road, we entered shrublands and soon arrived at the well-built fence, in excellent condition, despite being well over 50 years old.

Botanising began apace, as we slowly descended through the shrublands to the track built by Tony Druce and others, still in fine condition, and cleared during a recce the previous week. Here we had morning tea, while Paul examined a steel-pipe structure which he believed once supported some form of DSIR monitoring equipment. We continued to the end of the cleared track, then

dropped steeply to near the floor of the gully. Here were mature hard beech, kiekie, collospermum, filmy ferns, etc. After lunch by a trio of big hard beech, we got down to the creek bed, and botanised both banks, finding a sapling swamp maire, wheki and supplejack. The mature forest community here was in marked contrast to the shrublands above, with their infestation of Spanish heath and pine trees. We climbed out of the valley via a more direct route, to the place where we had crossed the fence in the morning. Among the pleasures were finding the delicate ferns, *Lindsaea trichomanoides* and *L. linearis*, and the greenhood orchid, *Diplodium alobulum*, in flower.



*Diplodium alobulum*. Photo: Jeremy Rolfe.

The April 1994 newsletter includes a report of BotSoc's previous trip into the reserve, led by Dr Ian Atkinson and John Campbell. "The significance of this reserve is in its fire-free status of 40 years, and every effort must be made to perpetuate this," wrote Dr Kath Dickinson in her trip report.

**Participants:** Bev Abbott, Paul Blaschke, Laura De la Rosa, Gavin Dench, Chris Horne (leader / scribe), Rodney Lewington, Grant Roberts, Lea Robertson, Nick Saville, Darea Sherratt, Sunita Singh, Roy Slack, Wynn Udall.



Two views of *Lindsaea linearis*.  
Photos: Jeremy Rolfe.





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by Hugh D. Wilson

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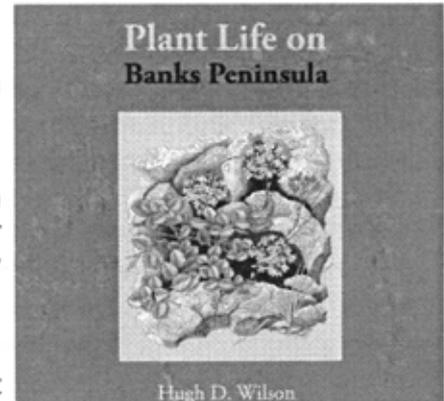
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