

Wellington Botanical Society

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



NEWSLETTER December 2014

Previous issue: September 2014

ISSN 1171-9982

From the Acting President

Firstly let me welcome and introduce to members Karen Palmer who has been nominated by the committee as your next president. We will have a brief Special General Meeting during our normal February meeting to formalise this appointment. Thank you to the committee for your support of me as president over the past the past 2½ years.

The New Year will open with much debate on the merits of a super Wellington City, but we also need to be prepared to make submissions on WCC's "Our Natural City", aka Biodiversity Action Plan, and WCC's and other Territorial Local Authorities' Long-Term Plans. These provide the funding required to continue our efforts to protect and restore our indigenous natural environment. I recall Myfanwy Emeny's October talk about the review of the Biodiversity Action Plan, making mention of the aspirational focus on the necessity to educate the public on the value of the indigenous ecosystem, and that this may be extended to everyone's backyard. This is a journey that we as BotSoc also need to follow as to how we should best take the love of our native botany to the community at large.

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

Richard Herbert

New members

We welcome Gagandeep Jain and Michele Dickson.

*Lea Robertson,,
Treasurer*

Articles for web site

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

www.wellingtonbotsoc.org.nz

Please send your article to:

Richard Herbert

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

Writing for the Bulletin

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

Wellington Botanical Society

Address:	PO Box 10 412, Wellington 6143		
Web site:	www.wellingtonbotsoc.org.nz		
President:	Richard Herbert	232 6828	
Vice-Presidents:	Chris Moore	479 3924	
	Eleanor Burton	479 0497	
Secretary:	Barbara Clark	233 8202	233 2222 (fax)
		e-mail: bj_clark@xtra.co.nz	
Treasurer:	Lea Robertson	473 8211	
Auditor:	Peter Beveridge	237 8777	
Submissions coordinator:	Bev Abbott	475 8468	
Bulletin editor:	Dr Leon Perrie	381 7261 (w)	
		Te Papa, PO Box 467, WN 6140	
Newsletter editor:	Chris Horne	475 7025	475 7253 (fax)
		e-mail: jchorne@paradise.net.nz	
		28 Kaihuia St, Northland, WN 6012	
Annual subscription:	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, at Easter and the first weekend in December.

DEADLINE FOR COPY FOR NEXT ISSUE – 20 April 2015

Articles may be edited for clarity and length

ATTENDING FIELD TRIPS AND MEETINGS

Ideas please

We welcome your ideas about:

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

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

Field trips

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

Clothing for field trips

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

Day trip gear

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

Overnight trip gear and food

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

1 = wool, polypropylene or polarfleece as applicable.

2 Optional

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

BotSoc equipment

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

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

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

Health and safety

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

Fitness and experience

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

Transport reimbursement of drivers

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

Trip leaders

Please draft a trip report for the newsletter.

Meetings

Public transport to meetings

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

TO MEETINGS

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

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

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

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

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

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

FROM MEETINGS

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

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

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

Last service 10.01 p.m.

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

FIELD TRIPS AND EVENING MEETINGS: FEBRUARY–MAY 2015

The following programme IS SUBJECT TO CHANGE. If you wish to join a Saturday trip, please tell the trip leader on the **Thursday p.m. at the latest**, or if you wish to join an over-night trip, please tell the trip leader on the **Wednesday p.m. at the latest**, so that he / she can:

- contact our hosts, if we are visiting a private area, to confirm the visit
- print enough copies of a plant species list, if one has been prepared for the site.

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

Saturday 14 February: Field trip

Centennial Park, Miramar

Botanise this fascinating, little-known reserve of regenerating, semi-coastal native forest. See kiekie en masse – a marker of what Dr Geoff Park classed as ‘primary forest remnants’. Enjoy off-track travel up a beautiful gully. Admire a pre-1911 concrete dam. Travel on Corrections Dept land which is to become part of a Watts Peninsula reserve. Maps: street map; NZTopo50-BQ31 Wellington.

No.2 Miramar bus 8.35 a.m. from Wellington Station Stop A to terminus. Meet 9.15 a.m. at terminus, Darlington Rd. Co-leaders: Chris Horne 475 7025, Barbara Mitcalfe 475 7149.

Monday 16 February: Evening meeting

1. Investigating red algae parasites

2. Regional threat classification

1. Student presentation: Maren Preuss. My thesis focused on red algal parasites in NZ. I used morphological and phylogenetic analysis to describe the new red algal parasite, *Rhodophyllis parasitica*, and phylogenetic studies to understand the relationships between host and the red algal parasite, *Pterocladia hemisphaerica*.

2. Speaker Jeremy Rolfe, DOC: The Department of Conservation and regional councils are working to devise a standardised, rules-based approach for assessing the conservation status of organisms at regional scales. Modelled on the NZ Threat Classification System, and building on the legacy of regional threat lists pioneered by Wellington BotSoc, the Regional Threat Classification System is designed to be used for any group of organisms that occur within a region. The talk will explain how the regional system works and its application to the vascular flora of the Wellington region.

Saturday 7 March: Field trip

Hawkins Hill

Explore remnant and regenerating vegetation south of Brooklyn wind turbine, towards Hawkins Hill 495 m. We'll cover roadside herb communities to short forest, with a mix of interesting (and often little-noticed) indigenous species. Spectacular views of city, suburbs, the ranges and Cook Strait. Meet 9 a.m. Brooklyn wind-turbine carpark, Hawkins Hill Rd off Ashton Fitchett Drive, Panorama Heights. Leader: Leon Perrie, leon.perrie@tepapa.govt.nz, 381 7261 (w), 027 419 1378; deputy leader: Lara Shepherd, lara.shepherd@tepapa.govt.nz, 381 7379 (w).

Monday 16 March: Evening meeting

Managed honeybees in NZ native ecosystems – what's the buzz?

Speaker: Catherine Beard, Science Advisor, Ecology, Terrestrial Ecosystems, Science & Capability, DOC, Hamilton: Honeybees (*Apis mellifera*), native to Europe, Africa & the Middle East, have been intentionally introduced to most parts of the world, including NZ, to produce honey and to improve food-crop pollination. Thus honeybees are seldom seen as detrimental in environments outside their natural range. However, a growing body of evidence from around the world shows that this may be the case. Honeybees compete with native flower visitors for floral resources (pollen, nectar), facilitate reproduction of invasive plant species, alter patterns of pollination in native flora, and may also increase risk of pathogen transfer and disease. How does this appear in a NZ context? Growing pressure from beekeepers wanting access to NZ's native floral resources is compelling conservation managers to seek a better understanding of the environmental risks and advantages associated with managed honeybees. Given a general lack of information about native pollinator networks, and of how honeybees interact with native flora and fauna, this is no easy task. This talk will be about plants, bees, birds and bugs, and also describe how DOC is considering the challenging issue of beehives on public conservation lands.

Friday 3 – Sunday 5 April: Easter field trip Horowhenua

Enjoy this chance to botanise a variety of ecosystems, such as semi-coastal forest, wetland, estuarine, duneland sites, etc. Thanks to advice from Tim Park, Viv McGlynn, Robyn Smith and others, we are seeking

Accommodation – *please book your own*: Levin Holiday Park, 38 Parker Ave, Levin. Ph/Skype 06 368 3549. E-mail: lh@xtra.co.nz, Web: www.levinholidaypark.co.nz. Unlimited tent sites, \$16 pp/pn; 8 x 2-bunk cabins \$50 (twin beds); 11 x basic cabin+toilet \$55 pp/19 pp extra adult (some sleep 2). Check details here: <http://www.aatravel.co.nz/main/bookingform.php?listingId=51176&linkFrom=external>.

Co-leaders: Mick Parsons 972 1148, 06 273 8087 027 249 9663 mtparsons@paradise.net.nz; Frances Forsyth 384 8891, 021 072 5210, frances.forsyth@paradise.net.nz (TBC)

Monday 20 April: Evening meeting

Speaker: Catherine Kirby, author of *Field Guide to New Zealand's Epiphytes, Vines & Mistletoes*: A team led by Catherine Kirby at the University of Waikato has been working on a range of research and promotion projects for New Zealand's fascinating epiphytes. These projects include autecological research, an epiphyte workshop, epiphyte-fauna investigations, epiphyte re-introductions, the NZ Epiphyte Network, and the Field Guide to New Zealand's Epiphytes, Vines & Mistletoes. This talk will describe the key aspects and findings of each project alongside stories and photographs from epiphyting adventures around the country. Future projects will also be discussed and there will be an opportunity to purchase discounted Field Guides (\$35).

Saturday 2 May: Field trip

Botanise regenerating coastal forest and shrublands, plantings, and Tarakena Bay's coastal platform. See impressive views over Cook Strait, and Māori and WWII sites.

We shall prepare a plant list as we walk, so we'll provide you with a blank plant list form—a good chance to practise doing a botanical survey! Maps: street map; NZTopo50-BQ31 Wellington. No. 44 Strathmore bus 8.35 a.m. from Wellington Station Stop C. Meet 9.15 a.m. at bus terminus, Kekerenga St, Strathmore.

Co-leaders: Chris Horne 475 7025, Barbara Mitcalfe 475 7149.

Monday 18 May:

Please share your botanical slides and photographs taken on BotSoc trips, your paintings, drawings and your botanical readings. Slides limited to 20 per person. Plant specimens would add to a memorable evening. Please donate any spare botanical or other natural history books. Valuable books we might auction; less valuable books we shall place on a table for you to inspect, and buy for a gold-coin koha. Either way, you will be helping to raise funds for our awards.

Epiphytes, Vines & Mistletoes

Rangitatau Reserve, Strathmore

Members' evening

NOMINATIONS CALLED FOR

EVENTS

- *Conservation Board nominations for 2015 are now open. Nominations are invited for positions on the 14 conservation boards for the next term beginning 1 July 2015.* There are 36 public vacancies for 2015. Nominations close on Tuesday 20 January 2015 at 5 pm. Any organisation or individual can nominate you for a board. Ensure the nominator signs your nomination form. Experience working on a committee or board would be useful and an active interest in conservation issues is strongly recommended. More information and nomination forms: <http://www.doc.govt.nz/about-doc/statutory-and-advisory-bodies/conservation-boards/> If you have any questions, email Rick McGovern-Wilson at rmcgovern@doc.govt.nz.

- 25 January, 2 p.m. NZ's Veronicas (Hebes) & speedwells. Phil Garnock-Jones. Talk & walk. Cockayne Centre, Otari-Wilton's Bush, 160 Wilton Rd, Wilton.
- 7/2, 7/3, 4/4, 2/5. **Otari-Wilton's Bush Trust plant-care workbees.** Meet 9 a.m., Information Centre, 160 Wilton Rd, Wilton. *Wilbur Dovey 499 1044.*

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

PUBLICATIONS

1. **Landcare Research.** Annual report online and 12 innovation case studies.
 - www.landcare.co.nz
2. **QEII National Trust.** Open Space 876 11/14: blitzing pests; restoring an illegally-devastated covenant; 53,000-ha covenant over most of 4 South Island high-country stations; killing wasps & privet; annual report; *Flora Finder* mobile app; *Coprosma wallii* plantings in Wairarapa covenants; Trevor Thompson, Wairarapa Regional Rep. honoured by Forest & Bird; covenants registered 6/13-6/14; Landcorp registers its 150th covenant; etc.
 - *QEINT*, Box 3314, WN 6140. info@openspace.org.nz
www.openspace.org.nz
- 3a. **Managing your bush block.** A guide to looking after indigenous forest remnants in the Wellington region. Updated edition 3/14.
- 3b. **Restoration planting.** A guide to planning restoration planting in the Wellington region. Updated edition 5/14.
- 3c. **Greater Wellington Regional Council.** Regional Plan Review. 8 9/14: draft Natural Resources Plan for WN region; Whaitua Committees.
- 3d. **KNE plans for Regional Parks are now complete and are on online.** [http://www.gw.govt.nz/document-library-2/For m?keywords=Key+native&publishedFrom=&publishedTo=&activityID=&action_search=Search](http://www.gw.govt.nz/document-library-2/For%20m?keywords=Key+native&publishedFrom=&publishedTo=&activityID=&action_search=Search)
 - *GWRC*, Box 11 646, WN 6142.
4. **NZ Plant Conservation Network.** *Trilepidea*. 130 9/14: Dr Brian Molloy received Allan Mere Award 2014; *Wahlenbergia matthewsii*; *Hibiscus richardsonii* found near Tokomaru Bay; NZPCN forum comes alive; last known hind removed from Secretary Is, Fiordland—the last of 700 deer; *Melicytus* aff. *obovatus* & *M. crassifolius*, Stuart Park, Titahi Bay; NZ's indigenous flora seed bank—one year on; seed collector workshop 10–12/11; University of Cambridge MPhil degree in Conservation Leadership; etc. 131 10/14: annual report; *Celmisia dallii*; *Doodia* & *Blechnum* ferns related?; NZPCN award winners—Ted Lines, Oku Reserve Group, WN, and F&B WN branch nursery; naming *Olearia*; NZ Indigenous Flora Seed Bank update; epiphytes; etc. 132 11/14: more plant scientists needed; *Davillia tasmanii* subsp. *tasmanii*; kakabeak DNA tests; BotSocers Neil & Barbara Simpson receive Inland Otago Conservation Award; volunteers' role at Seed Bank;
 - *NZPCN*, Box 16 102, WN 6242. events@nzpcn.org.nz
5. **NZ Botanical Society.** 118 12/14: *Nematoceras hypogaeum*; Dr Brian Molloy receives Allan Mere Award; regional botsocs' news; Churchill Babington's letters to William Nylander on NZ lichens, 1854-1860; NZ's natives as weeds abroad—more notes & observations; Edward Phillips Turner (1865–1937)—biographical notes by BotSoc Val Smith; *Brachyglottis turneri*; etc.
 - *NZBS*, c/- Canterbury Museum, Rolleston Ave, CH 8013.
6. **Auckland Botanical Society.** *Journal* Vol. 69 (2) 12/14: trip reports; epiphytic water world of *Collosporum hastatum*; *Coprosma* in the Cook Islands; *Lachnagrostis filiformis*; etc. News-sheet 10/14 & 11/14: *Kunzea ericoides* / kānuka split into 10 endemic species; 12/14 – 1/15: phoenix palms end 'lag' time & are now invasive; etc.
 - *ABS*, Box 26 391, Epsom, AK 1334.
<https://sites.google.com/site/aucklandbotanicalsociety/>
7. **Canterbury Botanical Society.** *Journal* 45 2014: Colin Burrows 1931–2014; invasive African daisies: *Helichrysum petiolare* & *Senecio madagascariensis* (possibly a maritime form of *S. skirrhodon*) / gravel groundsel; measured growth on Hinewai Reserve, Banks Peninsula; 61st annual report; etc.
 - *CBS*, Box 8212, Riccarton, CH 8440.
info@canterburybotanicalsociety.org.nz
<http://canterburybotanicalsociety.org.nz>
8. **Wellington Botanical Society.** *Bulletin* 55, 11/14: flora of kahikatea forest remnants in southeastern Hamilton Basin; eco-sourcing; Edward Willis (Ted) Williams 1920-2013; flora of Egeria Rock, northern Kermadecs; *Thelymitra* novelty, Te Mārua; weeding on Raoul Island; a native timber specimen board; habitat preferences for two NZ perching orchids with contrasting abundance & conservation status; BotSoc and Te Mārua Bush. A5, 110 pp, soft cover, colour and b&w images. Non-members: NZ\$20 (NZ, Australia & South Pacific); US\$15 all other countries.
 - *WBS*, Box 10412, Wellington 6143.
www.wellingtonbotsoc.org.nz
9. **Otari-Wilton's Bush Trust.** 12/14: Leonard Cockayne Centre opens; *Parsonsia heterophylla*; etc.
 - *OWB Trust*, 160 Wilton Rd, Wilton, WN 6012.
10. **Forest & Bird.** 354 11/14: climate change; Lincoln University researching use of Russell lupin s a fodder plant; logging West Coast's wind-blown timber; controlling rats on islands; new names for kānuka; *Ranunculus haastii*; 2014 index; etc.
 - *F&B*, Box 631, WN. office@forestandbird.org.nz
www.forestandbird.org.nz
11. **Pipipi.** 40 11/14: joint purchase by two trusts & Christchurch City Council of Grehan Valley, source of Akaroa's water, and near Hinewai's western boundary; deer and possums; *Asplenium flaccidum* & 65 other species of fern on Hinewai; audit of Hinewai's annual carbon sequestration – 7 tonnes of CO₂ / hectare p.a.; *Pittosporum obcordatum* grown from from Okains Bay; etc.
 - *Hinewai Reserve*, RD3 Akaroa 7583. Donations welcome to Maurice White Native Forest Trust, c/o Hinewai, or to BNZ Akaroa 020 832 0044 225 00 – please identify yourself.
12. **Gorge Gazette.** 10/14: rangiora flowering heavy; *Pseudopanax lessonnii* hybrids invasive; destroying wandering willie; etc.
 - *Trelissick Park Group*. www.trelissickpark.org.nz
13. **Friends of Maara Roa.** 10-12/14: the year's planting; plant nursery; etc.
 - www.MaaraRoa.org.nz
14. **FMC Bulletin.** 6/14: Community Conservation Partnership Fund; 'no to Hollyford Road'; global warming threatens forests; oil exploration in Victoria Forest Park?; protecting Stewardship land; pest animals; etc.
 - *Federated Mountain Clubs of NZ Inc*, Box 1604, WN 6140.
www.fmc.org.nz
15. **ECOLink.** 10-11.14: mining Karangahake Gorge?; climate change; pūriri dieback; East Harbour Environmental Association; *Wellington Botanical Society* see p14; etc.
 - *Environment & Conservation Organisations of NZ Inc*, Box 11 057, WN 6142. Ph/fax 385 7545. eco@eco.org.nz
www.eco.org.nz
16. **Trees for Survival.** 10/14: reforestation; planting on beaches; kawakawa; etc.
 - *TfS*, Box 11836, Ellerslie, AK 1142. www.tfs.org.nz
17. **Going native: growing and using NZ native plants.** Ian Spellerberg & the late David Given – 2009 reprint. Reduced to \$7.99.
 - *Canterbury University Press*. Lea Kartman, 03 364 2914
universitypress@canterbury.ac.nz

SUBMISSIONS MADE

Draft Natural Resources Plan (DNRP) for the Wellington Region

It was disturbing to discover that this vast document, (450 pages), doesn't deliver integrated catchment management. The problem goes back to Rule 61 in the Wellington Regional Policy Statement which assigns responsibility for indigenous biodiversity on land to city and district councils through their district plans, but responsibility for indigenous biodiversity in water bodies and coastal water to Greater Wellington Regional Council (GWRC) through the draft Natural Resources Plan. Pest and weed control, which are vital in protecting and enhancing indigenous biodiversity, also fall outside the DNRP.

The DNRP was prepared by GWRC in partnership with the region's mana whenua iwi. It contains draft objectives, policies, rules and/or methods for the use of air, freshwater, coastal marine area, soils, land use, heritage sites, storm-water, waste water and natural hazards. Whaitua communities have started preparing catchment-based policies and rules for some of the region's catchments. We hope they will be asking local and city councils to identify areas of indigenous biodiversity in the catchment that helps protect soils and water quality.

One of the pleasing aspects of the DNRP, however, is its attention to wetlands. A three-tier hierarchy is proposed. Three named wetlands are 'outstanding', and a table presents criteria for assessing the significance of other wetlands.

Our submission suggested ways of making the document more user-friendly, e.g., more definitions, and introductory notes. We have also encouraged GWRC to expand the place-based schedules, with more information about the indigenous plants and ecosystems in wetlands, streams, lakes and coastal waters, as has been done for fish and birds.

This consultation process is pre-statutory. Optimists talk of formal consultation in late 2015.

Draft Suburban Reserves Management Plan 2014

Wellington City Council (WCC) has produced an excellent draft management plan for the 168 Council-administered reserves and open spaces between Khandallah and Miramar. The draft identifies a primary purpose for each reserve. From the Society's perspective, two classifications are of particular interest. 'Natural reserves' provide for the experience of, and/or protection of the natural environment. 'Recreation and/or ecological linkages' which are smaller areas, play a useful role in protecting remnant and emergent vegetation, as well as amenity values. Nine sector maps show the relationship between the 168 reserves, and other open space administered by WCC or the Crown. The city is fortunate to have so much open space.

Our submission supported WCC's intent to obtain statutory protection under the Reserves Act for several areas of open space that are not currently protected. We regard this as more urgent than changing the status of some existing reserves, e.g. from Recreation Reserve to Scenic B.

We've also suggested one priority action for each

zone to help Council determine its priorities for early implementation. It has to balance the benefits gained from investing in indigenous biodiversity, with investing in recreation facilities such as sports fields and mountain-biking. In some zones, we have recommended securing better statutory protection for land under the Reserves Act or the District Plan. In other zones, tackling major weed control issues seemed the top priority.

Discussion of the draft submission at the November committee meeting identified a number of issues which will require further thought and discussion in the lead up to submitting on Council's Draft Biodiversity Action Plan which is expected in early 2015.

Bev Abbott, Submissions Coordinator

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.

If you would like to offer to lead a field trip, or be a deputy leader on a field trip, please contact our programme organiser, Sunita Singh, sunita@actrix.co.nz

*Thank you,
The committee*

BotSoc's Bulletin

Thanks to the work of Leon Perrie, editor, Jill Goodwin, proof-reader, Jeremy Rolfe, formatter, NZ Print Ltd, Trudi Bruhlmann and Barbara Mitcalfe, envelope fillers, bulletin no. 55 was posted to members on 21 November. Please tell us if your copy has not arrived.

The committee

Grants and Awards

The following are this year's award recipients.

Dench Award

- Debra Wotton, for research into causes of rarity;

Jubilee Award

- Debra Wotton, for research into how long *Muehlenbeckia astonii* seed stays viable.

VUW Student Grants

- Gagandeep Jain, for research into whether red pigmentation in *Disphyma australe* confers advantages in dealing with stress (such as salinity);
- Kirsty Yule, for research into preferred hosts of pūriri moth;
- Matt Ryan, for fossil pollen research into changing vegetation in Westland over the last 450,000 years.

Eleanor Burton

E-mail reminders for field trips and evening meetings

If you would like to receive e-mail reminders about BotSoc's trips and meetings, I am happy to send you a standardised reminder note for each event. The e-mail would be sent to BotSocers who are within travelling distance to destinations covered by our field trips, and within reach of Wellington to attend our meetings.

If you would like to receive reminders by e-mail, please send your e-mail address to me: sunita@actrix.co.nz. The e-mail list would not be used for any other purpose.

Sunita Singh
Programme Organiser

Field trips—to go, or not to go

We regret that we had to cancel the 29-30 November field trip to a private QEII National Trust Open Space covenant site in Wairarapa, because we received insufficient indications of interest by Thursday 27 November. On Friday 28 November, several people rang Sunita, the Wellington contact. Had they rung earlier, we would not have decided to cancel the trip.

As noted at the top of our 'Field trips and evening meetings' programme on page 3 of the newsletter, if you wish to join a Saturday trip, please tell the trip leader on the **Thursday p.m. at the latest**, or if you wish to join an overnight trip, please tell the trip leader on the **Wednesday p.m. at the latest**, so that he / she can:

- contact our hosts, if we are visiting a private area, to confirm the visit
- print enough copies of a plant species list, if one has been prepared for the site.

The committee

Wanted: 'Plant of the Month' speakers

If you want a captive audience to talk to about your most loved (or hated!) plant, or simply want to practise your public speaking, then you could give a Plant of the Month talk at the BotSoc meetings. These are short talks of only five minutes duration that focus on a plant or plant group, either native or exotic, that might be of interest to the society.

If you would like to volunteer contact Lara at lara.shepherd@tepapa.govt.nz or ph: 381 7379 (work) or 027 378 7664.

Key Native Ecosystem programme

The Key Native Ecosystem (KNE) programme seeks to protect some of the best examples of different ecosystem types in the Wellington region by managing, reducing or removing threats to their values. Sites with the highest biodiversity values have been identified, then prioritised for management by Greater Wellington Regional Council (GWRC). An interactive map showing the location of KNE sites can be found on the GWRC website at <http://mapping.gw.govt.nz/gwrc/>. The layer can be found in the "Our Environment" theme.

All KNEs will be managed in accordance with three-year KNE plans prepared by GWRC's Biodiversity department in collaboration with landowners and key stakeholders. These plans outline the ecological values and threats specific to each KNE, set out objectives for biodiversity management, and prescribe the operational actions and budget to work towards achieving the objectives. KNE plans have been completed for Baring Head/Ōrua-pouanui, East Harbour Northern Forest, Parangarahu Lakes Area, Queen Elizabeth Park and Whitireia Coast. Links to these plans can be found at: http://www.gw.govt.nz/document-library-2/Form?keywords=Key+native&publishedFrom=&publishedTo=&activityID=&action_search=Search

In the next year plans for another 36 KNE sites will be developed. If you have any questions about the KNE programme, contact Richard Romijn at GWRC.

*Richard Romijn, Team Leader, Biodiversity Management,
Greater Wellington Regional Council Te Pane Matua Taio*

Haywards Scenic Reserve

During our field trip to this Lower Hutt reserve on 5 July, Bev Abbott discovered holes in a bank, with the piles of discarded soil around them. These may have been made by the big black and white dragonfly - *Uropetala carorvei*.

Gavin Dench found an 'exoskeleton' just below the holes, and I brought it home. Check <http://friendswbg.org.nz/newdragonfly.htm> where, near the bottom, you will see photos of similar holes, and a couple of exoskeletons, which match our example pretty well. The only query is that there wasn't much water about our site, but perhaps there was a lot of seepage, which might be enough for the dragonfly nymph. Sam Buckley took a photo of the exoskeleton. Did anyone take a photo of the holes? Check *NatureWatch* where Leon Perrie placed photographs he took on the trip.

Jill Goodwin

**DOC Wellington
Visitor Centre**

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

Conservation House,
18–32 Manners St

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

Open: Mon–Fri 9 a.m. – 5.00 p.m.
Sat 10 a.m. – 3.30 p.m.
Tel: 04 384 7770 Fax: 04 384 7773
E-mail: wellingtonvc@doc.govt.nz
Web: www.doc.govt.nz

New Zealand Government



Department of
Conservation
Te Papa Atawhai

David Galloway

A giant in NZ science has gone and just a week away from completion of the image selection for a popular book on NZ lichens that he has written, to go with the mammoth volumes he has produced on their systematics.

*Brian Patrick
Senior Ecologist
Wildland Consultants Ltd
Ph 03 332 3868*

Email: Brian.Patrick@wildlands.co.nz Web www.wildlands.co.nz

Percy Scenic Reserve News

We have employed Desmond Miti, so we now have two full-time gardeners. We also have the invaluable support of John Van Den Hoeven and Silvia Verwey. Des has been with Downer for two and is keen to improve his horticultural knowledge; to this end he is starting his apprenticeship through H.I.T.O.

I am still learning my role, and have been struggling with two problems, mainly the *Myosotis*, which have suffered fungal attacks. There always seems to be something attacking one part of the collection or another.

We have revamped the alpine rock garden, replanting the spaces where plants have died, also relabelling them. We shall mulch this garden when a suitable gravel / chip has been chosen.

We held an open day on 12 October, with guided tours of the alpine collection, as part of Hutt City Discovery Day. This was a new experience for me and an interesting and enjoyable one. Though we did not have huge numbers, it was a worthwhile exercise and we learnt valuable lessons for future events.

Des and I have been planting out various areas of the reserve, filling in gaps in the planting, and bulking up other areas, notably 19 *Rhopalostylis sapida* / nikau planted in the southern lawn and entrance areas.

Cliff Keilty

Watts Peninsula

Progress at last on Watts Peninsula at the northern tip of the Miramar Peninsula!

I am a community representative on a planning advisory group looking at various aspects of this area, and how it might be developed as a national historic destination. Importantly, this includes both the Defence land and the former prison site. We have already held two workshops, and one on the ecological/recreational values is planned for early 2015. We are charged with reporting to a Governance Group (comprising WCC, Port Nicholson Settlement Trust, Ministry of Culture and Heritage), who in May will submit recommendations to the Government on the future of the land. There's a lot of work to do, but I have been impressed with the progress and sense of goodwill exhibited to date. We intend to consult with the wider community soon, so watch this space.

*Colin Ryder
Watts Peninsula Coalition*

Restoration of Baring Head

The ecological restoration mentioned in previous newsletters is well underway, with many signs of significant progress. The gorse on the river escarpment has been sprayed, and many gorse, boxthorn and lupins on the coastal platform are looking sick. The fencing off of the river, river escarpment, and the river flats in between, will be finished by Christmas. We are arranging to acquire plants for several of the ecological hotspots, once stock have been excluded.

Horned poppy removal is being volunteered, including the energetic Bev Abbott. Paula Warren has organised the first efforts to remove karo from the coastal escarpment.

The Friends are servicing predator traps across the whole block, including a new line of Timms traps west of the river. These have snared two cats and several hedgehogs. The Friends also service two DOC200 trap-lines on the adjoining property to the north, and seek funding for another trap-line along the Orongorongo Station boundary to the east. Small mammal and lizard monitoring is continuing.

So it's all go at Baring Head. As always, we would welcome any help you can offer. Contact me on 478 4391, or at rydercj@xtra.co.nz, if you would like to assist.

*Colin Ryder
Treasurer, Friends of Baring Head*

BotSoccers Ian Armitage and Ann Evans receive awards

In "The Wellys"—Wellingtonian of the Year Awards, Greater Wellington Regional Council has recognised Ian's and Ann's important contributions to the regional environment, namely:

- Ian, who is president of Rimutaka Forest Park Trust, leads 'a team that is reintroducing kiwi into the park, supported by trapping stoats and rats. There are now more than 100 kiwi in 3000 ha of forest.'
- Ann who is a Whareroa Guardian, is 'out in all weathers weeding, planting and inspiring others.' Whareroa Farm Reserve, near Raumati South, has been planted with 45,000 plants in eight years.

Source: The Dominion Post 8 October 2014.

Warning: Wasps in Nelson Lakes National Park

Wasps are very common in the Nelson Lakes area in summer; so wasp stings are a real possibility for anyone in the village, or walking in the bush. Remember this if you are preparing for BotSoc's field trip in January. Always carry with you a supply of fresh antihistamine. Note: St Arnaud is over an hour from the nearest medical assistance in Blenheim.

*Source: DOC advice to job applicants *

Protection of terrestrial vertebrates

I hope you find the blog on legal protection of New Zealand wildlife of interest: <http://blog.tepapa.govt.nz/2014/07/03/what-was-new-zealands-first-fully-protected-native-bird/>

*Colin Miskelly, Curator, Terrestrial Vertebrates,
Te Papa Tongarewa*

Allan Mere presented to Dr Brian Molloy

Canterbury Botanical Society was honoured to host the presentation of the Allan Mere to Dr Brian Molloy by Dr Anthony Wright, president of NZBotSoc.

Canterbury BotSoc was one of many organisations that provided a letter of support to the nomination submitted by Drs Peter de Lange and Peter Heenan. The citation was a long one, because Brian's botanical work has covered a wide range of current disciplines, from biosystematics to conservation ecology, to threatened-plant classification. Importantly Brian has been an effective communicator of conservation science to farmers and conservationists alike, and a mentor to younger colleagues.

The respect and reach of Brian's botanical research and conservation advocacy was reflected in the number of people who attended, with a notably large contingent from Landcare Research, several colleagues of like age who had worked alongside Brian over his six decades with DSIR and later Landcare, The Riccarton Bush Trust, and his daughter Sue Molloy, who represented the Molloy family.

Brian accepted the Allan Mere graciously and when speaking to the Award he said he had always been proud to call himself a botanist. Brian made it clear that he had not worked alone, and his achievements reflected his colleagues' teamwork, and his family's support. He passed on a key message given to him by the late Dr Eric Godley: "above all do good botany".

To the assembled group this award was also a moment for the botanical community to stand alongside Brian after a difficult few years for him and his beloved family.

Canterbury BotSoc presented Brian with a pot of *Leptinella filiformis* to take to his new home.

Source: Canterbury BotSoc December newsletter – report by Alice Shanks.

Editor: Wellington BotSoc was among the organisations which sent a letter in support of the nomination.

Clive Paton receives Loder Cup

The Wellington-Hawke's Bay Conservation Board nominated BotSoccer Clive for the Loder Cup. Hon Maggie Barry, Minister of Conservation, presented the award at the Board's November meeting. There are two parts to the award; a giant cup, and an original art work. The names of all the recipients are engraved on the cup, and it's an impressive list of names. Dr Bruce Clarkson, who chairs the Loder Cup Committee, explained that the committee commissions an appropriate art work for each recipient, so they have a permanent reminder of their award. Clive's painting features northern rātā, recognising the many thousands that he and nearby land owners have planted in recent years. The DOC web site has more details.

Gerald Loder donated the Loder Cup in 1926 to "encourage and honour New Zealanders who work to investigate, promote, retain and cherish our indigenous flora".

Bev Abbott

Kiwiana in London

BotSoccer James Fraser reports from London:

The following lists NZ native plants we planted in Bidy Bunzl's front and back gardens in Brockley, SE London. Bidy bought the house and derelict garden in 1997. So with a clear palette we started planting small NZ trees as structure and for privacy. Lancewoods are a signature species of my business, *Avant Gardener*. I'll start with the trees and work down:

Trees and shrubs

- *Agathis australis*
- *Chordospartium stevensonii*
- *Coprosma propinqua*, *C. acerosa*, *C. kirkii*
- *Cordyline australis*
- *Hoheria populnea*, *H. angustifolia*, *H. sexstylosa*, *H. lyallii*
- *Kunzea ericoides*
- *Leptospermum scoparium*
- *Muehlenbeckia astonii*
- *Myrsine australis*, *M. aquilonia*
- *Olearia paniculata*, *O. albida*
- *Ozothamnus leptophyllus*
- *Pennantia corymbosa*
- *Pittosporum tenuifolium*, *P. tenuifolium* 'Tom thumb', *P. obcordatum*, *P. eugenioides*, *P. crassifolium*
- *Plagianthus regius*
- *Pseudopanax ferox*, *P. arboreus*, *P. laetus*, *P. chathamicus*, *P. lessonii* 'Sabre', *P. crassifolius*
- *Schefflera digitata*
- *Sophora tetraptera*, *S. microphylla* 'Little Baby'

Lianes

- *Muehlenbeckia complexa*

Ferns

- *Cyathea dealbata*

Grasses

- *Anemanthele lessoniana*
- *Chionochloa flavescens*, *C. rubra*

Sedges

- *Leptocarpus similis*
- *Uncinia rubra*

Monocotyledonous plants, other than grasses and sedges

- *Astelia nervosa*, *A. nervosa* 'West Coast Red', *A. chathamicus* 'Silver Spear', *A. banksii*
- *Libertia ixioides*, *L. peregrinans*
- *Phormium cookianum*

Dicotyledonous herbaceous plants

- *Fuchsia procumbens*

The lancewoods in the front attract the most attention as they are now mature and quite large! The kauri is getting up there too...

James Fraser

Marram—a wise choice?

In *The Dominion Post* on 6 October, in the 5-minute quiz on page A11, there was a question from Massey University: What grass is planted to stabilise sand dunes?

The answer: Marram grass.

Surely the use of marram is unwise, given the efforts by DOC, regional councils, territorial local authorities, and coastal care groups, to destroy it on many dune systems. They replace it with the native sand-binders, pīngao / golden sand sedge, or silvery sand grass / spinifex. I see that it is still stated as being the main purpose of marram grass on some web sites: e.g. <http://oceana.org/en/explore/marine-wildlife/marram-grass> and http://en.wikipedia.org/wiki/Ammophila_%28plant%29

Richard Herbert



Spinifex planted at Riversdale Beach. Photo: Jeremy Role.

Botanical lyrics

Sedges have edges, rushes are round, grasses have joints,
all the way down
Freddy Fungus and Alice Alga were living together
in syn...biosis
and lichen it.
But now their marriage is on the rocks.

Warren Jowett, *Canterbury Botanical Society Journal* 45, 2014.

Field Guide to New Zealand's Epiphytes, Vines & Mistletoes

by Catherine Kirby 2014

RRP \$45



The first field guide to specifically profile New Zealand's native epiphytes, vines and mistletoes

- 261 pages, 103 species, over 300 superb photos
- Easy to use with clear botanical information and identification clues

“This is the first time in New Zealand that a book has been devoted to this special group of mostly flowering plants and ferns. Perhaps this is partly because they are so difficult to reach in the tree tops.

The photos are of a high standard and were mostly taken by the author.”

Dr John Dawson

Award-winning co-author of *New Zealand's Native Trees and Nature Guide to the New Zealand Forest*

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

TRIP REPORTS

4 October 2014: East Harbour Regional Park

We started at Wainuiomata's Lees Grove entrance, beneath a closed canopy of tall tree ferns, overtopped by mature *Kunzea robusta* / kānuka. These have inhibited the establishment of broadleaf species for some distance along the track. We saw some good-sized kahikatea on wet ground, before the track climbs a spur through *Fuscospora solandri* / black beech and *F. truncata* / hard beech forest to join the Rātā Ridge Track. Here we saw *Notogrammitis pseudociliata* epiphytic on beech, and discussed whether it was rare, or just overlooked. The Rātā Ridge Track is exposed to southerly storms, so there is historic and recent evidence of this, with many beech trees recently uprooted. The moist air across the ridge crest, and good light, make it an ideal place for orchids, with *Earina autumnalis*, *E. mucronata* and *Dendrobium cunninghamii* abundant, epiphytic and terrestrial. Other orchids we saw: *Drymoanthus adversus*, *D. flavus*

(unc) *Bulbophyllum pygmaeum* (unc), *Pterostylis cardiostigma*, *P. graminea* agg. (unc), *Nematoceras trilobum* agg. "Rimutuka", and *Acianthus sinclairii*.

We saw a grove of aged *Dracophyllum filifolium* to 4 m high (spot height 347 m) before the track descends to the Fern Gully Track junction. The top of this track is well lit.

Here we saw *Gonocarpus incanus*, *Libertia edgariae*, *Morelotia affinis*, *Thelymitra longifolia* agg., *T. sp.*, and *Microtis unifolia* agg., before a

forecast storm broke, with thunder, hail and snow, that sent us scurrying through an extensive area of tree ferns, overtopped by tall kānuka and back to our cars by 3.30 p.m.

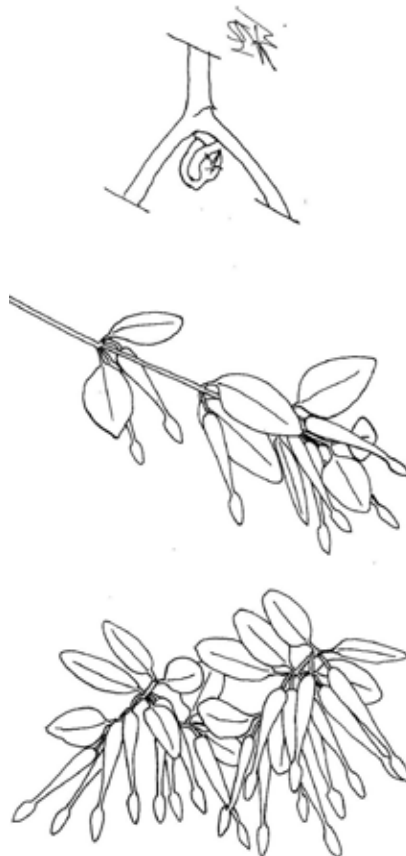
Participants: Peter Beveridge, Gavin Dench, Michele Dickson, Jill & Ian Goodwin, Chris Hopkins (leader / scribe), Chris Horne, Jane Humble, Barbara Mitcalfe, Chris Moore, Allan Munro, Mick Parsons, Leon Perrie, Nick Saville, Lara Shepherd, Sunita Singh.



Bulbophyllum pygmaeum. Photo: Sunita Singh.

1 November 2014: Gibbs Covenant, Eastbourne

Before setting off up the hill, I introduced participants to the property and talked about his efforts with the propagation of a red mistletoe on the property. This 12 ha QEII covenant was established in 1994 to protect an area of predominantly black beech forest, characteristic of the eastern hills of Wellington Harbour, with its focus on a long-established red mistletoe, *Peraxilla tetrapetala*. Efforts to propagate this plant begin in May when the mature fruit drop. A large net is strung up under the plant and checked regularly for fruit—a good harvest being about 70 a week during the peak fall. Each seed is squeezed out of the pericarp with its sticky adhesive and placed on small beech branches (max. 5 mm diameter) to await germination and eventual growth of a 'root'. Germination is high (90%) but establishment to the point of producing a leaf is not (maybe 0.01%). Thus after fifteen years of trying, there are no more than five successful multi-branched 'seedlings' on their



Peraxilla tetrapetala.
Illustration: Eleanor Burton.



Pittosporum divaricatum. Photo: Sunita Singh.

way to flowering maturity. As luck would have it, the most successful was right behind the house on a small sapling beech which itself succumbed last season after the mistletoe had a bumper flowering season and overtaxed the host completely. The BotSoc party unfortunately pre-empted the main flowering season this year, but a few red flowers on the day indicated the scale of the glory that was to come. A highlight was the visit of a tūi, seen

impatiently tweaking some of the early blooms. The party enjoyed a glorious day, working their way to the summit of the ridge for lunch, then along the ridge to join the Muritai Park Track back to Eastbourne. Several of the plants on the list prepared by Pat Enright for the covenant were in flower, ranging from the tiny near-black *Pittosporum divaricatum*, to broad sprays of white *Olearia rani* which is almost in mast-year mode. Orchids, twenty of which are recorded for the covenant, needed a careful search. Both species of *Drymoanthus* were in flower, some *Pterostylis banksii* still with flower heads, with *Gastrodia cunninghami* beginning to rise from the earth. Apart from the tūi, the birdlife encountered included rifleman, fantail, grey warbler and kererū. Pest trapping was noted along the tracks in the covenant, with continuously set Timms traps for possums (10), and peanut-butter-baited Victor rat traps in tunnels (34) which kill mice, rats, stoats, weasels, and small hedgehogs, allowing annual assessment of numbers to be kept. This season, despite a massive beech mast year in November 2013, the numbers of rodents was kept to a minimum throughout the winter by the combined effort of GWRC



Drymoanthus flavus. Photo: Sunita Singh.

staff and MIRO volunteers, with the result that birds have not suffered unduly, and the germination of black beech seedlings on the forest floor has been absolutely phenomenal—coming up throughout the covenant like a cress garden. The main pest plants monitored in the covenant are climbing *Asparagus*, boneseed and the odd *Pinus* seedling.

Participants: Bev Abbott, Peter Beveridge, Helen Bichan, Eleanor

Burton, Gavin Dench, Pat Enright, George Gibbs (leader/ scribe), Ian & Jill Goodwin, Ann, Claire & Meg Graeme, Bryan Halliday, Chris Hopkins, Chris Horne, Jane Humble, Archie & Lynsie Kerr, Rodney Lewington, Chris Moore, Syd Moore, Allan Munro, Phil Parnell, Mick Parsons, Leon Perrie, Lynne Pomare, Bruce & Viv Sampson, Lara Shepherd, Darea Sherratt, Sunita Singh, Julia Stace, Carol West.

15 November 2014: Te Mārua Bush workbee

Nine people attended this weeding workbee on an extremely wet morning. Priority for first-comers was to check the main (original) Bush, which was generally weed-free, except for two small patches of tradescantia, so we concentrated on the southern extension, where the most recent plantings needed releasing from rank grasses. Next, we moved to the east side, near the solitary kahikatea, which is usually a rubbishy area, and always infested with montbretia. This kahikatea, a female, produces a prodigious amount of seed, despite (or because of) serious damage in the snowstorm of 2011. Its seedlings make a welcome addition to F&B's nursery, for planting in local forest remnants. We note that tawa seedlings are more common now in TMB—some almost a metre tall. Despite a droughty period earlier in Spring, tiny black maire and tōtara seedlings were also plentiful, and generally the Bush looked in good condition. We did



Glennis Sheppard inspects the 25 × 27 × 29 m area to be planted adjoining the existing bush. Photo: Allan Sheppard.

not work in the northern extension, because of the adverse conditions, and left earlier than usual, after thankfully emptying our thermoses. This week, Kim Broad, our GWRC contact for TMB, has asked us to list the species which we intend to plant on our Autumn workbee. This information is

needed for the purpose of K.N.E. (Key Native Ecosystem) record-keeping

Participants: Trudi Bruhlmann, Barbara Clark, Chris Horne, Barbara Mitcalfe, Sue Millar (co-leader), Grant Roberts, Glennis, Allan & Graeme Sheppard (co-leaders and scribes).



Membership application

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

I wish to join the Society

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

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

..... Fax (.....)

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

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

Signature Date:..... / /

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

Membership fees for the year ended 30 June 2015 are:

Type of membership: Ordinary \$35; Country \$30; Student \$10; Group / family \$40.

We welcome donations to support research into NZ native plants and to the Jubilee Award Fund.

Please make your cheque payable to Wellington Botanical Society Inc, and send it with this form to:

Wellington Botanical Society Inc., PO Box 10 412, Wellington 6143

My cheque is enclosed for Ordinary membership \$.....

Country membership \$.....

Student membership \$.....

Group / family membership \$.....

Donation \$.....

TOTAL \$.....

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

and e-mail this completed form to the Treasurer at harlea@actrix.co.nz

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

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

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

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

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

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

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

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

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