

Wellington Botanical Society

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



NEWSLETTER

October 2015

Previous issue: May 2015

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President's letter

We were reminded at two of our recent meetings that our native plants are under threat because of their specialised needs for pollination and replication. A P Druce Memorial Lecturer, Bill Lee, addressed the complex interactions between organisms large and small in ensuring successful succession of native plants, and Dave Kelly drew our attention to the dependence of many of our flowering plants on bird pollination in an environment of insufficient birds. As we seek to increase the ecological footprint in Wellington's two ecological districts, we will have to have the foresight and hindsight to ensure that the birds and insects are with us. Is this mission impossible?

The recent NIWA Science Fair for school children junior and senior provided us with hope for the future as the pupils tackled small but significant problem-solving in the natural world. The WBS Prize went to Olivia Healey from Upper Hutt College for her project 'How ecosystems affect native plant growth'. My challenge, our challenge, is to continue to educate our society, and influence our decision makers, that they need to think twice about consequences of grand development plans. Mitigation is not and never was an answer to loss of natural ecosystems. What did you talk about at coffee with friends this week?

Karen Palmer

New members

We welcome the following:

Lorraine Cook, Amelia Geary, Fiona Hodge, Winifred Maindonald.

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	
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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 November 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., Hospital 6.42, Courtenay Place 6.49, opposite Supreme Court 7.00, University 7.05.

No. 23 Mairangi: depart Southgate 7.00 p.m., Hospital 7.17, Courtenay Place 7.22, opposite Supreme Court 7.34, University 7.39.

No. 22 Southgate: depart Mairangi 7.00 p.m., University 7.13.

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: 9.12 p.m. from University.

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

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

Last service 10.01 p.m.

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

FIELD TRIPS AND EVENING MEETINGS: OCTOBER–NOVEMBER 2015 & JANUARY 2016

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 19 October: Evening meeting

Zero Invasive Predators (ZIP)—who we are, and what we're doing

Speaker: Phil Bell. Zero Invasive Predators is a research and development entity, founded by the NEXT Foundation and the Department of Conservation. ZIP is dedicated to developing the tools and techniques to completely remove rats, stoats and possums from large areas of NZ, and then defend those sites from reinvasion. This talk will outline the background to ZIP's establishment, and detail the work ZIP is doing to develop a new approach to predator management in NZ—the 'Remove and Protect' model.

Ocean-atmosphere interactions from south-west NZ, over the last half a million years

Student speaker: Matt Ryan, VUW. Terrestrial pollen and spores (palynomorphs) extracted from marine sediments from the East Tasman Sea are examined to provide insights into how Westland's vegetation and, by inference, climate have responded to global and local climatic changes over the last half a million years.

Saturday 31 October: Field trip

Te Mārua Bush workbee

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

Saturday 7 November: Field trip

Hawkins Hill

We'll explore the ridge from the Brooklyn turbine south to the Airways Corp. radome. The roadside banks are full of interesting plants, in a habitat that is perhaps the closest to subalpine sites near Wellington city. There are fantastic views (on good days). Meet: 9 a.m. at Brooklyn turbine car-park, up Hawkins Hill Rd, off Ashton Fitchett Drive, Brooklyn West. 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 November: Evening meeting

Botany of the Waikato

Speaker: Paula Reeves, Ecologist, Waipa District Council, Waikato. Dairy country. To most the Waikato seems like a flat patchwork of exotic grasses, hedges and lonely clusters of kahikatea. Look a little closer at the river terraces, the deep gullies associated with the mighty Waikato River, the western karst landscape, and venture into the extensive wetland remnants, and you'll discover plenty to interest those with a botanical bent. Paula will cover some of the highlights of the flora in the Waikato Region, and some of the efforts being taken to restore it. *Student:* Olivia Healey, Upper Hutt College, winner of BotSoc's NIWA Wellington Science Fair prize, will describe her project: "How ecosystems affect native plants".

28–29 November: Field trip

Featherston area

Botanising possibilities: Manganui Valley (private land); lower Tauherenikau River gorge off Bucks Rd end; tracks in Rimutaka Summit lookout area; Featherston's Barr Brown Reserve & One Tree Hill walkway. Meet Saturday 9.30 a.m. at Dorset Square, Moore St, corner of SH2. Accommodation: Featherston Motels & Camping, 4 Fitzherbert St, Featherston. Ph 06 308 9852. Book via Google. \$12 pp/night for use of all facilities, otherwise \$8. ALTERNATIVE: If you would prefer a room: Race Track Ranch, SH2, Tauherenikau, \$16 pp/n (bring own sheets/pillow) 06 308 9026 / 021 271 0364. Simple rooms with 1 bed or 2 beds available for the same price. Bookings must be made in advance. See: <http://www.travelbug.co.nz/wairarapa-accommodation/featherston/backpackers/race-track-ranch-racetf?startDate=2015-11-28> OR wairarapa.racing@xtra.co.nz. Pot luck dinner Saturday night. Leader: Chris Hopkins ph 564 3980, e-mail hopkinschris@xtra.co.nz; deputy leader Sunita Singh 387 9955, 027 405 2987, sunita@actrix.co.nz

17–24 January 2016: Summer trip

Western Waikato

Karst landscapes, wetlands, Pirongia Forest Park, Kawhia & Aotea harbours and more. Accommodation: we have booked Te Kauri Lodge, SH31, Kawhia Rd. The lodge is on the edge of 1,100 ha of well-tracked native bush managed by DOC. Details of the trip are being finalised.

The lodge is over seven hours drive from Wellington. To break the journey, we propose to stay the night of 16 January at Andy Maloney's cottage, Horopito, near Ohakune. Here, we will assist by preparing a plant list for the property before driving to Kawhia on 17 January.

Bookings: Please tell Mick as soon as you can about your interest in coming. This will allow us to cater for individual needs on a satisfactory basis, and allow distribution of trip information earlier. Registration form at the end of this newsletter.

Maps: NZTopo50 BE32 Kawhia, BE33 Pirongia. **Further information:** BotSoc Bulletin no. 43 April 1987 – *Flora & vegetation of parts of Tawarau Forest, Western King Country*.

Deadline for registrations and deposits: 30 November 2015.

EVENTS

- *1st Saturday each month 9 am. Plant care workbee.* Meet at Information Centre, Otari-Wilton's Bush, 160 Wilton Rd, Wilton, WN.
Leader: Wilbur Dovey, 499 1044.
- *25 October, 2 pm. Workshop on small-leaved plants & divaricates, part 2.* Talk + walk, 2 hours. Meet at Leonard Cockayne Centre, Otari-Wilton's Bush, 160 Wilton Rd, Wilton, WN.
Leader: Dr Leon Perrie.
- *28-30 October. NZ Plant Conservation Network (NZPCN) conference, Dunedin.*
Register at www.nzpcn.org.nz.
- *30 October, 12.40 – 1.10 p.m. NZPCN AGM.* Kākāpō Room, Otago Museum, 419 Great King St., Dunedin.
Register at www.nzpcn.org.nz.
- *25 November, 2 p.m.* The tricks of the trade: adapting to survive. Walk, 1 hour. Meet at Information Centre, Otari-Wilton's Bush, 160 Wilton Rd, Wilton, WN.
Leader: Finn Michalak.

PUBLICATIONS

1a. Greater Wellington Regional Council 10-year plan 2015–25.

1b. **Natural Resources Plan.** 11, 7/15: Proposed plan for Wellington; Ruamāhanga Whaitua Cttee; Te Awarua o Porirua Whaitua Cttee.

- *Greater Wellington Regional Council.*
www.gw.govt.nz/your-environment

2a. Our Natural Capital – Wellington's biodiversity strategy and action plan 2015. 115 pp.

2b. **Branch Out.** Winter/15: trials with a Brazilian beetle for tradescantia control; etc. Spring/15: Huntleigh Park trial-planting of epiphytes; planting tallies since 2007; etc.

- *Wellington City Council* www.wcc.govt.nz

3. **Trilepidea.** 138 5/15: NZ Indigenous Flora Seed Bank – training; *Carex rubicunda*; NZPCN conference 10/15; etc. 140 7/15: Conference 2015; *Aciphylla difffenbachii*; Council member profiles; volunteers at NZ Indigenous Flora Seed Bank; *Collospermum* sunk back into *Astelia*; Hall's tōtara now *Podocarpus laetus*; "Common Ground: Who's who in NZ

botanical names", by Val Smith; seedling survival & growth in urban forest restoration planting; 141 8/15: AGM 30/10 Dunedin; Council member profiles; *Cassutha paniculata*; Prebbleton Nature Park once a gravel pit; NZ Indigenous Flora Seed Bank; NZPCN conference & AGM; *Uncinia* is now *Carex*; etc.

- *NZ Plant Conservation Network* events@nzpcn.org.nz.

4. **NZ Botanical Society.** 6/15: *Celmisia sessiliflora*; botanical societies' news; David Galloway; John William Hall 1830-1915, botanist – *Podocarpus hallii* and Hall's Arboretum; Andrew Davidson Beddie 1881-1962 – *Chionochloa beddiei*. 9/15: *Pittosporum cornifolium*; Allan Mere awarded to Sir Alan Mark; botanical societies' news; *Brachyglottis turneri*; Leslie Stuart Mackie 1884-1943; etc. Subscription \$25 p.a.; full-time students \$12.

- *NZBS, c/- Canterbury Museum, Rolleston Ave, CH 8013.*
www.nzbotanicalsociety.org.nz

5a. **Auckland Botanical Society.** Journal Vol 70(1) 6/15. trip reports; weedy buttercups; etc.

5b. **News-sheet 7/15:** *Raukawa edgerleyi*; etc. 8/15: Hall's tōtara now *Podocarpus laetus*; report on Plant Families Workshop 18.7.15; *Strigula novaezealandiae*; *Collospermum* sunk back into *Astelia*; etc.

- *ABS, Box 26 381, Epsom, AK.*

6. **2016 calendar.** \$20. Multiple copies \$18 each. P&P \$2.50.

- *Botanical Society of Otago.* bsot@otago.ac.nz with name & address

7. **Otari-Wilton's Bush Trust.** News and Views. 6/15: Otari awards; using real plants as teaching tools; *Helichrysum dimorphum*; etc. 9/15: *Melicytus* aff. *obovatus* returned to Titahi Bay; Botanic Gardens' staff review; Te Papa and VUW research in Otari; pest animal control; *Myosotis rakiura*; etc.

- *Otari-Wilton's Bush Trust, 160 Wilton Rd, Wilton, WN 6012.*

8. **Friends of Wellington Botanic Garden.** 9/15: WBG's native forest areas – part VI; Children's Garden – progress; etc.

- <http://friendswbg.org.nz/nomenu/2015/SEPTEMBER2015NEWSLETTER.pdf>
or <http://friendswbg.org.nz> and go to menu item 'newsletters.'

9. **Rahui.** Winter 2015: biodiversity – where to from here?; Wellington – a break from the past; eco-sourcing of native plants; annual report 2014-15; Otari Bush Project – MoU with WCC awaited; advocacy; native plant restoration group; etc.

- *Wellington Branch, Forest & Bird Protection Society, Box 4183, WN.*

10. **Federated Mountain Clubs.** Bulletin 200, 6/15: Battle for the Birds; Aotea Conservation Park opened; DOC's Ruataniwha Dam plan unlawful; wilderness; South Island wilderness update; possibilities for North Island wilderness areas; etc. 201, 8/15: OSH legislation; stewardship lands; Morven Hills tenure review;

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

conservation spending cuts; South Island high country & conservation parks; Ka Whata Tu o Rakihouia Conservation Park & Molesworth Recreation Reserve; Ruataniwha Conservation Park; a Remarkables Conservation Park?; etc.

- *FMC, Box 1604, WN 6140. www.fmc.org.nz*

11. **Ecolink.** 5-6/15: climate change targets for Paris; Environmental Reporting bill; pūriri dieback; RMA changes brewing; NZ's indigenous conifers; etc.

- *Environment & Conservation Organisations of NZ Inc, Box 11 057, WN 6142. eco@eco.org.nz*

12. **Forest & Bird.** 356 5/15: making a stand for nature; save the RMA; 1080; Battle for our Birds; saving freshwater in Canterbury; F&B projects in Ashburton Lakes & beyond; the cost of dairying; Ruataniwha decision; wasps; Lake Papaitonga; *Armillaria* mushrooms; Kermadecs; the biodiversity challenge of climate change; Moutohorā Island; etc. 357 spring/15: marine reserves; Govt. to prepare National Policy Statement on biodiversity; 1080; protecting oceans; Ngā Whenua Rāhui – conserving the land; remnant dune lake destroyed by NZTA on Kāpiti Coast; global warming; protecting estuaries; Project Mohua in Golden Bay; Bushy Park near Whanganui; kohekohe; Hakatere Conservation Park; ants; etc.

- *Forest & Bird Protection Society, Box 631, WN 6140. www.forestandbird.org.nz/contact-us*

13. **Pipipi.** 41, 5/15: Adjoining Grehan catchment to become a reserve; native mudwort, pygmy mudcrop & tiger-worm turf; falcons; tūi; wilding conifers, sycamore maples, hawthorn; gorse over-topped; etc.

- *Maurice White Native Forest Trust, c/- Hinewai Reserve, RD3, Akaroa 7583. Donations welcome.*

14. **Muelleria.** Vol 33, 2014-15. Available on loan.

- *Royal Botanic Gardens Melbourne library@rbg.vic.gov.au*

15. **Willdenowia.** 45-2 8/15. Available on loan.

- *Botanic Garden & Botanical Museum Berlin-Dahlem.*

SUBMISSIONS MADE

As there have been no new submissions recently, we can report on what's been happening as a result of some earlier consultation processes.

• **Town Belt Bill introduced into Parliament.**

The Wellington Town Belt Bill had its first reading in Parliament on 16.9.15. It was an amicable affair. Grant Robertson, who introduced the bill, used his ten minutes effectively, and was congratulated by several other speakers for his persistence over fourteen years in seeking this law change. All speakers acknowledged the high quality work done by Wellington City Council in preparing the draft bill. Many spoke of their pleasure at learning that, when the bill is passed, it will be possible to add land to the Town Belt. Tensions with the Public Works Act didn't get much air time.

The Local Government and Environment Committee is calling for public submissions. We will be supporting the Bill. Our submission will comment on provisions which are particularly relevant to the Society, e.g., one of the principles is that the Wellington Town Belt should support healthy indigenous ecosystems. Submissions close on 29 October 2015.

• **Our Natural Capital: Wellington's biodiversity strategy and action plan 2015**

Wellington City Council (WCC) has approved Our Natural Capital after a very thorough public consultation process. Members may recall Myfanwy Emeny testing some early ideas with BotSoc at its meeting in October 2014. Some key points from our submission on the draft are in the May newsletter. Council commended the high quality of the submissions and responded positively to recommendations, seeking, e.g., more attention to the marine environment, freshwater ecosystems, cat

management, and the protection of biodiversity on private land. The 22-page Action Plan is detailed and ambitious. The actions are set out under four themes (Protect, Restore, Connect, Research). The 'connect' theme is the major change over the previous strategy. Its intent includes helping people to encounter nature on a daily basis, and understand the importance and value of biodiversity to their well-being. These four themes generate forty-nine objectives, which lead to 213 actions. Each action has a priority (1, 2, 3), a time-frame (short, medium, long, ongoing), and a funding recommendation (new, existing, expand). For example:

Support the capacity of new and existing community groups to engage in pest control and pest plant control. (Priority 1. Ongoing. Expansion of existing funding).

Work with local farmers to fence and plant riparian areas on their land. (Priority 2. Long term. New funding).

Two sets of guidelines, eco-sourcing, and community-tiered support, included as appendices in the draft plan, have been removed to allow for further discussion with interested parties such as ourselves. We can expect an invitation "in the near future".

There is increased positive acknowledgement of mountain-biking for the role it plays in connecting people to nature. WCC recognises the tension between helping people access natural areas, and protecting ecologically sensitive areas from further fragmentation. The development of criteria for track development is likely to involve mountain-bikers, walkers and conservation groups.

In our submission on WCC's Long-Term Plan 2015-25, we asked Council to announce an increase in funding for implementation of Our Natural Capital. Council has done so, with an addition of almost \$3 million over ten years.

This means staff will be able to start some of the new short-term and ongoing initiatives, and expand some existing programmes.

The final chapter is worth reading as it explains the reasoning behind the goals, objectives and actions. It also includes many 'guidelines' that read like policies or principles. For example: Restoring the integrity and habitat complexity of our ecologically significant areas is a priority.

Riparian planting will form no less than 20% of total WCC planting per annum and focus on areas requiring shading or stream-bank stabilisation.

Community groups will be engaged in monitoring specific sites and species, and given the support and training required.

Perhaps the most welcome news in Our Natural Capital is WCC's commitment to expand the number of hectares of ecologically significant public land under integrated pest control from 52% in 2014, to meet the agreed target of 70% by 2020, and 100% by 2025. The development of a revised pest-management plan is one of the short-term, priority actions.

Bev Abbott

Submissions Coordinator

SUBMISSIONS CALLED FOR

21 October. **Porirua Outdoor Recreation Park proposal.** (incl. Spicer Forest, Spicer Botanical Park, Colonial Knob Sc. Res., Te Rahui o Rangitūhi, Porirua Sc. Res.) Topics: track & entrance development, present & future recreational activities, landscape mgmt, how to reduce user conflicts, etc. See www.pcc.govt.nz, keyword "consultorp".

29 October. **Wellington Town Belt Bill.** Submissions to Local Government & Environment Select Committee.

www.parliament.nz for details.

Jubilee Award 2015— 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 NZ's indigenous flora, and to commemorate the Society's Jubilee in 1989.

Purpose of the award

The Award is open to anyone working in NZ. It will be granted for: fieldwork; artistic endeavour; publication; research; propagation or cultivation of NZ native plants for educational purposes, and/or other studies which promote the better understanding of NZ's indigenous flora and vegetation. The interpretation of these conditions will be flexible, except that the main criterion will be the furtherance of knowledge or promotion of the intrinsic value of NZ's indigenous flora and vegetation. The Award may be used to defray costs such as travel, accommodation, materials or publication.

Applications for the Award

Applications should be made in typescript to: Secretary, Wellington Botanical Society, PO Box 10 412, Wellington 6143, or by e-mail to bj.clark@xtra.co.nz, by 30 September 2015.

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

1. the applicant's name,
2. postal address, telephone number and e-mail address.
3. any relevant position held
4. a summary statement of the applicant's accomplishments in the field of botany – no more than one page
5. an outline and timetable for the proposed project for which the Award is sought
6. 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 30 November.

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.

QSMs awarded to Brian Rance & Chris Rance

We congratulate BotSocers Brian and Chris who in the Queen's Birthday Honours were each awarded a Queen's Service Medal for services to conservation. Their decades of work professionally, and as volunteers running their plant nursery, and organising revegetation and pest control workbees, near Invercargill, have been rightly recognised.

The committee

Tradescantia eliminated from Stephens Island

For details about the methods used, contact Jamie MacKay: Jamie.MacKay@wildlands.co.nz

Books for sale

We thank Alison Druce for donating the following books from the collection of her parents, Tony and Helen Druce, Sheena Hudson for bringing the books from Alison, her neighbour, and Dr Carol West for setting the reserve price on each. The money raised will be Alison's contribution to our Jubilee Award Fund. Thank you, Alison!

- *NZ plants and their story*. L Cockayne. 4th edition. 1967. 269 pp. \$30.00.
- *Plants of NZ*. R M Laing & E W Blackwell. 5th edition – revised 1953 (?). 499 pp, dust wrapper. \$40.00.
- *NZ native plant studies*. W C Davies. 1956. 328 pp. Some foxing on cover. \$40.00.
- *The trees and shrubs of NZ*. L Cockayne & E Phillips Turner. 1938, 176 pp.

The committee

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*

2015/16 committee

At the 76th Annual General Meeting, held on 17 August 2015, the following were elected:

President	Karen Palmer	499 1381
Vice-Presidents	Lara Shepherd	384 7147
	Owen Spearpoint	562 8780
Secretary	Barbara Clark	233 8202
Treasurer	Lea Robertson	473 8211
Auditor	Rita Chin	802 5278
Committee	Eleanor Burton	479 0497
	Frances Forsyth	384 8891
	Richard Herbert	232 6828
	Chris Horne	475 7025
	Sunita Singh	387 9955
Submissions coordinator	Bev Abbott	475 8468
Bulletin editor	Leon Perrie	381 7261 (w)

President's Report to the 76th Annual General Meeting

Once again this has been a stimulating and interesting year for WBS. My special thanks go to Richard Herbert who continued as interim President until November 2014, as well as being a Vice-President. The highlights of the year included the summer camp held at Nelson Lakes National Park and vicinity, attended by 39 BotSocers, and the AP Druce Memorial Lecture 2014 given by John Barkla, Partnership Ranger, DOC Coastal Otago District, entitled 'The special plants and places of Otago'.

Membership: 2014/2015

There was a slight decrease in membership recorded over the year. It now comprises 108 Ordinary Members, 37 Country Members, 59 Group Members, 34 Life Members, and 4 Student Members. Thus the total membership figure is 242, down from 251 last year.

Thirteen members, including four couples, resigned during the year for various reasons, e.g., family commitments, health, and shifts out of the region. We wish them well. We welcomed eight new members, including two people who have rejoined.

We acknowledge the deaths of four long-standing Society members. Two life members, Dr David Galloway of Otago, and Dr Elizabeth Brown of New South Wales, died in December 2014 and November 2013 respectively. Esme Finch and Dave Holey, who both joined the Society in the 1990s, died in June and September 2014.

Trips

The main field trip of the year was the summer camp at Nelson Lakes National Park and vicinity attended by 39 BotSocers. The Travers Sabine Lodge was an ideal base for forays to Beeby's Knob, Red Hills, Parachute Rock on the St Arnaud Range, and Rainbow Ski Field. The last day was spent in the Upper Wairau Valley – a 4WD special with stops in unusual settings for unusual plants. Thanks to Mick Parsons and his committee members, his contacts and the many supporters who made this such a great trip. A full report appears in the BotSoc newsletter May 2015.

We made twelve field trips around the Greater Wellington area with two others cancelled. Sadly one of trip was cancelled because of lack of member interest. Species lists for native and exotic vegetation were prepared for each trip. The updated lists are lodged with the private owner, or land managing agency, as well as the NZ Plant Conservation Network. Two workbees were held at Te Mārua Bush, a bush remnant in Kaitoke Regional Park where BotSoc works in partnership with Wellington Regional Council and Upper Hutt Branch, Forest & Bird Society. Detailed trip reports are published in the newsletters. The average attendance at field trips and workbees is fifteen members.

The list of trips undertaken appears at the end of this report.

Meetings

Ten meetings were held on the third Monday of each month from February to November. The average attendance at the ten meetings was 37 members. The best attended meeting of 47 members was the talk by Catherine Kirby, author of *Field Guide to Epiphytes, Vines and Mistletoes*, about the

research project that resulted in the Field Guide. The lowest number of members, only 21, was recorded at Members' Evening, perhaps begging the question about the value of this evening in future.

A 'Plant of the Month' talk was presented by members at three meetings. We hope that this activity will increase to one at each meeting. A plant of interest to you, exotic or native, that others may not know much about, could be an excellent talking point. Lara Shepherd would be pleased to hear from you.

A detailed list of the meetings is at the end of this report.

Communications

Newsletter

Three newsletters were produced during the year – September and December 2014, and May 2015. Thank you to Chris Horne for compiling the newsletters, and to Jeremy Rolfe for formatting and finalising their production. The newsletter is now posted mainly to members without access to e-mail, and to non-member related organisation. Members receive an e-mail alert that the newsletter is available on the web site. Members can then print some or all of the newsletter for their use as they wish. The newsletter is a valuable source of information for members, as well as a record of BotSoc's activities.

Web site

www.wellingtonbotsoc.org.nz is managed by Richard Herbert. It is an excellent public face for BotSoc, and provides a site for the very many enquiries into our activities. Thank you Julia White for dealing with these requests.

Bulletin

Bulletin No. 55 was published in December 2014. It is an excellent source of botanical argument and information. Our congratulations to Leon Perrie, the Editor.

Community outreach

- The Society provided judges for the 2014 NIWA Wellington Science and Technology Fair. The Science Prize winner spoke about her study on 'Green Roofs' at the November evening meeting.
- The newsletter was distributed to related organisations, libraries and Citizen Advice Bureaux.
- Our field trips, open to the public, are advertised in the Wellington Glean Report.
- We supported the annual Otari-Wilton's Bush Open Day.

Submissions

The Society has continued to make submissions on local, regional and national draft plans and strategies that affect NZ's indigenous plants and ecosystems. Bev Abbott was again co-opted on to the committee as Submissions Coordinator. She has put a large amount of time into researching and drafting submissions for the committee to consider, including providing BotSoc's view to hearings. Thank you, Bev, for your hard work.

These responses to draft plans and strategies are a very effective way of informing the public about the ecological and biodiversity values that the Wellington Botanical Society represents. A summary of the submissions is published in each newsletter.

The submissions presented this year:

- Draft Suburban Reserves Management Plan, Wellington City Council (WCC)
- *Our Natural Capital* - Draft Biodiversity Strategy and Action Plan, WCC
- Draft Natural Resources Plan, Greater Wellington Regional Council (GWRC)
- Draft Long-term Plan, 2015-2025, WCC
- Draft Statement of Service Provision, WCC
- Draft Implementation Plan for the Draft Wellington Urban Growth Plan 2014—2043, WCC
- Draft Infrastructure Strategy, 2015-2045, WCC
- Draft Long-term Plan 2015-25, Porirua City Council
- Draft Long-term Plan 2015-25, GWRC

Awards:

- Jubilee Award 2014 was awarded to Debra Wotton for research into whether *Muehlenbeckia astonii* forms a persistent seed bank.
- **Arnold and Ruth Dench Award 2014** was presented to Debra Wotton for research into rarity.
- **VUW School of Biological Sciences—Student Field Grants:**
 - Gangandeep Jain, for research into whether red pigmentation in *Disphyma australe* confers advantage 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.
- Tom Moss Student Award in Bryology – No applicants in 2014.
- **2014 NIWA Science Fair Award**—Sophie Russell, a year-8 pupil at Northland School. Her project compared the heat retention and rainwater runoff of three roofing types. She was able to show that a “Green Roof” planted with *Scleranthus*, *Acaena* and small *Festuca* minimised

rainwater run-off, and kept a building cooler than one roofed with corrugated iron, and one roofed with tiles.

The Committee

The committee met bimonthly during the past year at people’s homes. As no President was elected at the last AGM, Vice-president Richard Herbert continued as Acting President until Karen Palmer took the position in November, confirmed at a Special General Meeting in February 2015. My special thanks go to Barbara Clark, secretary, and Frances Forsyth, minute secretary, for keeping us up to date with correspondence and minutes. Thanks also to treasurer, Lea Robertson, who has the financial and membership responsibilities; to Sunita Singh who has continues to organise an amazing variety of guest speakers and field trip programmes, and to Eleanor Burton, Owen Spearpoint, Lara Shepherd and Chris Horne who each contribute so much to the Committee and BotSoc.

Eleanor has arranged for future committee meetings to be held at the Leonard Cockayne Centre, Otari-Wilton’s Bush, a very appropriate setting.

Other acknowledgements:

- Jeremy Rolfe for formatting the newsletter and bulletin
- Barbara and Kevin Clark for the committee barbeque before the February meeting – great food at a great venue.
- Mick Parsons and his team for the wonderful summer camp at Nelson Lakes National Park and vicinity, Sunita for the booking arrangements, and all the 4WD drivers!
- Leon Perrie, editor of the bulletin, contributors, and all those involved in preparing it and distributing it.
- All our guest speakers and members who contributed to the programme
- Members who had assisted in the raising of funds for the Jubilee Fund including offering plants for sale, providing and buying books at auction.

Karen Palmer, President

Field trips

Date	Locations	Attendance
6.9.14	East Harbour Regional Park, Eastbourne side. Cancelled – drizzle	0
4.10.14	East Harbour Regional Park, Wainuiomata side	16
1.11.14	Gibbs Covenant, Eastbourne	33
15.11.14	Te Mārua Bush workbee	9
29/30.11.14	Porter’s covenant, Riversdale, Wairarapa. Cancelled	0
7–13.1.15	Nelson Lakes National Park and Mt Richmond Forest Park	39
14.2.15	Centennial Reserve, Miramar	17
7.3.15	Hawkins Hill	11
3-5.4.15	Horowhenua	14
2.5.15	Rangitatau Reserve, Strathmore	14
6.6.15	Kohekohe Loop Track, Paekakariki	16
13.6.15	Te Mārua Bush workbee.	14
4.6.15	Porirua Scenic Reserve – northern area	18
1.8.15	Taparanga Block, Baring Head	22
	TOTAL	223
	AVERAGE	15.9

Evening meetings

Date	Subject	Attendance
18.8.14	Annual General Meeting. Druce Memorial Lecture: The special plants and places of Otago.	41
15.9.14	Māori cultivation of NZ plants.	43
20.10.14	<i>Our Natural Capital - Biodiversity Action Plan</i> review.	42
17.11.14	Biodiversity plan for V.U.W. Kelburn campus. Science Fair prize winner - How green is a green roof?	23
14.2.15	Regional threat classification. V.U.W. Student Field Grant winner -Red algae parasites.	39
16.3.15	Managed honeybees in NZ's native ecosystems – what's the buzz?	39
20.4.15	Epiphytes, vines and mistletoes	47
18.5.15	Members' evening	21
15.6.15	Whareroa Farm Reserve; V.U.W. Student Field Grant winner - Cliff vegetation, Lord Howe Island	39
20.7.15	Is the decline of bird populations threatening native plants, and can we fix it?	50
	TOTAL	345
	AVERAGE	34.5

Plant of the month

Presentations were made before the main speaker at the following meetings:

Date	Presenter	Topic
20.10.14	Rodney Lewington	<i>Brachyglottis kirkii</i> var. <i>kirkii</i>
17.11.14	Eleanor Burton	<i>Celmisia</i> spp., e.g., <i>C. "Mangaweka"</i> .
15.6.15	Carlos Lehnebach	<i>Corybas cryptanthus</i> – ghost orchid, hidden orchid.

Annual Report from the Treasurer

Wellington Botanical Society again records a small surplus in the year ended 30 June 2015.

The accounts for the financial year ended 30 June 2015 show a small surplus of \$535 on the normal operations of the Society recorded in the General Account.

Operating expenses have been lower than in the previous year—\$2,440 for printing, postage, speakers' and sundry expenses, compared with \$3,362 in the year to June 2014.

On the income side, subscriptions received have remained relatively unchanged. Interest received for the General and Life Accounts showed a decrease from \$3,275 to \$2,080. Interest received in any financial year has been dependent on the maturity date of term deposits, and interest rates on offer. The decrease above reflects receipt in the previous financial year of a couple of two-year term deposits reaching maturity. Interest income is now compounded and reinvested monthly or quarterly in the main, and annual recorded interest income fluctuations will in future largely reflect changes in interest rates over the financial year. Currently we have an average interest return of 4.6 % on invested funds, but this is expected to fall over the course of 2015-2016.

The Society has maintained grants at a similar level to previous years. The Arnold and Ruth Dench NZ Botanical Award of \$1,000 was again awarded, and \$2,600 was awarded from the Jubilee Award Fund. \$1700 was granted via Student Field Grants, and \$150 prize money went on behalf of the Society to a deserving student at the NIWA Science Fair.

Donations to the Jubilee Award Fund were again much appreciated, the total \$1085 down from \$1910 previously. Our membership currently stands at 241.

The Wellington Botanical Society proposes to keep subscriptions at the same level as previous years. Particular thanks are again extended to Rodney Lewington for assistance with the accounts, and other financial advice given to the Society during the course of the 2014-2015 year.

Subscriptions for the year ended 30 June 2016

Subscriptions for the year ending 30 June 2016 are now due, and receipt will be appreciated. A yellow invoice is attached to the print newsletter, and will be posted to those who receive pdf copy.

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

(rebate of \$5 if paid by 30 November 2015—unless you choose to forego)

Lea Robertson, Hon Treasurer

Annual income & expenditure statement

Wellington Botanical Society Inc.
Income and Expenditure for the Year ended 30 June 2015

General Account				
2014	Expenditure	2015	2014	Income
	1,856 Printing and Stationery	943	3,430 Ordinary subscription	3,611
	546 Post and telephone	378	945 Country subscription	1,140
	205 Web site costs	205	10 Student subscription	30
	655 Meeting and Speakers' expenses	742	1,334 Group subscription	1,014
	100 Sundry expenses	173		
	190 Subscriptions to other organisations	190	5,719 Total Subscriptions	5,795
	0 Members photo Competition Prize	0	3,275 Interest on investment	2,080
	0 Depreciation on equip.	0		
	960 Transfer to Student Award Fund	960		
	4,000 Transfer to Bulletin Account	3,750		
	0 Purchase costs Tony Druce Trip Book	0		
	482 Surplus on General Account for the year	535		
	<u>8,994</u>	<u>7,875</u>		<u>7,875</u>

Jubilee Award Fund				
2014	Expenditure	2015	2014	Income
	150 Science Fair Award	150	62,862 Opening Balance	66,840
			1,910 Donations	1,085
	2,600 Jubilee Award	2,600	123 Proceeds of book sales	134
			80 Plant sales	43
			21 Card sales (net of cost)	23
	66,840 Closing Balance	68,445	4,594 Interest on Investment	3,070
	<u>69,590</u>	<u>71,195</u>		<u>71,195</u>

Tom Moss Student Award in Bryology				
2014	Expenditure	2015	2014	Income
	0 Student Award	0	8,617 Opening Balance	9,271
	9,271 Closing Balance	9,697	25 Donations	0
	<u>9,271</u>	<u>9,697</u>	630 Interest on Investment	426
				<u>9,697</u>

Arnold and Ruth Dench New Zealand Botanical Award				
2014	Expenditure	2015	2014	Income
	0 Award	1,000	0 Opening Balance	0
	0 Closing Balance	0	0 Donations	1,000
	<u>0</u>	<u>1,000</u>	0	<u>1,000</u>

John Child Workshop Contingency Fund				
2014	Expenditure	2015	2014	Income
	4,612 Closing Balance	4,823	4,298 Opening balance	4,612
	<u>4,612</u>	<u>4,823</u>	314 Interest on Investment	212
				<u>4,823</u>

Student Field Grant				
2014	Expenditure	2015	2014	Income
	1,800 Grants to Students	1,700	8,454 Opening Balance	8,232
	8,232 Closing Balance	7,870	618 Interest on Investment	378
	<u>10,032</u>	<u>9,570</u>	960 Transfer from General Account	960
				<u>9,570</u>

Provision for Bulletin				
2014	Expenditure	2015	2014	Income
	0 Printing Bulletin	4,869	20 Opening Balance	4,025
	0 Distribution costs	367	0 Sale of bulletins	90
	4,025 Closing Balance	2,829	4,000 Transfer from General Account	3,750
	<u>4,025</u>	<u>7,865</u>	5 Donations	0
				<u>7,865</u>

Balance Sheet as at 30 June 2015				
2014	Liabilities	2015	2014	Assets
	2,010 Life Membership Fund	2,010	1,810 BNZ Current Account	1,146
			plus deposits not credited at year end	
	66,840 Jubilee Award Fund	68,445	less Unpresented cheques	
	9,271 Tom Moss Student Award in Bryology	9,697	10 Cash held	10
	8,232 Student Field Grant Fund	7,870	5,245 BNZ Business on call Account	1,388
	4,612 John Child Workshop Contingency Fund	4,823	6,861 Bank Funds on current account	2,544
	0 Arnold and Ruth Dench NZ Botanical Award	0		
	4,025 Provision for Bulletins	2,629	20 Fax Machines less depreciation	20
			50 Display unit less depreciation	50
			30 Projector	30
			16 Stock of Bulletins	16
			109 Stock of Tony Druce Trip Books	79
			24 Camping Equipment	24
			0 Stock of postage paid envelopes	1,065
			63 Stocks of cards	29
			0 Stock of stamps	325
	43,313 Accumulated fund as at 30 June 2014		Investment Pool	
	Plus surplus for the year	535	91,769 BNZ Term Deposits	93,952
	Accumulated fund as at 30 June 2015	43,847	39,360 Westpac Term Deposits	41,197
				<u>135,149</u>
				<u>138,302</u>
		<u>139,321</u>		<u>139,321</u>

Note that the Society has a No 2 Current Account used for handling monies for field trips. As at 01 July 2015, the 02 account had a credit of \$595.

This account is not included above, and is not subject to audit.

I have examined the accounting records of the Wellington Botanical Society Inc, and have received all the explanations requested.

I believe the accounts and balance sheet to be a true and fair record of the Society's operation and its financial position at the close of the financial year.

Auditor:

Date:

R. E. Shier BCA CA ACIS
3 August 2015

Loder Cup winners

We congratulate Neill and Barbara Simpson, joint winners of the Loder Cup, NZ's most prestigious and oldest conservation award. The award was announced by Hon. Maggie Barry, Minister of Conservation, at a ceremony in their home town, Queenstown, in September. They will receive the cup in Wellington in June 2016. The cup is awarded annually to a person or group for their outstanding conservation work.

BotSoc since 1967, Neill's and Barbara's work includes maintaining Kelvin Peninsula's track and reserves network, planting native plants along road reserves, tracks, and on Pig and Pigeon islands in Lake Wakatipu, eradicating wilding pines, and establishing a native plant nursery for and with the support of the community.

They have always been willing to pass on their knowledge of NZ's native flora and fauna to BotSoc, and in recent decades to conservation volunteers. Barbara's work with school children in Queenstown has been outstanding. A well deserved recognition of a life time's dedication.

Reference

Mountain Scene, 17 September 2015

Lea Robertson and Rodney Lewington

Baring Head

The Friends of Baring Head and Greater Wellington have discussed the 2015/16 work programme on the Biodiversity Action Plan. Much was achieved last year, so it makes good sense to build on that foundation.

The new fence will be completed with the installation of three cattle stops; thus excluding stock from the valley escarpment, and most of the river flats. This will enable us to spray Cape pondweed in the oxbows, and control grass between two scree areas on the escarpment, which may help to reduce mice numbers by reducing their most

favoured habitat. Mice, along with hedgehogs, rats, cats and mustelids, are predators of lizard species. This year we will be spraying to release plants planted this year, and planting the margins of the oxbows.

Gorse, boxthorn and lupins behind the banded dotterel nesting area were sprayed last year. This will be repeated this year as increased light levels have caused more germination of lupins. Council "minder", Robyn Smith, is contemplating manual weeding on some parts of the foreshore to protect the threatened cushion fields from drifting weed-spray. She is also investigating the feasibility of stock-proof and rabbit-proof fences to keep animals off these sensitive and precious areas. Volunteers organised by the Friends will tackle horned poppy infestations along the south beach, now that Fitzroy Bay beaches have essentially been cleared.

To control mammalian pests, a one-hundred-strong network of bait stations (in fenced-off areas), or Timms traps (in grazed areas), will be installed over the whole property for rodent and possum control. More intensive cat and rodent trap-lines will be laid on parts of the river escarpment to protect lizards from cats and rodents. We await the results of an intensive trial of self-setting traps on Whitiriria Park's escarpment to determine if these traps will lower mice numbers on Baring Head.

So, it will be another busy and productive year. Unfortunately, it won't be overseen by Robyn Smith who has masterminded the restoration strategy, and driven the programme. Our loss will be the QEII National Trust's gain. However, Robyn enjoys Baring Head so much that she's offered to act as the Friends' unofficial ecological adviser. We really look forward to continuing what has been a perfect relationship.

Colin Ryder

Treasurer, Friends of Baring Head

Erratum

On page 14 of the May newsletter, Eleanor Burton's drawing was incorrectly captioned *Notothlaspi rosulatum*. The drawing was of *Notothlaspi australe*. My apologies.

Editor

BotSoc Award—NIWA Wellington Science and Technology Fair 2015

This year's Wellington Botanical Society prize of \$150 for the best entry concerning native plants was awarded to Olivia Healey from Upper Hutt College. Her project, "How ecosystems affect native plants", compared two plots of natives planted one year apart in Trentham Memorial Park.

Olivia measured mānuka, coprosma, hebe and kōwhai planted in two almost adjacent plots in 2007 and 2008. The comparative heights of the plants supported her hypothesis that soil moisture and acidity, and shelter from wind and frost, had influenced the growth rates of these native plants.

Olivia had been involved in plantings in one of the plots. In forming her hypothesis, she had obtained information from locals with a knowledge of the plantings and of the park. Her presentation showed a good appreciation of scientific method, and her conclusions allowed for the variability of the measurements that are inevitable in such a study.

Rodney Lewington and Chris Moore, judges

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New Zealand Government

Department of
Conservation
Te Papa Atawhai

War on weeds



Weed infestations in a number of covenants and other natural places can begin to be tackled, thanks to a successful joint-funding bid by QEII National Trust and Weedbusters NZ.

DOC's Community Conservation Partnership Fund (CCPF) has granted \$500,000 over three years to a joint programme run by Weedbusters NZ and the QEII National Trust. The grant will be used in priority regions to fund voluntary weed-busting efforts by community groups and covenantors, with regional and local council involvement.

National Trust Chair, James Guild, says weeds have impacted heavily on the health of natural habitats and species, and are ruining the appearance of our rural and natural landscapes. 'National Trust covenantors have worked tirelessly, and invested heavily, over years to defend their covenants against weed invasions, but in many cases the problems have become overwhelming. 'Regional weed infestations of plants such as old man's beard have simply become too rife and too expensive for people to deal with on their own,' he says.

National Trust covenantors have established just over 4000 covenants protecting about 180,000 ha of land. They voluntarily protect significant natural and cultural features across NZ's modified landscapes where those features are most at risk and least protected.

Guild says the \$500,000 will be used to support the weed-busting efforts of community groups and landowners around the country. The results of this three-year weed-busting purge will provide essential guidance on how a wider-scale programme might be developed in future. 'We are not funded to help covenantors with weed and pest control, so the CCPF support is very welcome. 'It means they can be supported in the war against weeds through a collaborative programme with landowners, councils, and the community in general,' he says.

It is also good news for community Weedbusters groups who are tackling various weed issues in their local areas. 'Many of these groups are small, but dedicated,

and this fund will help them access the essential tools and resources they need to continue their efforts,' says national Weedbusters coordinator, Carolyn Lewis.

As a first step to becoming part of this national weed-busting effort, local groups doing voluntary weed control are urged to register at www.weedbusters.org.nz.

More information

Weedbusters: www.weedbusters.co.nz

Queen Elizabeth II National Trust: www.openspace.org.nz

– facebook.com/QEIINationalTrust

Anne McLean

Senior Communications Advisor

Queen Elizabeth II National Trust

DD: 04 474 1689

Percy Scenic Reserve News

We have done a major clean-up of the southern lawn area, removing many self-sown woody weeds, some of them quite large. We have planted out parts of this garden, and will fill in gaps next winter.

We have been planting throughout the reserve, as part of our winter planting, filling in gaps and bare areas. We planted seven *Hebe* aff. *bishopiana* in the southern lawn area, taken as cuttings last year from an existing specimen, and a *Cordyline indivisa* / mountain cabbage tree in the fernery. It needed to be planted out and we felt the fernery to be the best area for it.

Coming in to spring, we have started taking cuttings and sowing seed to add to the alpine collection. This is a bid to increase the numbers of individual plants of each species, so ideally we have two or three back-up plants for each species. At present we have only one specimen of some plants, so if we lose that we will have lost that particular species from the collection.

Cliff Keilty

Why value NZ's indigenous biodiversity?

Since my talk at the Otari-Wilton's Bush Open Day on 26 September, I've written a blog post asking why we might value NZ's indigenous biodiversity.

<http://blog.tepapa.govt.nz/2015/10/01/do-we-need-new-zealands-indigenous-species/>

I would welcome your thoughts, especially as comments to the blog! I'd also be delighted if you shared the post with others.

Dr. Leon Perrie

Curator of Botany

Museum of New Zealand Te Papa Tongarewa

Taputeranga Marine Reserve

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 Department of Conservation
Te Papa Atawhai

New Zealand Government

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.

Uncinia is now Carex

The Global *Carex* Group has recently published their findings of a worldwide review of the tribe Cariceae in Family Cyperaceae (Global *Carex* Group 2015). They argue that the genus *Carex* should be expanded to include the other genera in the tribe, including *Uncinia*, because these genera are firmly nested phylogenetically within *Carex*. Landcare Research botanist Kerry Ford contributed new combinations in *Carex* for the New Zealand species of

Uncinia (Table 1). New specific epithets were needed for many of the species because their old names were already in use in *Carex*.

Reference

Global *Carex* Group. 2015: Making *Carex* monophyletic (Cyperaceae, tribe Cariceae): a new broader circumscription. *Botanical Journal of the Linnean Society* 179 (1): 1–42.

Source: *Trilepidea* 141, August 2015

Table 1. Name changes resulting from the merger of *Uncinia* into *Carex*.

Old name in <i>Uncinia</i>	New name in <i>Carex</i>
<i>Uncinia affinis</i> (C.B.Clarke) Hamlin	<i>Carex potens</i> K.A.Ford
<i>Uncinia angustifolia</i> Hamlin	<i>Carex minor</i> (Kük.) K.A.Ford
<i>Uncinia astonii</i> Hamlin	<i>Carex hamlinii</i> K.A.Ford
<i>Uncinia auceps</i> de Lange et Heenan	<i>Carex auceps</i> (de Lange & Heenan) K.A.Ford
<i>Uncinia aucklandica</i> Hamlin	<i>Carex aucklandica</i> (Hamlin) K.A.Ford
<i>Uncinia banksii</i> Boott	<i>Carex banksiana</i> K.A.Ford
<i>Uncinia caespitosa</i> Boott	<i>Carex astricta</i> K.A.Ford
<i>Uncinia clavata</i> (Kük.) Hamlin	<i>Carex corynoidea</i> K.A.Ford
<i>Uncinia distans</i> Colenso ex Boott	<i>Carex subviridis</i> K.A.Ford
<i>Uncinia divaricata</i> Boott	<i>Carex edura</i> K.A.Ford
<i>Uncinia drucei</i> Hamlin	<i>Carex drucei</i> (Hamlin) K.A.Ford
<i>Uncinia egmontiana</i> Hamlin	<i>Carex egmontiana</i> (Hamlin) K.A.Ford
<i>Uncinia elegans</i> (Kük.) Hamlin	<i>Carex subtilis</i> K.A.Ford
<i>Uncinia ferruginea</i> Boott	<i>Carex megalepis</i> K.A.Ford
<i>Uncinia filiformis</i> Boott	<i>Carex lectissima</i> K.A.Ford
<i>Uncinia fuscovaginata</i> Kük.	<i>Carex penalpina</i> K.A.Ford
<i>Uncinia gracilentia</i> Hamlin	<i>Carex imbecilla</i> K.A.Ford
<i>Uncinia hookeri</i> Boott	<i>Carex crispa</i> K.A.Ford
<i>Uncinia involuta</i> Hamlin	<i>Carex crispa</i> K.A.Ford
<i>Uncinia laxiflora</i> Petrie	<i>Carex erythrovaginata</i> K.A.Ford
<i>Uncinia leptostachya</i> Raoul	<i>Carex cyanea</i> K.A.Ford
<i>Uncinia longifructus</i> (Kük.) Petrie	<i>Carex longifructus</i> (Kük.) K.A.Ford
<i>Uncinia nervosa</i> Boott	<i>Carex cheesemanniana</i> (Boeckeler) K.A.Ford
<i>Uncinia obtusifolia</i> Heenan	<i>Carex obtusifolia</i> (Heenan) K.A.Ford
<i>Uncinia perplexa</i> Heenan et de Lange	<i>Carex perplexa</i> (Heenan & de Lange) K.A.Ford
<i>Uncinia purpurata</i> Petrie	<i>Carex purpurata</i> (Petrie) K.A.Ford
<i>Uncinia rubra</i> Boott	<i>Carex punicea</i> K.A.Ford
<i>Uncinia rupestris</i> Raoul	<i>Carex horizontalis</i> (Colenso) K.A.Ford
<i>Uncinia scabra</i> Boott	<i>Carex healyi</i> K.A.Ford
<i>Uncinia silvestris</i> Hamlin	<i>Carex silvestris</i> (Hamlin) K.A.Ford
<i>Uncinia sinclairii</i> Boott	<i>Carex parvispica</i> K.A.Ford
<i>Uncinia strictissima</i> (Kük.) Petrie	<i>Carex strictissima</i> (Kük.) K.A.Ford
<i>Uncinia uncinata</i> (L.f.) Kük.	<i>Carex uncinata</i> L.f.
<i>Uncinia zotovii</i> Hamlin	<i>Carex zotovii</i> (Hamlin) K.A.Ford

Biodiversity restoration efforts on the Kāpiti Coast

This article summarises sizeable projects, initiated and supported by volunteers, on public land on the Kāpiti Coast. Much additional restoration is occurring on private land.

In the late 1980s, June Rowland and a small band of Forest & Bird volunteers began plantings in the dune-swamp kahikatea forest remnant in Queen Elizabeth Park. A mainstream movement developed from this.

Along the foothills, remnants of original forest cover form a corridor facilitating the movement of birds from the Tararua Range onto the coastal plain. In 1996, the Friends of Kaitawa Reserve began restoring the 7-ha Kaitawa Reserve in Paraparaumu, to increase biodiversity

in a residential setting, and create a place for families, unable to afford a trip to Kāpiti Island, to visit and enjoy the birdlife. The result of the work is that bellbirds, kākārīki, kererū, kārearea, kōtare, tūi, etc., visit regularly. Emergent species including northern rātā, rimu, mataī, miro, tōtara, swamp maire, etc., are re-establishing among the primary colonisers. Plantings have been completed, so the priority is to attempt to eradicate the remaining weeds and animal pests. The reserve is dissected by Wharemauku Stream, and after Kāpiti Coast District Council (KCDC) removed two in-stream barriers, schools of whitebait species, including giant, banded and short-jawed kōkopu, plus inanga, inhabit the pools each summer.

After a successful working relationship was established between KCDC and the Kaitawa volunteers, the Friends of Greendale Reserve formed and began a riparian project along Muaupoko Stream, Otaihangā, to revegetate the 3.5-ha reserve, created as a result of subdivision. The plantings are now complete, providing additional cover over the stream. The project helps to provide a corridor for birds moving from DOC's 174-ha Paraparaumu Scenic Reserve, east of SH1, to the coastal plain. Weed and pest control is being done. One of the most impressive groves of mature kahikatea in the district is located there.

During public consultation in 1995, to prepare for a flood-plain management plan for the lower reaches of the Waikanae River, Forest & Bird successfully advocated for the inclusion of ecological and recreational corridors along the river margins. The aim was to complete an ecological corridor linking Kāpiti Island, Kāpiti Marine Reserve and Waikanae Estuary Scientific Reserve, with the Tararua. In 1998, plantings and weed control began on the south bank, upstream from Otaihangā Domain. The project benefited from the formation of the Friends of Waikanae Estuary, and the Friends of the Waikanae River, plus support from KCDC, Greater Wellington Regional Council (GWRC) and DOC. More recently, the chance for the development of wider linkages on the south bank arose, after KCDC purchased 60 ha of adjoining farm land, Otaraua Park, for development as a sporting and recreational complex. The project also benefited when KCDC entered into a partnership arrangement under Transpower's Greenline environmental programme, enabling 15,000 additional plants to be planted.

As aging impacted on the volunteers, concern arose over whether the improvements achieved, in the above three projects, could be maintained. So Forest & Bird members initiated the formation of the Kāpiti Ecological Restoration Maintenance Trust. Funded and supported by KCDC, this has been of great benefit, enabling the engagement of a contractor with the necessary skills and qualifications, to work with the volunteers. KCDC has demonstrated additional support by employing two staff members to assist the twenty-one volunteer groups recognised by the Council.

At the southern end of the district, the former Landcorp farm, Whareroa, is now controlled by DOC. In 2006, the Guardians of Whareroa group formed to develop the block under an integrated conservation strategy. The plan involves restoring bush remnants, developing some 60 ha as a recreation reserve for walking, horse riding, mountain biking and picnicking activities, and leasing the remaining 180 ha for farming.

To the west of Whareroa Farm and SH1, lies the 650-ha Queen Elizabeth Park, controlled by DOC, but managed by GWRC as an extremely popular regional park, attracting more than 400,000 visitors annually. Some 360 ha is leased for farming, with the public having access to the remaining area, catering for a wide range of recreational pursuits. The Friends of QE Park Trust, supported by GWRC, developed and are implementing a plan which includes restoration plantings, plus additional recreational opportunities. Evidence of the positive relationship that exists between the Friends, GWRC, and local residents, can be judged from the following example. When GWRC provided 10,000

plants to celebrate the tenth anniversary of the group's founding, public support was such that all plants were planted in under three hours.

Nga Uruora, a well-established group based in Paekākāriki, aims to create a continuous ribbon of bird-safe native forest from Porirua to Waikanae. To date, most effort, including pest control, has been concentrated on the steep and difficult railway reserve across the coastal escarpment, east of Centennial Highway, between Paekākāriki and Pukerua Bay.

The Friends of QE Park have recently been awarded a major grant from MfE's Biodiversity Fund for a biodiversity project in the park, and pest-control on areas worked on by the Guardians of Whareroa and Nga Uruora. This project may feature in a subsequent article.

North of the Waikanae River is KCDC's Pharazyn Reserve Project. Formerly a sewage treatment facility, the ponds are being rehabilitated as a recreation reserve and waterfowl habitat. The reserve includes dune areas on the seaward side of Rutherford Drive. KCDC has installed a bird-hide, and is investing in further development of this reserve. The Waimeha Lagoon Restoration Group is active in restoring the lagoon, surrounding wetlands and dunes.

In Otaki, The Friends of Otaki River was formed to represent the community in the management and development of the Otaki River. Supported by GWRC, large-scale riparian plantings have been made, and continue, on the flood plains. In the lower reaches, the Waitohu Stream Care group continues to work on improving the margins of the stream.

KCDC and GWRC have engaged specialist contractors to control marram grass and other invasive weeds on the coastal dunes between Paekākāriki and Otaki. Encouraged by KCDC, six community groups and private landowners are focussing on dune restoration, with impressive results being obtained on the fore-dunes.

Both councils have increased their pest-animal control programmes in recent years. GWRC is boosting possum control through its first district-wide scheme encompassing both public and private land. KCDC is likewise establishing stoat-trap lines through its significant bush reserves, and subsidising pest control in ecological sites on private land.

Separately, contract plantings as part of the Kāpiti Expressway project, will see the planting of over one million eco-sourced plants, and the creation of 11 ha of new wetlands. Ngā Manu Nature Reserve, a private sanctuary, has a modern educational facility and is expanding its educational role.

The amount of volunteer support is evidence of an awareness of the impacting ecological crisis, coupled with a willingness to do something about it. The degree of cohesion between councils and volunteers is pleasing, and something that has not existed previously. Many people in this district support the vision of living more harmoniously with Nature, so it has been most satisfying to be included among them.

John McLachlan

Dr Grace Suckling 1922–2015

Dr Grace Suckling, a life member of Wellington Botanical Society, died at the age of 93 on 20 July 2015.

Born in Dundee, Grace started her working life in Scotland practising in children's dentistry. She spent time in London for further study and practice. It was there that she met her husband, Gavin, and in 1956 they settled in Wellington, and raised five children.



Grace joined WBS in 1968, the same year as she joined the Dental Research Unit in Wellington, and became seriously interested in researching children's dental problems. After retiring, Grace obtained her Doctorate of Dental Science at the age of 72 (the first woman to do so) and continued her promotion of dental health through submissions and advocacy. In 2013 she was made Patron of the D3G group (Australia and NZ Developmental Dental Defects Group), which described her as a research pioneer.

Grace was an active member of BotSoc in the 1970s and early 80s, and was a founding member of the "Sunday Walking Group"—an informal group, mainly members of BotSoc who had attended WEA botany classes. Her last recorded outing with BotSoc appears to be in 2006 when she guided a group of us on a tour of Nga Manu.

When she retired, Grace built a house at Waikanae, and her botanical attention turned to Waikanae lagoon and Ngā Manu Nature Reserve. There she was quickly co-opted as a volunteer guide, and helped advance knowledge of tuatara teeth. Her analytical mind turned to identifying all ferns in the reserve and she produced a booklet on these. She was an active, enthusiastic member of groups in the Waikanae area, and her positive influence and support will be missed by many.

A comment by a visitor to Ngā Manu in 2012 sums up Grace as "a very able-bodied and able-minded 90-year old who shared her knowledge of ferns" and, one could add, all things dental, botanical and ornithological.

Members may find a recent interview with Grace on the dental side of her life of interest at: <https://www.youtube.com/watch?v=IGM0T35hqHc>

Lea Robertson and Rodney Lewington

Distorted growth in cabbage trees

I saw this cabbage tree at Waikanae early this year. The affected shoot, c. 2 m high, was one of four or five new shoots from an old, dead, cabbage tree - none of the other shoots were affected. I thought it might be the result of insect damage, so I sent the details to Landcare Research. They replied saying:

Thanks for sending the photo. Quite different from the bug pictures I usually see. I've shown it to several colleagues, including a botanist and a fungal



expert. Several of us have seen something similar, but no-one had a ready explanation. Possibly it is a form of epinasty. That is, distortion caused by differential growth rates of cells in upper and undersurfaces of leaves, which can have a number of causes, including root flooding and boron deficiency.

I have since heard from someone who works in the plant restoration business in the Kāpiti area that they had seen another specimen some time ago.

Allan Sheppard

Kāpiti Coast biodiversity project

This project was launched by Environment Minister Nick Smith on 24 June at Queen Elizabeth Park. It is the brainchild of John Lancashire, Whareroa Guardians trustee, and previous Chair of the Friends of QE Park. A grant of nearly \$300,000 over three years will fund various biodiversity "strands", including dune and stream enhancement, studies of wētā and lizards, bird recovery, and a significant pest management strategy. There will be much practical work for volunteers working with experts in each field. Before and after status will be monitored. The aim is to study and improve practical ways to enhance biodiversity from Pukerua Bay to Raumati South. The three groups involved are Friends of QE Park, Nga Uruora and Whareroa Guardians. Whareroa Farm is at the core, being the connection between QE Park and Akatarawa Forest, having significant native forest remnants, and the upper catchment of Whareroa Stream. Exciting times are ahead.

Source: Whareroa Guardians Community Trust update, 3 July 15

Common Ground: who's who in New Zealand botanical names

Val Smith

A4 format, 304 pages, soft cover. Published in a limited edition by Wordsmith, New Plymouth, assisted by Wellington Botanical Society's Jubilee Fund and the George Mason Charitable Trust ISBN 978-0-473-30847-6

This book brings together the stories of 250 people commemorated in New Zealand botanical names, not only of flowering plants, but also ferns, seaweeds, mosses, lichens and fungi. Arranged chronologically from the Greek philosopher Aristotle, 384 BC–322 BC, (*Aristotelia serrata* – makomako or wineberry) to contemporary New Zealand botanists, *Common Ground* includes early European physicians and herbalists, later explorers and scientists, New Zealand pioneer settlers and visitors, and locally born and educated naturalists. Each biographical entry is on a separate page, accompanied by a relevant colour image and plant information. A social and botanical history with an amazing number of connections is revealed.

Price: \$30.00 (plus \$5.00 postage within NZ)

Orders and enquiries to: Val Smith, valdsmit@xtra.co.nz ph. 06 758 3521

80 Mill Rd, Lower Vogeltown, New Plymouth 4310



Swamp maire at Lake Papaitonga

In the May newsletter, I compared the species BotSoc saw at Lake Papaitonga at Easter 2015, with those reported by Wassilieff and Clark in 1984. This produced a quick response from Colin Ogle. He recalls showing swamp maire to BotSoc at Lake Papaitonga on 7.11.1998. He remembers getting down on the ground beside the boardwalk and pointing out that the aerial roots of swamp maire are a good way of recognising the tree if the foliage is out of reach.

Maggy Wassilieff explained that the 1984 species list was a by-product of a Lands and Survey research contract to map and describe the diverse ecosystems at Lake Papaitonga. The methodology specified a walk of the perimeter, and to the highest point. Time constraints were tight, so producing a complete vascular species list was not on the agenda.

The species list for Papaitonga and environs, published in 1985 by F.C. Duguid, was compiled from 1940 onwards, and also records frequencies. It describes swamp maire as 'abundant' (A). See BotSoc Bulletin No. 42. I'll be going back for a closer look to see if I can find it.



The distinctive aerial roots of swamp maire. Photo: Colin Ogle.

Bev Abbott

TRIP REPORTS

6 June 2015: Kohekohe Loop Track, Paekākāriki

Our party of fifteen set off from Paekākāriki in excellent weather. We walked the first 300 m of the new Te Araroa Escarpment Track, looking at Nga Uruora's most recent plantings, and a huge selection of weeds. Nga Uruora's weed control focuses on eliminating the three ivies: Cape, German and English ivy, and *Tradescantia*. We are eradicating Cape ivy from the northern part of the escarpment. The German and English species are much more difficult, but Greater Wellington Regional Council is helping us. Just beyond the picnic table we turned off up the Kohekohe Loop Track, which climbs the escarpment almost reaching Hill Road. It takes about 50 minutes to walk round if you are not botanising. The track was built by Nga Uruora Kāpiti Project (NUKP) volunteers with a grant from the Walkways Commission. The first part of the track passes through forest planted by NUKP in 2006-08. Seedlings were planted in scree, and the trees are already c. 3 m high. Some were planted in stones without any soil, but have done very well. All species were sourced locally, and grown in our two nurseries (Pukerua Bay and Paekākāriki schools). Ngaio is the most successful, other species being karamu, māhoe, and tī kōūka. These

were the pioneer species. When the plants reached about 2 m, we planted kohekohe, and occasionally tōtara and milk trees.

Further up the Loop Track we entered kohekohe forest which is partly secondary, partly original native forest. Possums have been trapped here since 2000, so there have been fourteen years for the kohekohe to recover – they are now flowering profusely. The forest is dominated by kohekohe. Other species are māhoe, tawa, ngaio, hīnau, tītoki, taupata, karamu, akiraho, with a sprinkling of nikau, tī kōūka and karaka. The forest floor was covered in seedlings, including kohekohe, tītoki and māhoe.

On the way up we passed an original (?) kōwhai with numerous seedlings. Near the top we inspected an old kohekohe with a rātā vine about 8 cm dbh climbing it, and a large puka (*Griselinia lucida*) about 12 cm dbh. Both had very good examples of girdling roots, and the puka had distinctive grooves in its bark. We couldn't see any puka foliage, so relied on the bark for id. The bark on the rātā vine indicated *M fulgens* or *M perforata*.

Some excitement was generated by a suspected *Streblus banksii* leaf showing the expected shape, rounded

teeth, thickness and colour. It came from a seedling in a shady part of the forest. Close inspection of the seedling was not conclusive. We found that māhoe seedlings grown in the nursery have very similar leaves, with rounded teeth. Māhoe / *Melicytus ramiflorus* leaves are very variable in shape, as well as teeth. I concluded that our seedling was māhoe.

Next door to this forest, just above Hill Road, is a huge area recently retired from sheep farming. This was Perkins Farm which stretches from the Hill Road Lookout to the top of Transmission Gully. Nga Uruora has an agreement with the NZ Transport Agency to do pest control, weed control, and perhaps some planting on steep parts of the farm. The long-term plan is to restore the farm to native bush.

At the highest point on the track we had lunch and enjoyed wonderful views of Kāpiti Island.

Participants: Bev Abbott, Eleanor Burton, Paul Callister (co-leader), Barbara Clark, Lorraine Cook, Michelle Dickson, Ken Fraser (leader / scribe), Chris Hopkins, Chris Horne, Winifred Maindonald, Barbara Mitcalfe, Chris Moore, Jan Nisbet, Leon Perrie, Roy Slack.

13 June 2015: Te Mārua Bush workbee

Despite a frosty start on our new, sunny, sheltered site, ten BotSoc and four Forest & Bird members soon removed outer layers of cold-weather clothing.

The newly-fenced planting is a triangle of uneven, sloping ground bordered by SH2, the Pony Club paddock, and immediately to the south, Te Mārua Bush itself. A few years ago the Kaitoke Regional Park ranger had planted along the highway boundary, some 1.5 to 3 m-high mānuka and tōtara, both non-palatable and secured by a good fence, so we were able to plant inside the new part, trees that would otherwise have been eaten by the horses. However, to be on the safe side, we did plant a line of mānuka and tōtara just inside the fence.

A total of eighty-nine plants

propagated by F&B were put in, and the existing plants weeded. All plants were staked and 'hare nets' were secured on juvenile plants palatable to hares, rabbits and possums. Each plant also received a small amount of fertiliser as the area is stony with poor soil.

Earlier in the week, F&B members had visited the site and removed lupin, broom, blackberry, a large old climbing rose, and lots of rubbish. We were pleased to find about ten young mānuka (10–40 cm high) that had self-seeded in a spot where there had been little grass growth to smother them. These were marked to locate them for future weeding.

After such a long, hot, dry summer Te Mārua Bush is still looking good. There has been a lot of healthy, undamaged growth on

established trees, owing largely to an absence of cicadas again this year, as in 2013. Many of the huge number of emerging seedlings seen in spring have died, but a reasonable number have survived. There was little seed seen on the mature canopy and emergent trees, and some seed that did set, fell off before ripening, owing to the long dry period.

Participants: Co-leaders/scribes: Sue Millar and Glennis Sheppard. Bruce Austin, Trudi Bruhlmann, Gavin Dench, Michele Dickson, Chris Horne, Ann Mitcalfe, Barbara Mitcalfe, Allan Sheppard, Graeme Sheppard, Sunita Singh, Roy Slack.

We hope to see a good turnout of BotSoccers at the next Te Mārua Bush workbee on 31 October. See programme for details.

4 July 2015: Porirua Scenic Reserve—Rangituhi Crescent entrance

We found our 2014 trip to Porirua Scenic Reserve so interesting that we went back. On 2 August 2014 we had entered it near Camp Elsdon; this year we entered it from Rangituhi Crescent. We walked up the track until it peaked, and then retraced our steps.

The recent flooding had damaged the small stream and the grassy clearing at the track's entrance. The surrounding plants looked to have stood up well, at least those which had not had their substrate ripped away.

More large podocarps were evident along this track, compared with the track from Camp Elsdon. Matai was the most common, with some kahikatea, mostly in the valley, and an occasional miro and tōtara. Many of these trees were remarkably squat—short for their girth—reflecting the low canopy, and perhaps a windiness that makes it difficult for emergents. Kohekohe made up most of the canopy, and it was just past its flowering peak.

At a clearing a little way up the track, we looked out at the canopy on the opposite hillside and practised our long-distance identifications. We seemed to be quite good (or otherwise all wrong).

Among the highlights we saw from the track were large-leaved milk tree / *Streblus banksii* (Fig. 1). These

were not uncommon, once we got our eye in for them. We also found a cluster of very large lancewoods / *Pseudopanax crassifolius* near the top of the track (Fig. 2). Nikau were abundant at higher altitudes. Weeds were generally inconspicuous. With the reserve previously botanised thoroughly by Pat Enright and colleagues, there were few additions to the list: *Pseudopanax crassifolius* × *P. lessonii*, Japanese hill cherry / *Prunus serrulata* (?), Cape gooseberry / *Physalis peruviana*, Mexican daisy / *Erigeron karvinskianus*, velvety nightshade / *Solanum chenopodioides*, and hawksbeard / *Crepis capillaris*.



Figure 1. Large-leaved milk tree, *Streblus banksii*.

Fern focus for the day was *Adiantum*. The reserve is home to four indigenous species; few NZ sites outside the northern North Island could match that. We encountered both *A. fulvum* and *A. viridescens*; the latter seemed to be more common.



Figure 2. Trunk of large lancewood, *Pseudopanax crassifolius*, some 35–40 cm in diameter. Dawson & Lucas (2011, *New Zealand's Native Trees*) indicate it can reach 50 cm!

The hairs on the axes (rachis and costae) distinguish both from the glabrous, and usually more abundant, *A. cunninghamii*. *Adiantum fulvum* has hairs on the underside of the

frond segments, while *A. viridescens* does not. I could see the hairs on the plants I claimed to be *A. fulvum*, but no-one else could.

Photos of some of what we saw are available on NatureWatch at: <http://>

naturewatch.org.nz/observations?utf8=%E2%9C%93&q=WellingtonBotanicalSociety+July2015

Participants: Bev Abbott, Eleanor Burton, Gavin Dench, Richard Grasse, Chris Hopkins, Chris Horne,

Jane Humble, Barbara Mitcalfe, Chris Moore, Mike Orchard, Phil Parnell, Leon Perrie (co-leader/scribe), Nick Saville, Lara Shepherd (co-leader), Sunita Singh, Roy Slack, Julia White, Kate Zwartz.

1 August 2015: Taparanga Block, Baring Head

On a cool, blustery morning, with showers forecast, twenty-two intrepid BotSoccers met at the Baring Head car-park. Before starting our botanical exploration, Robyn Smith, GWRC's Biodiversity Advisor, explained the GWRC Biodiversity Department's plans for the site, part of the Baring Head Key Native Ecosystem management area. This was the first botanical survey on the property, so a species list will be of value to GWRC, and to the landowners who will receive a copy.

After a health and safety briefing we crossed the bridge and walked along the farm road up the true right of the Wainuiomata River to the East Harbour Regional Park boundary. Once through the gate, our pace slowed as we began listing species. The vegetation at the start, along the track upstream of the boundary, was mainly exotic rough pasture species. On the slope above were native shrubs, gorse and some small native herbs and monocots. Common native species found here were *Carmichaelia australis*, *Coprosma propinqua* subsp. *propinqua*, *Lagenophora* sp, *Clematis forsteri*, *Pyrrosia eleagnifolia* and *Melicytus crassifolius*. East of the farm track, old river and creek channels contain native wetland species, e.g., *Isolepis prolifer*, but they were dominated by the exotic weeds, *Glyceria declinata* / floating sweet grass, and *Aponogeton distachyus* / Cape pondweed, and a small area of *Myriophyllum aquaticum* / parrot's feather.

We came to the first gully and some exciting finds, e.g., several large *Agave americana* / century plant, and a concrete pad nearby, possibly an old homestead, at the entrance to a small gully. A little way up it, a large, old *Myoporum laetum* / ngaio, marked a bend in the gully to the south and back towards the park. Just up the gully we found a mature *Melicope ternata* × *M. simplex*. At this stage excitement levels rose and people started to explore more widely

with the understanding that we all meet for first lunch at 11 a.m. near the large kaihikatea tree in the next gully to the north. Dominant species in the first gully were *Leptospermum scoparium* agg. and *Kunzea robusta*, with an understorey of ferns, rushes and sedges; species such as *Blechnum membranaceum*, *B. chambersii*, *B. minus*, *Polystichum oculatum*, *P. neozelandicum* subsp. *zerophyllum*, *P. vestitum*, *Cyperus ustulatus*, *Juncus* spp., and a good population of rasp fern / *Blechnum parrisiae* (*Doodia australis*).

The farm track then sidled up and over a small spur which formed a raised flat terrace where the track crossed it. The spur was dominated by exotic grasses with a canopy of kānuka and mānuka in places. After looking at the different forms of the kānuka, we discussed if what we were seeing was all *K. robusta*, or was another *Kunzea* was also present. We then descended to the second gully, and the most exciting finds of the day. Robyn was excited to find a wet area (seep) in the bottom of the gully with *Juncus pallidus*, *J. sarophorus* and *Carex secta*. A large, mature, kaihikatea, with numerous epiphytes, guards the valley entrance. However it was the plants in the vicinity that provided a flurry of activity and interest as we spread to the four winds and soon found more of Tane's taonga. The exciting finds before first lunch were a large-leaved milk tree / *Streblus banksii* covered in native lianes, and a small-leaved milk tree / *S. heterophyllum*, also a stand of *Melicope simplex*, *Podocarpus totara*, *Brachyglottis lagopus*, more *Polystichum oculatum*, and *P. neozelandicum* subsp. *zerophyllum*, and more *Blechnum parrisiae*. At 11 a.m. people re-emerged for first lunch to discuss their finds, comment on the amount of the weedy *Selaginella kraussiana*, consider the grazing of wetlands, and decide where to head next.



Streblus banksii—juvenile foliage top left.
Illustration: Eleanor Burton.

After lunch, we agreed to meet near a large *Cordyline australis* further up the gully at 2 p.m. for second lunch. The fitter and keener bods headed up the second gully and onto the ridges either side where they found a remnant of black beech forest, and a suite of species associated with this habitat. The ridges on either side were dominated by a canopy of kānuka and mānuka, with an understorey with *Uncinia*, *Adiantum*, *Asplenium*, *Blechnum* and *Polystichum* species; and the orchids *Acianthus sinclairii* and *Pterostylis alobula*. Above here, gorse was more dominant in the canopy. Those wanting to cover less ground searched up the valley a short distance, and the lower true left side of the gully where the dominant canopy species were *Cyathea*, *Pseudopanax*, *Knightia* and *Melicytus*. The taonga found were lone plants of *Fuchsia perscandens*, *Coprosma rubra* and *Nestegis lanceolata*. There were some obvious animal trails in this area, and a lack of regeneration under the tree ferns. At second lunch in light drizzle, we discussed which species of ferns and *Nestegis* were present.

After lunch some headed back, and others went back down the gully to the edge of the river flats where we found meandering water

channels filled with *Isolepis prolifer* and some *Carex* spp. The sides of the slopes along the river flats above the second gully were almost solid gorse, interspersed with native divaricates. As the rain and wind slowly strengthened, we returned to the car-park. Thank you to all for coming, the great company, and making the day such a success. The area we searched proved to be botanically highly diverse, with the surprises being the old forest remnants and several locally rare species. See you all in March when Robyn will lead a trip to the same property.

Participants: Michael Bartlett, Eleanor Burton, Gavin Dench, Ian & Jill Goodwin, Richard Grasse, Bryan Halliday, Chris Hopkins, Chris Horne, Jane Humble, Pascale Michel, Barbara Mitcalfe, Chris Moore, Syd Moore,



Which *Nestegis* is it?

Mick Parsons, Leon Perrie, Lara Shepherd, Sunita Singh, Robyn Smith

(co-leader), Owen Spearpoint (co-leader/scribe), Julia Stace, Julia White.

5 September 2015: Korohiwa – Kōwhai St tracks, East Harbour Regional Park

In the lee of the Eastbourne hills on a fine day with a cold south-easterly, seeing snow-capped Tapuae o Uenuku to the south, reminded us we could have been in much cooler places. Our aim was to enter the bottom of the relatively new Korohiwa Track, and emerge on Kōwhai Street. In between is a ridge with a remnant of recovering beech forest adjoining the remainder of the Eastbourne hills forest, dropping away to Butterfly Creek. We used a Mitcalfe / Horne list of the nearby Muritai and McKenzie tracks as a guide in attempting to hone in on this area. There were not to be many additions, but it was clear there are differences between the two areas.

Because it was a recently renovated track, there were several recordings of planted origin around the entrance. Two fine *Melicope ternata*, *Sophora tetrapetala*, large ngaio and some *Coprosma propinqua* subsp. *propinqua* guard the track entrance. Disturbed shady banks are covered in weed grasses, mainly *Erharta erecta*. We climbed slowly through recovering native vegetation under a canopy of gorse. Track-side were ferns, including *Polystichum neozelandicum* subsp. *zerophyllum*, *P. oculatum*, *Blechnum procerum* and *B. membranaceum*. Orchids included *Acianthus sinclarii*, *Thelymitria longifolia* and lots of *Pterostylis alobula*. There was wood rush /

Luzula picta and plentiful sundew / *Drosera auriculata*, among the expected *Senecio minimus*, and the ubiquitous exotic, *Senecio glastifolius*.



If left unchecked, *Asparagus scandens* can smother and kill native vegetation. Photo: Jeremy Rolfe.

Of concern was *Asparagus scandens* entangled within the gorse canopy. Because of limited time, we stuck to the track, but there looked to be very interesting and more mature cover off-track, perhaps harbouring a wider range of native species, and not penetrated by the range of exotic flora we were finding on the track. The ridgeline had a canopy of *Fuscospora*

solandri and *F. truncata* with many of the trunks embedded with the roots of *Drymoathus adversus*, and the forest floor smothered with newly emerged *Corybas trilobus*. A large exposed rimu which towered over the recovering forest had clearly survived intense fires of the past as evidenced in the surface gravels. The Kōwhai Street entry to the track is characterised by numerous exotic delights such as an unknown palm, agapanthus and Cape ivy, and further up there are regular planted pōhutukawa, and banks planted with rengarenga lilies, and some exotic *Adiantum raddianum* among the natives *Adiantum cunninghamii* and *Lindsea linearis*. However, despite this, there were many delights track-side in full view, such as bunches of *Pterostylis alobula* and what we thought was *Pterostylis cardiostigma*.

Trip participants: Rhonda Billington, Sam Buckley, Eleanor Burton, Flora Chong, Gavin Dench (co-leader), Michelle Dickson, Chris Hopkins, Rodney Grapes, Richard Grosse, Bryan Halliday, Mick Parsons (co-leader/scribe), Lynne Pomare, Nick Saville, Lara Shepherd, Sunita Singh.

REGISTRATION FORM FOR SUMMER TRIP: WESTERN WAIKATO

17–24 January 2016 (returning on 24th)

Based at Te Kauri Lodge, SH3, Kawhia Rd, Te Awamutu

Accommodation information

Te Kauri lodge has two large bunkrooms (37 bunks each), and a few small rooms (4–6 bunks). Cost \$17 pp/night if we have more than 10 people.

Bedding: Bring own bedding, including pillow, pillowcase and towels.

Camping: Space is limited as the lodge is surrounded by bush. Costs are the same as for indoor accommodation.

Other facilities: There is a separate meeting room with whiteboards.

Meals: We are still trying to establish if a local cook/caterer would be available for some or all of the evening meals. Lunch & breakfast will be organised by BotSoc.

Shops, fuel, etc.: Kawhia township is 20 minutes by car, Otorohanga, 34 minutes, and Pirongia, 30 minutes. The Oparau Road House (petrol & café) is 7 minutes drive.

You can check other lodge details at www.Tekauri.org.nz

Action 1: Registration:

Please post this registration form to Mick Parsons: 32 Fitzroy St, Wadestown, Wellington 6012, or attach it to an e-mail mtparsons@paradise.net.nz. For further details, please contact Mick. Ph: 04 972 1148 or 027 249 9663

Action 2: Deposit:

Please pay a deposit of \$350 per person when you register. This allows us to buy food, and before we leave Te Kauri, pay the accommodation bill. There are two ways to pay your deposit. Either post a cheque with your registration form, or lodge payment in the Society's Account **02 0536 0017812 02** and state your name in the details.

More information will be sent to those who register.

Name:

Address:

E-mail: Phone numbers:.....

Emergency contact (with phone number):

Expected arrival date (please circle) 17th 18th 19th 20th 21st 22nd 23rd

Expected departure date (please circle) 18th 19th 20th 21st 22nd 23rd 24th

Do you wish to stay over in Horopito, near Ohakune, on the 16th? Yes / No.

(To simplify catering at Horopito, we will either eat out or buy takeaways for the evening meal. Tea, coffee & light breakfast will be provided)

Mode of travel to camp: own car/bus/other (specify).....

If your own car, is it available for day trips? How many passengers?



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)

..... Mobile (.....)

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 2016 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.