



From the President

November 2006 has been a great month for NZ botany with the launch of Audrey Eagle's books, the Cheeseman Symposium and the NZ Plant Conservation Network AGM in Auckland.

We can now look forward to summer and long days in the field. We'll puzzle down our lenses at the structural differences between similar species. We'll rejoice at spectacular landscapes.

Happy botanising everyone.

Bev Abbott

New members

We welcome the following new members to BotSoc: William J. Bevill, James Templeton.

DOC Head Office moves

The office is now at Conservation House, 18–32 Manners St, Wellington. All contact details are unchanged.

DOC Information Centre moves

The visitor centre is now at 2 Manners St, Wellington. Early in February, it will move to the ground floor of Conservation House at the above address.

New phone and fax numbers are:

Phone: 04 384 7770; Fax: 04 384 7773

It costs no more to plant a common or threatened native plant than to plant an agapanthus.

Articles for web site

We welcome articles for consideration for inclusion on our web site: www.wellingtonbotsoc.wellington.net.nz

Please send your article to:

Richard Herbert,
8 Duval Grove,
Redwood,
Wellington

ph 232 6828

fax 381 4518

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

Manawa Karioi Society Revegetation Programme Workbees

Second Sunday each month,
10 a.m. – 2 p.m.

Bring your lunch.

Contact:

Peter Russell ph 389 7942 or
Sally Bowman ph 934 7041

Wellington Botanical Society

President:	Bev Abbott	475 8468	
Vice-Presidents:	Mick Parsons	473 1142	475 7253 (fax)
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	28 Kaihuia St, Northland, Wellington 6012		
Annual	ordinary \$20; country \$15; student \$5;		
Subscription:	group/family \$25.		
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 pm on the third Monday of each month at Victoria University, W'gton – Lecture Theatre 101, ground floor, Murphy Building, west side of Kelburn Parade. Enter building about 20 m down Kelburn Pde from pedestrian overbridge.

Field trips

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

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

DEADLINE FOR COPY FOR NEXT ISSUE – 25 April 2007

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 6036, 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 04 475 7025, or Barbara Mitcalfe ph 04 475 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.

Meetings

Public transport to meetings

You may find the following bus services useful. They stop on Kelburn Parade, about 50 m from Lecture Theatre M101 in the Murphy Building, Victoria University:

TO MEETINGS

No. 23 Mairangi: 6.30 pm from Houghton Bay, 6.40 Zoo, 6.50 Courtenay Place, 6.57 Pastoral House, 7.02 University.

No. 23 Mairangi: 6.55 pm from Southgate, 7.05 Hospital, 7.15 Courtenay Place, 7.22 Pastoral House, 7.27 University.

No. 22 Southgate: 6.55 pm from Mairangi, 7.10 University.

No. 23 Houghton Bay: 7.25 pm from Mairangi, 7.40 University.

No. 17 Railway Station: 6.35 pm from Karori Park, 6.52 University.

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

FROM MEETINGS

No. 23 Southgate: 9.10 from University.

No. 23 Southgate: 10.10 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 Enquiry Service 0800 801-700.

FIELD TRIPS AND EVENING MEETINGS: JANUARY – MAY 2007

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.

Monday 22 January 2007: Field trip

Waimapihi Reserve, Wellington city

NOTE: MONDAY. Botanise this 70-ha reserve in the heart of the city, the site of a community restoration project for the last 25 years. Mahoe has succeeded the gorse over most of the reserve, which has been underplanted with future canopy species such as tawa, titokii and rewarewa. This is an interesting place to see just what does happen when the soil seed bank has been depleted after years of dairy farming, and there are few nearby seed sources. Medium-strenuous with one steep climb up. Meet 9 a.m. at Waimapihi Reserve entrance at the top of Holloway Rd, off Aro St. Catch a no. 23 Mairangi bus to Kelburn and walk down Norway Str, or a no. 7 Kingston bus to Willis St and walk up Aro St. There is limited parking at the top of the street. Leader: Frances Forsyth 384 8891.

Saturday–Sunday 3–4 February: Field trip

Dunvegan and Bankview stations, Wairarapa

Day 1: Dunvegan Station north of Masterton. Map T25. River flats and scarp with three mistletoe species, northern rata and some very large podocarps and maire. Help relocate the plants of *Meliccytus alpinus* that are in the area; there are several sections of bush with two that are protected from grazing. Meet 9 a.m. at Dorset Square Native Reserve, cnr SH2 and Moore St, Featherston.

Day 2: Visit Bankview Station to see *Coprosma pedicellata*, *Pittosporum divaricatum*, *Mazus nz.* etc. Meet 9 a.m. at Te Wharau Road turn off, 3 km north-east of Gladstone. Maps T26, T27. Leader: Pat Enright 06 495 0786. Accommodation: Waitiro, on left of SH2, just past bridge over Ruamahanga River. Beds and tent sites available. \$10 per night per person. Potluck dinner. Bring own drinking water, suggest 4 litres.

Monday 19 February: Evening meeting

Why and how cities will make or break our biodiversity

Speaker: Dr Colin Meurk, Senior Scientist, Landcare Research. Colin, a restoration, landscape and urban ecologist, will touch on the importance of the social/cultural power bases in cities, and describe the critical role and restoration of urban habitats in preserving our unique flora and wildlife - using illustrations of how we can individually make a difference.

Sunday 25 February: Field trip

Wainuiomata Water Catchment

NOTE: SUNDAY. Botanise this northern rata/podocarp forest, the most spectacular in the southern North Island. Booking essential—ring Chris Horne 475 7025 by Wednesday 21 Feb. Meet 9 a.m. at main gate beyond end of Whitcher Grove off Moores Valley Rd. Leader: Ranger, Greater Wellington Regional Council and volunteer guides.

Saturday 10 March: Field trip

Crafar wetland covenant, Te Hapua Wetland, Kapiti

NOTE: SECOND SATURDAY OF MONTH. Morning: botanise the Crafar wetland covenant (6.5 ha), part of the Te Hapua complex. Covenant consists of flaxland, reedland and mingimingi/kanuka treeland. *Baumea articulata*, *Carex dipsacea*, *C. maorica* are found in the area. Afternoon: visit Kapiti Coast District Council Oxbow and Devils Elbow covenants on the Waikanae River just 1.5 km from SH1. See terrestrial northern rata, matai, swamp maire in these adjacent riparian covenants.

Meet 9.30 a.m. on roadside outside 204 Te Hapua Road, off SH2 5 km north of Waikanae. Leaders: Tim Park ph 384-5708 (weekdays) and Paul and Linda Crafar.

Saturday 17 March: Field trip

Native plant identification

NOTE: POSTPONEMENT DATE 18 MARCH. Visit Otari – Wilton's Bush to learn about our native trees, shrubs, vines, ferns and other plants. See regenerating and pre-European forest! Help the leader to guide and advise members of the public who join this walk. Leader Mick Parsons 473 1142. Meet: 10 a.m. Iazard Park, Wilton Rd, at bottom of Norwich St. Catch no. 23 Mairangi bus 9.20 from Courtenay Place to terminus.

Stepping
Out!
steppingout.feelinggreat.co.nz

Absolutely
POSITIVELY
Wellington

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.

Monday 19 March: Evening meeting

Role of plant communities in global climate change

Speaker: Dr Sean Weaver, Lecturer, Environmental Studies Programme, Victoria University. His first degree was in botany, and he later went on to specialise in forest ecology, then forest conservation management, the relationship between science and policy, and now the forest conservation dimension of international climate change policy. He is a member of the Royal Society Climate Committee, an expert reviewer for the Intergovernmental Panel on Climate Change (working Group II), and currently undertaking a research project on the generation of carbon credits from forest conservation in Vanuatu.

Plant communities play a central role in the terrestrial carbon cycle and therefore in the climate system. The biosphere currently absorbs about half of human-induced carbon emissions, with a significant role played by terrestrial plant communities. The eco-physiology of this phenomenon has important implications for global carbon balance assessments and global climate policy. This presentation will explore some of the emerging themes relating to the role of forests in the climate change story.

Saturday 31 March: Field trip

Druce garden workbee

Leader: Helen Druce, 123 Pinehaven Rd, Pinehaven. Ph: 970 7853. Help with maintenance of this nationally important garden containing many threatened indigenous plant species established by Tony and Helen Druce over forty years ago. It is a QEII National Trust Open Space Covenant. Meet from 9.30 a.m. Bring food; hot drinks provided. Bring gloves, kneeler and weeder.

Friday 6 April – Monday 9 April: Easter trip

Tautane Station, Cape Turnagain

Explore and enjoy covenants which include massive northern rata with podocarp, karaka and broadleaf forest and a coastal karaka forest at Poroporo a few kilometres north of the Cape. Cape Turnagain beach walk is also close by. We will assist the QE II National Trust to complete plant lists for some of these covenants. Accommodation: Tautane Station has bunkrooms with full facilities. Station provides access to areas of bush that are being or have been covenanted on the station and around Cape Turnagain. Cost: \$10/person/night plus share of group food. (There is more upmarket accommodation should you wish.) We have booked space already and would appreciate expression of interest by mid-January to be certain we have a bunk each. *Firm reservations by 15 March 2007.* Leader: Marie Taylor (QEII Regional Rep). Wellington contact: Bev Abbott 475 8468, or bevabbott@xtra.co.nz.

Monday 16 April: Evening meeting

Native species gone weedy? A case study with karaka (*Corynocarpus laevigatus*)

Speaker/s: Jill Rapson and/or Jessica Costall (Massey University). This talk will discuss the results of a postgraduate research project, supervised by Jill Rapson at Massey University, Palmerston North. In 2004, 13 bush remnants from the lower North Island were selected to assess the invasiveness of karaka. In all of these sites karaka were associated with Maori pa sites, or had arrived more recently owing to bird dispersal. We compared vegetation in paired plots at each site; one plot contained mature karaka trees, and the other plot contained no mature karaka trees. Results suggest that karaka is strongly invasive, and has the potential to homogenise vegetation, and to replace other native species in small bush fragments of the lower North Island.

Saturday 5 May: Field trip

1. Johnny's bush, Makara Farm 2. Jack & Jill Fenaughty's bush, Makara Beach

1. Johnny's bush: This is a 10-ha area of coastal forest recently protected by a DOC covenant. It has closed canopy kohekohe forest with scattered podocarps.
2. Jack & Jill Fenaughty's bush, 5 ha of covenanted coastal remnant which has been fenced for 12 years. See ngaio, rewarewa, five-finger and kahikatea in gullies, with young matai. Meet: 9 a.m. at low, white-sided bridge c. 2 km along Makara Rd from Makara village. Map R27 G.R. 536935. Limited parking—car-pooling desirable. Leader: Robyn Smith 236 6086; deputy leader: Jack Fenaughty.

GRANTS AVAILABLE

- 9 March. Greater Wellington Regional Council's *Take Care* programme. Up to 5 years' funding available, to \$19,000 maximum. Funding generally follows the formula: year 1: \$3K; year 2: \$5K; year 3: \$5K; year 4: \$5K; year 5: \$1K – total \$19K. Applications open 3 February: www.gw.govt.nz/apply. Information about the programme and projects funded in the past: www.gw.govt.nz/takecare
- 30 March. Wellington City Council Environmental Grants. Application forms available 6 weeks before closing date. Grants Assistant, WCC, PO Box 2199, WN. Ph 801 3185, e-mail katharine.macann@wcc.govt.nz

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

AWARDS AVAILABLE

- **31 May. Loder Cup.** New Zealand's premier conservation award. In 1926, Gerald Loder donated the Cup to encourage and honour New Zealanders who work to investigate, promote, retain and cherish NZ's indigenous flora. Awarded annually to the person, group of people, or organisation, which has exceeded all other nominees in furthering the aims and objects of the donor of the cup, it is entrusted to the Minister of Conservation who appoints the Loder Cup Committee and awards it. Contact: Stasi Turnbull, DOC, Box 10 420, WN. Ph 04 471 0726

EVENTS

- 29 December – 5 January. **Canterbury Botanical Society field trip.** St Arnaud, based at Red Deer Lodge. Canterbury Botanical Society, Box 8212, Riccarton, CH 8440. Ph 03 352 7922, bert.marg@xtra.co.nz
- 12 – 16 February. **International Association for Vegetation Science – 49th Annual Conference.** Theme: NZ: New home; new habitat! new ideas? Massey University, Palmerston North. Contact R.A.vanEssen@massey.ac.nz for circular and to register. Contact Jill Rapson, Ecology, INR, Massey University PNth at G.Rapson@massey.ac.nz if you would like to join any of the excursions.
- 14-15 February. Hamilton. **Identification of wetland sedges and rushes.** Mainly laboratory-based. Taxonomic key provided. Course covers how to identify all genera in the *Cyperaceae* (sedges) and *Juncaceae* (rushes), and all species of the genera *Carex* and *Juncus*. Trainer: P Champion. \$700 + GST. Code 10N2. *Course Administrator – Melanie Mc Kerchar, NIWA, PO Box 8602, Riccarton, CH. www.niwascience.co.nz/edu/training*
- 23 – 24 March. **Otari-Wilton's Bush Bioblitz.** The Trust will run the Bioblitz as part of the Centenary celebrations (August 2006 – August 2007). The Trust's aims in organising the Bioblitz are:
 - To stimulate public interest in the biodiversity of Otari and surrounding areas
 - To add to the scientific knowledge of species in the reserve
 - To raise the public profile of Otari, and support for enhancing its educational amenities.The Trust needs help from enthusiastic scientists, BotSoccers and others, to organise and run the Bioblitz. Please volunteer yourself, or suggest others who may like to be involved. Bioblitz promotes urban biodiversity research and public awareness. Protocols and other planning materials are available from Landcare Research, Auckland. The materials cover topics such as health and safety, protection of the environment, handling and return of specimens, data recording, etc. A Bioblitz occurs over a 24-hour period, when teams of scientists work with school groups and members of the public to locate and identify as many species as possible in the defined area—usually some new species are found! A base camp is established in the reserve, with technical equipment and other resources for identifying and recording species. An organising committee has been established, comprising representatives from Wellington City Council, Victoria University School of Biological Sciences, Royal Society, Greater Wellington Regional Council, and Otari-Wilton's Bush Trust. For further information, and to offer to help, contact *Maggy Wassilieff, z12afp@xtra.co.nz, ph 383 6100.*
- 11 August. **Otari Open Day.** 160 Wilton Road, Wilton, WN. Native plant sales; displays by BotSoc and other groups. More information in next issue. Rewi Elliot, Curator-Manager, Otari-Wilton's Bush, 160 Wilton Rd, Wilton, WN. Ph 475 3245.

PUBLICATIONS

- NZ's marine reserves – protecting our seas – tiakina a Tangaroa.** A snapshot of what we've got in 2006. 600mm by 545mm colour brochure.
- The value of conservation – what does conservation contribute to the economy?** 10/06. 20 p.
- New DOC web site:** www.doc.govt.nz >Publications > Science & technical. Features includes online order form; search full back catalogue online; all current series available as pdfs; online sign-up to subscription services; browse full catalogue by series; new publications page – updated monthly.
- Changes to the forests of Egmont National Park.** S.W. Husheer 2006. *DOC Research and Development Series 257.* 23 p.
- Science & Technical Publishing.** Pamphlet re services provided.
- DOC's new web site: Science & Technical Publishing.** Leaflet.
 - *Science & Technical Publishing, Department of Conservation, Box 10 420, WN 6143.*
- FOOTnotes** Issue 26 11/06: threatened plants protection on Chathams; revegetation at Whitireia Park and Catchpool Valley, Rimutaka Forest Park; covenants protect forest areas in Kapiti; weeds swapped for native plants in Wellington and Lower Hutt; etc.
 - *Department of Conservation, Box 5086, WN 6145. Ph 04 472 5821.*
- Weedbusters!** Issue 10, 12/06: toolkits to help groups tackle weeds; weeds with rhizomes and bulbs; wild ginger species; etc.
 - *Weedbusters, Box 4055, Hamilton. 0274 434 431, info@weedbusters.org.nz*
- Open Space** No. 68, 11/06: QEII Trust receives \$224,217 from Biodiversity Condition Fund to assist 28 landowners to manage their covenants, \$20,000 of which will be used to control weeds in the Trust's Taupo Swamp at Plimmerton; Trust's involvement in Landcare Research's *Sustaining and Restoring Biodiversity* programme; annual report; pest trapping; protecting land with covenants; map showing distribution of covenants; etc.
 - *QEII National Trust, Box 3341, WN; 138 The Terrace. Ph 472 6626, freephone 0508 732 878, fax 472 5578, qe2@org.nz, www.openspace.org.nz*
- The state of our environment – annual summary 2005 – 06.** Eight report cards on environmental topics, but not one on indigenous ecosystems this year.

- 5b. **Annual Report 2006 – progress towards a sustainable region.** Environment management p 57 – 79; land management p 101 – 108; parks and forests – p 115 – 122.
- 5c. **Green Shoots – community newsletter** 12/06: 23,500 plants in revegetation areas; management plan updates; etc.
- 5d. **Regional outdoors programme 2007.**
- 5e. **East Harbour Regional Park Management Plan.** Newsletter 4 11/06: plan review; mainland island project; pest control; etc.
- *Greater Wellington Regional Council, Box 11 646, WN. Ph 384 5708, fax 385 6960, www.gw.govt.nz*
6. **Branch Out.** Vol. 22 Spring 06: Bush City, Te Papa; garden waste dumps revegetated; Otari-Wilton's Bush centenary; lists of workbees, walks, talks, events and environmental groups; etc.
- *Wellington City Council, Box 2199, WN. Ph 499 4444, www.wellington.govt.nz*
7. **Eagle's Complete Trees and Shrubs of NZ – Additional Notes.** Audrey Eagle 2006. \$20 + p&p.
- *Botanical Society of Otago, Box 6214, Dunedin North. 03 479 8244, kevin.gould@botany.otago.ac.nz.*
- 8a. **NZ naturalised vascular plant checklist.** Clayson Howell, John W. D. Sawyer 2006. 60 p. \$10 incl. p& p
- 8b. *Trilepidea*. No. 34 9/06: plant of the month – *Sporodanthus ferrugineus*/bamboo rush or giant wire rush; new populations of Charleston gentian/*Gentianella scopulorum* established; Peter de Lange receives Allan Mere Award; revision of Hymenophyllaceae /filmy ferns; fierce lancewood/*Pseudopanax ferox*; etc. No. 35 10/06: Plant of the month – kohurangi/Kirk's daisy/*Brachyglottis kirkii* var. *kirkii*; *Leucogenes* – an endemic NZ genus; Important Plant Areas – open for nomination; Regional Council threatened plant lists on-line; etc.
- 8c. **President's annual report.**
- 8d. **NZ plant information at your fingertips – a guide to the NZPCN web site.**
- *NZ Plant Conservation Network, Box 16 102, WN. events@nzpcn.org.nz, www.nzpcn.org.nz*
9. **Otari-Wilton's Bush Trust News and Views.** 11/06: guided walks programme; Otari centenary; Bioblitz 23 – 24 March – see *Events* section; revegetation project; etc.
- *Otari-Wilton's Bush Trust, 160 Wilton Rd, Wilton, WN 6012.*
10. **Forest & Bird.** No. 322 11/06: Loder Cup, NZ's premier conservation award won by Assoc. Prof. Bruce Clarkson for his work to recognise and restore native plant communities; coastal pepper cress/*Lepidium banksii* saved from extinction; plants to help bring native birds to Auckland region gardens; Bushy Park near Wanganui; safeguarding our high country heritage; restoration of Wellington's ecosystems; pollination of native plants; etc.
- *Royal Forest and Bird Protection Society, Box 631, WN. Ph 385 7374, fax 385 7373; office@forestandbird.org.nz, www.forestandbird.org.nz*
- 11a. **Auckland Botanical Society News-sheet.** 10/06: Auckland Botanic Gardens Threatened Native Plant Garden reopens; Maureen Young receives NZPCN's Individual Conservation Award – a painting of *Trilepidea adamsii*; etc. 12/06-1/07: Cheeseman Symposium field trips to Waikumete gumland scrub, Oratia Native Plant Nursery, Mercer Bay and Rangitoto Island; etc.
- 11b. **A Dictionary of Maori Plant Names.** J. Beever 1991. \$2 incl. p& p – SALE PRICE!
- 11c. **Meanings and Origins of Botanical Names of NZ Plants.** Marie Taylor 2002. \$27 incl. p & p.
- *Auckland Botanical Society, Box 26 391, Epsom. AK.*
12. **NZ Geographic.** No. 81 9–10/06, p 8-10: Viewpoint – *Superlative natives*. Ian Spellerberg & John Sawyer.
- *NZ Geographic, freephone 0800 782 436, www.nzgeographic.co.nz*
13. **NZ Heritage.** Summer 06 p 12-13: Tapu te Ranga Island – botanical significance, and weeds, some of them non-local native species.
- *NZ Historic Places Trust, Box 2626, WN. 63 Boulcott St, ph 472 4341, 0800 437 482, information@historic.org.nz, www.historic.org.nz*
14. **Rakiura – the wilderness of Stewart Island.** Rob Brown 2006. 116 p. 80 full colour photos h/c or limpbound. Craig Potton Publishing.
- *Bookshops.*
15. **Charles Fleming's Cape Expedition Diary, Auckland Islands, 1942-43.** Edited by Mary McEwen. \$40 + \$6 p&p.
- *McEwen Associates Ltd, 12 Tisdall St, Karori, WN 6012. Ph 476 6163, fax 476 6264, mary.mcewen@xtra.co.nz*
16. **Threatened Native Plant Garden – Our own at risk - Auckland Regional Botanic Gardens.** Pamphlet.
- *Auckland Regional Council, Private Bag 92-012, Auckland 1142.*
17. **A Bluegreen Vision for NZ – Discussion paper.**
- *Hon Dr Nick Smith MP, Parliament House, WN.*

SUBMISSIONS MADE

- **Decline of northern rata, Daly Street, Lower Hutt – Hutt City Council.** 19/12/06 Following our 9 December *Rata Walk*, expressed our concern at the continuing decline of this tree surrounded by a building erected about eight years ago. Asked for report promised by Chief Executive, and information about measures being taken to save the tree.
- **Support for application to Biodiversity Condition Fund, for funding to continue restoration of Te One Bush.** 6/12/06. Impressive 7 ha podocarp/broadleaf forest in Kawhatau Valley, protected by QEII Open Space Covenant, botanised by BotSoc at Easter 2004. Remaining sycamores to be removed.
- **Belmont Regional Park Management Plan review – Greater Wellington Regional Council.** 4/12/06: Asked for: fencing of all areas of indigenous and predominantly indigenous vegetation, to exclude stock, feral pigs and feral goats, and their young; intensive control of pest animals, pest plants and other weeds in all such areas; regular monitoring of the areas. Asked that all the areas be protected as Scenic Reserve under the Reserves Act 1977.

- **Review of level of protection for some NZ wildlife – public discussion document – DOC/Head Office.** 3/11/06. Supported making Canada geese unprotected throughout country. Cited our observations of damage they cause to indigenous plant communities by browsing, fouling and trampling wetland areas, e.g. around tarns in South Island high country, wetlands and near rivers.
- **SH2 Dowse to Petone upgrade – Percy Scenic Reserve - Beca Carter Hollings and Ferner Ltd.** 30/10/06. Commented on Landscape Mitigation Plan; accepted planting plan and information about species, numbers, grades etc; sought corrections to some botanical names and a change of classification of one species; expressed serious concern at lack of confirmation of arrangements or design specifications of replacement buildings shown on plan, e.g. office, mess room, tool room, and myosotis, shade, propagating and alpine houses. The Society believes that replacement buildings and facilities are essential and an integral part of the required Landscape Mitigation Plan, as detailed in the “Memorandum of Understanding: Incursion into Percy Scenic Reserve”, September 2001, which “specifies that HCC will be responsible for the planting and building redevelopment ...” We attached a list of (minimum) required facilities, compiled by the previous Collections Supervisor of the reserve.

SUBMISSIONS CALLED FOR

- **27 January. Otari Native Botanic Garden and Wilton’s Bush Reserve (Otari-Wilton’s Bush) Draft Management Plan.** Wellington City Council, Box 2199, WN. Amber Bill, Planner - Open Space and Recreation Planning, ph 801 3655, fax 801 3155, amber.bill@wcc.govt.nz
- **31 January. Reassessment of sodium fluoroacetate (1080) and substances containing 1080 (a vertebrate toxin).** Environmental Risk Management Authority (ERMA), Box 131, WN. A CD and printed copy of the application and submission form is available from 0800 376 234, 1080@ermanız.govt.nz. www.ermanız.govt.nz.

Winter planting in Wellington

Despite the wet winter, WCC staff, community groups and other volunteers have planted about 110,000 plants around the city, most grown at WCC’s Berhampore Nursery. Plantings included 2500 on Lyall Bay dunes, 2400 at Hape Stream near the former Owhiro Bay quarry, 5500 sedges and grasses on the banks of the realigned section of a tributary of Karori Stream along the west side of Karori Park, and 1500 northern rata, 100 rimu and 1000 other native plants on Tinakori Hill. The bush areas in the Botanic Garden are being restored, and this year twelve black maire seedlings were planted, propagated from the last original tree in the Garden, the first seedling being planted by Mayor Kerry Prendergast. Another 1000 plants have been planted to help to restore the bush areas, some of them as buffer plantings on their margins.

Source: Absolutely Positively Wellington Newsletter October 2006

Otari BioBlitz: Fri 23 & Sat 24 March

Several BotSoc members have already expressed an interest in assisting the plant team on the Bioblitz.

The focus is on field identification of plants with some identification being made at a base in the Otari School Hall. If you would like to be involved and want to know more about the plant side of the Bioblitz then contact Rodney Lewington, rodnejl@xtra.co.nz (04) 475 3145.

If your interest is in other biota (spiders, snails, bugs, algae to name a few) please contact Phil Garnock-Jones, Phil.Garnock-Jones@vuw.ac.nz

Matiu matters

Forest and Bird’s Lower Hutt branch has completed 25 years of restoring native forest to Matiu/Somes Island. About 96,000 plants have been planted and the project is nearing completion, except for maintenance and enhancement for the next few years. The Department of Conservation celebrated the 25 years with a gathering on the island on 4 November. Twenty-five totara were planted, and after a powhiri, a plaque was erected as commemoration, followed by speeches, lunch and displays. That day the island was again made fully open to the public after many months during which asbestos roofing and wall panels were replaced. In the afternoon ornate skinks

were released, and artificial burrows were dug with the hope that fluttering shearwaters can be attracted by sound recordings, to nest on the island. The threatened species garden beside Forest and Bird House has had its first plantings, viz: *Discaria toumatou*, *Melicytus* aff. *obovatus*, *Muehlenbeckia astonii*, *Rubus squarrosus*, *Asplenium obtusatum*, *Aciphylla squarrosa*, *Arthropodium candidum*, *Euphorbia glauca*, *Peperomia urvilleana*, *Plantago raoulii*, *Senecio sterquilinus*, *Trisetum antarcticum* and *Tetragonia tetragonioides*. More specimens of threatened species are being sought from DOC. Forest and Bird House is once more available to members of environmental organisations. Enquiries to Bill Draper, P.O. Box 31 194, Lower Hutt, phone 569 2542.

Stan Butcher.

Kupe/ Kevin Smith Marine Reserve

We welcome the establishment of this 840-ha reserve on Wellington’s south coast between Te Raekaihau Point in the east, and Owhiro Bay in the west. After survey and gazettal in 2007, it will protect in perpetuity the area’s natural features and marine life. When announcing the formation of the reserve, the Minister of Conservation, Hon. Chris Carter, said “...it is to be sited at the confluence of three oceanic currents. The confluence brings together warm, cold temperate and sub-Antarctic waters, allowing a rich and unusual variety of sea-life to thrive. Over 180 fish species are found off Wellington’s south coast”. *Source: The Dominion Post* 7 December 2006. Dr Wendy Nelson, a marine biologist, notes that “The Wellington South Coast is a rugged environment with scenic, cultural, recreational and scientific values. There is high biodiversity in the Cook Strait region—for example there are over 400 species of macroalgae found in this region, representing 40% of NZ’s total flora from the Kermadecs to the sub-Antarctic islands. This level of diversity is very high in global terms—and it is remarkable that it is found such a short distance from the capital city”.

The reserve is 32nd of NZ’s marine reserve which together protect about 0.3% of the mainland’s coastline. The 2167-ha Kapiti Marine Reserve, established in 1992, was the first in the Wellington region. The Government aims to have 10% of our coastline protected by 2010.

Editor

Call for submissions on 2007 NZ threatened vascular plant list

The NZ Plant Conservation Network, in partnership with the Department of Conservation, has launched a submission process for the new NZ threatened vascular plant list for 2007. Submissions may be made using the on-line form on the right side of the home page of the website of the New Zealand Plant Conservation Network – see www.nzpcn.org.nz.

Submissions are welcome until 31 March 2007. The NZ Threatened Plant List will then be compiled by an expert panel comprising Peter de Lange, John Barkla, David Norton, Ewen Cameron, Peter Heenan and Shannel Courtney. It will then be published and will replace the previous list (de Lange *et al.* 2004).

Even if you are not sure about the national status of a species, it is important that you submit your own data or make known your feelings about the changing status of native species based on your own surveys. Possible changes include adding a new species to the threatened plant list or a downgrade or upgrade in threat status from its current listing. For more information see the Network website – www.nzpcn.org.nz

References

de Lange, P.J.; Norton, D.A.; Heenan, P.B.; Courtney, S.P.; Molloy, B.P.J.; Ogle, C.C.; Rance, B.D.; Johnson, P.N.; Hitchmough, R. 2004: Threatened and uncommon plants of New Zealand. *New Zealand Journal of Botany* 42: 45–76.

National seed bank established

The New Zealand Plant Conservation Network announced in November the establishment of a national seed bank for NZ threatened plants. The announcement was made at the Network annual conference in Auckland.

The seed bank project has been sponsored by MWH-NZ Ltd, a consultancy company involved in a wide range of engineering and environmental projects. The seed bank was launched at the Auckland Regional Botanical Gardens by Zoe Burkitt (of MWH) and The Hon. Chris Carter, Minister of Conservation. The seed bank will be incorporated into the Margot Forde Germplasm Centre in Palmerston North and will be managed by AgResearch Ltd. For more information about the seed bank see the website of the New Zealand Plant Conservation Network – www.nzpcn.org.nz

WBS Bulletin 51:

Call for papers and articles

Now that *Wellington Botanical Society Bulletin* 50 is being made ready for publication, work has started on 51. Have you discovered a threatened plant recently or a weed not previously recorded from the region or the country? Have you visited an interesting botanical area and compiled a checklist of species you recorded there? Have you completed research on native plants or plant communities? Have you observed changes in the plants in a local reserve? Have you discovered how to grow a native plant and want to share your knowledge? Have you been involved in restoring native plants to a reserve? The *Bulletin* is your venue for telling stories about plants to your fellow BotSoc members.

Please send articles or contributions to John Sawyer (jsawyer@doc.govt.nz), P.O. Box 5086, Wellington.

Purchase of Otari Farms

We welcome Wellington City Council's purchase of 70 ha of the property contiguous with Otari-Wilton's Bush. The land includes that from the Otari boundary, up to and over the ridge and down to the unformed part of Parkvale Road. The land now in public ownership includes kohekohe forest, with pukatea, regenerating shrublands and pines. WCC has fenced off all the bush areas. Grazing on the part of the land in pasture will be leased to Mr Pierce. The 70-ha will be gazetted as reserve. Formerly owned by Meridian Energy, the remaining 330 ha of the farm have been sold to farmer Russell Pierce.

WCC is working with Russell Pierce to protect the bush-clad headwaters of North Makara Stream between his pasture and the Kilmister Block owned by Council. The gully includes tawa, kiekie and typical Wellington colonising species. BotSoc botanised this area in November 1998 – see trip report in April 1999 *Newsletter*.

The committee will schedule a field trip to the 70-ha site.

Bev Abbott, President

Percy Scenic Reserve extended

We welcome Hutt City Council's acquisition of the Sir James Hector/London Estate which is bush-clad land above SH2, below London Road, Korokoro, and contiguous with Percy Reserve. The land, surplus to the needs of Transit NZ, has been leased to HCC for a peppercorn rental. Among the features of this second-growth forest are the closed canopy to 12m, tawa to 18 m, significant regeneration (seedlings, saplings and poles) of kohekohe and wharangi, hinau to 65 cm d.b.h., and a planted hard beech, 65 cm d.b.h., possibly associated with Sir James Hector.

Lower Hutt Mayor David Ogden wrote to BotSoc on 22 September 2006 to thank us for doing a botanical reconnaissance of the land, and speaking in support of our submission to Hutt City Council on 6 December 2005.

We thank members Barry Dent, Gordon and Sheelagh Leary, Barbara Mitcalfe and Chris Horne, led by Korokoro residents Kate and Barry Malcolm, for preparing a list of native and adventive plant species on the site on 18 November 2005.

Hector was the founder of the Dominion Laboratory, (later Chemistry Division, DSIR), and Geological Survey. Mt Hector is one of the highest points in the Tararua Range. Gordon Leary has suggested to HCC that the land could be officially opened to the public in November 2007 to mark the centenary of Hector's death.

Bev Abbott, President

QEII Trust Open Space Covenants

The trust has recently registered the following Open Space Covenants in the Wellington region:

- Kapiti Coast D.C./Carter – 57.1 ha forest
- Carterton D.C./Mckenzie, McInstry, Gold & Langridge – 16.2-ha wetland
- Carterton D.C./Butterick – 22.2-ha forest
- Porirua C.C./Farmview Ltd (6) – 0.8-ha shrubland
- Wellington C.C./Fenaughty – 5.5-ha forest
- Wellington C.C./Warren – 40-ha shrubland

Source: Open Space no. 68, 11/06

Wanted

Have you seen a liverwort that looks like this? It has a black dashed line down the centre of each “frond”. The illustration is a large specimen—it can be only 15 mm across the whole frond.



Marchantia polymorpha ssp. *ruderalis* has been found growing as a weed in seed-raising trays in the nursery at Otari-Wilton’s Bush and in two other areas that have connections with Otari.

This is a new record for New Zealand. It probably emigrated from the UK and seems to have been here for a few years at least, but not recognised.

The purpose of this note is to seek information on its possible distribution within New Zealand. Its most likely location is in nurseries.

If you see it, please tell Rodney Lewington, rodneyjl@xtra.co.nz; tel 04 475 3145.

Rorippa divaricata

If you have seen this plant in the Mt Messenger/Whitecliffs area, or know where it has been recorded there, please contact me.

Jane Hart, Waikato BotSoc, janehart@xtra.co.nz

T. F. Cheeseman Symposium

This gathering of over 180 professional and amateur botanists, run in conjunction with the NZ Plant Conservation Network Annual Conference, was held 20–22 November at the University of Auckland. It celebrated the centenary of the first edition of Cheeseman’s *Manual of the NZ Flora* (1906). It was organised by Auckland Museum in collaboration with Auckland Botanical Society, Landcare Research, NZ Botanical Society, NZ Plant Conservation Network and University of Auckland.

The programme was:

20 November

Early botanists

Keynote speaker: Ewen Cameron – Thomas Frederick Cheeseman, FLS, FZS, FNZI (1845–1923)

- I. St. George: William Hodges’s watercolours of plants
- E. J. Godley: A. F. W. Schimper and T. F. Cheeseman, biogeographers of the southern cold temperate zone
- D. Galloway: William Lauder Lindsay’s contribution to cryptogamic botany in NZ

NZ floras and bioinformatics

Keynote speaker – Aaron Wilton: *Floras of the future*

- P. J. de Lange: Toward a full Chatham Island vascular flora
- D. Glenny: The NZ liverwort flora
- C. Howell: The exotic vascular flora of NZ

NZ flora systematics

Keynote speaker: Rob Smitsen: *Using molecular genetics to address taxonomic questions: new methods, old problems*

- R. Taskova: Chemical systematics and evolution of *Veronica*
- B. S. Parris: Grammitidaceae of NZ and the world
- P. J. de Lange: Biosystematics of the *Kunzea ericoides* complex

Pollination and reproductive biology

Keynote address. Linda Newstrom-Lloyd: *Pollination systems in NZ*

- P. J. Garnock-Jones: Combined vs separate sexes in the land plant clade
- A. Holzapfel: Hermaphrodites, sex distribution and sex determination in *Dactylanthus taylorii*
- S. H. Anderson: Widespread failure of bird-pollination mutualisms on the NZ mainland

Field trip: Threatened Native Plant Garden, Auckland Regional Botanic Gardens

21 November

Keynote speaker. Andrew Young: *From pattern to process: Ecological and genetic approaches to the analysis of plant population viability*

- J. Collins: From science to community – the conservation of *Atriplex hollowayi*
- D Norton: Plant conservation in the South Island’s high country – challenges and opportunities
- P Knightbridge: Hope for mistletoes
- J Beever: From flora systematics to conservation, a rocky road – case studies in the moss world
- G. Jenks: Back to the future – the incredible functional and aesthetic superiority of NZ’s native dune plants
- M. Piripi: Conservation and hybridisation in the Waimakariri Basin
- A. Townsend: NZ threatened plant listing announcement

Plant morphology, cytology, and function

Keynote speaker. Brian Murray: *Why chromosomes still count*

- P. Novis: Extremophilic algae – a selection from NZ, Antarctica, and North America
- J. Salter: matai and miro – the inside story on the rumour of their separation
- M. I. Dawson: Chromosome relationships of the NZ and Australian Orchidaceae; independent evidence for the recent generic recircumscriptions

22 November

Field trips:

- Rangitoto Island
- Oratia Native Plant Nursery and Waitakare Range

A memorable gathering – congratulations to the organisers!

Editor

Wellington Botanical Society Inc.

Income and expenditure for the year ended 30 June 2006

General Account					
2005	Expenditure	2006	2005	Income	2006
2,294	Printing and Stationery	1,756	3,245	Ordinary	2,281
340	Post and telephone	689	1,452	Country	829
858	Meeting expenses	477	55	Student	25
50	Sundry expenses	172	807	Group	837
217	Subscriptions to other organisations	325	0	Arrears	84
			5,559	Total Subscriptions	4,056
521	Depreciation on equip.	312	2,492	Interest on investment	2,935
880	Transfer to Student Award Fund	920	0		
0	Purchase of publications	384	95	Sale of publications	394
	Donation to the Lucy Moore Memorial Fund	200			
	Contribution to the supplement to Eagle's Trees and Shrubs of New Zealand	2,000			
2,987	Surplus for year	150			
\$8,146		\$7,385	\$8,146		\$7,385

Jubilee Award Fund					
2005	Expenditure	2006	2005	Income	2006
			32,290	Opening Balance	35,001
200	Science Fair Award*		1,652	Donations	2,302
1,000	Jubilee Award	2,000	211	Plant Sales	196
35,001	Closing Balance	38,150	2,048	Interest on Investment	2,651
\$36,201		\$40,150	\$36,201		\$40,150

*Note that because of the timing of the Science Fair the 2005-6 award was paid in the 2004-5 financial year.

Tom Moss Student Award in Bryology					
2005	Expenditure	2006	2005	Income	2006
				Opening Balance	0
				Donations	1,135
0	Closing Balance	1,213		Interest on Investment	78
\$0		\$1,213	\$0		\$1,213

Student Field Grant					
2005	Expenditure	2006	2005	Income	2006
			7,316	Opening Balance	8,010
650	Grants to Students	1,800	464	Interest on Investment	507
8,010	Closing Balance	7,637	880	Transfer from General Account	920
\$8,660		\$9,437	\$8,660		\$9,437

Provision for Bulletin					
2005	Expenditure	2006	2005	Income	2006
			9,193	Opening Balance	11,226
0	Printing Bulletin Distribution costs	2,419	33	Sale of Bulletins	454
		195	2,000	Wellington City Council Grant towards Bulletin publication.	
11,226	Closing Balance	9,066			
\$11,226		\$11,680	\$11,226		\$11,680

Balance Sheet as at 30 June 2006					
2005	Liabilities	2006	2005	Assets	2006
2,010	Life Membership Fund	2,010	3,027	BNZ Current Account	691
35,001	Jubilee Award Fund	38,150	3,070	BNZ Savings Account	3,040
0	Tom Moss Student Award in Bryology	1,213	415	BNZ Business Adv Call Account	0
8,010	Student Field Grant Fund	7,637	6,511	Bank Funds on current account	3,731
11,226	Provision for Bulletins	9,066	397	Computer less depreciation	318
			315	Fax Machines less depreciation	252
2,000	Jubilee Award for 2003-4 awarded but not uplifted during the year.	0	850	Display unit less depreciation	680
			30	Projector	30
141	Sundry creditors	387	16	Stock of Bulletins	16
			24	Camping Equipment	24
42,281	Accumulated fund as at 30 June 2004 add surplus for the year \$150.42	#	180	Sundry debtors	0
	Accumulated fund at 30 June 2005	42,432		Investments	
			11,800	Tower Mortgage Plus Fund	11,800
			10,279	National Bank	10,279
			44,233	BNZ Finance	47,108
			26,033	Westpac Term Investment	26,656
					95,843
\$100,669		\$100,895	\$100,669		\$100,895

The Society has contingent liabilities in respect of funding towards the Nature Trail in the Karori Sanctuary and a further contribution to the cost of the Supplement to the coming edition of Eagle's Trees and Shrubs of New Zealand. These could be up to \$3,800 in the coming year.

The Society has a No 2 Current Account used for handling moneys for field trips. At 30 June 2006 this had a credit of \$2,472. This account is not included above and is not subject to audit.

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

Peter Beveridge
Hon Auditor

TRIP REPORTS

3 June 2006: Wi Parata Reserve and Nga Manu Nature Reserve, Waikanae

This year is the centenary of Wi Parata's death and, although coincidental, it seemed appropriate to be visiting his small preserve of coastal, broadleaf forest. Wi Parata was a community leader in the area, Waikanae being formerly known as Parata Township. As well as gifting the reserve, he was a sheep farmer on Kapiti, an owner of large portions of the Ngarara Block (30,000 acres in the Waikanae area), facilitated the passing of the railway through the area (on condition that all trains stopped at Waikanae), and was a Member of Parliament (and the first Maori cabinet minister). Wi Parata was born on Kapiti in 1835, son of Metapere Waipunahau (Ngati Awa, Ngati Toa) and George Stubbs, the whaler and brother of Hemi Matenga. His son Wi Naera was taken prisoner at Parihaka and one of his daughters married Te Whiti. His descendants are influential members of the local community today.

A group of 22 including a good turnout from the Kapiti area botanised Wi Parata Reserve. The kohekohe was in heavy flower down to near ground, evidence that the jointly (50-50) funded, GW/KCDC possum control programme was succeeding. *Tradescantia* and

Selaginella are present along with other weeds but are getting a hammering from a spraying contractor. The larger trees had a good load of *Astelia* and *Collospermum* hanging gardens, one including a sizeable *Pittosporum cornifolium*/taawhiri karo. Two *P. cornifolium* were also terrestrial. Three *Streblus banksii* were seen, a sapling, a small tree and a skinny, 10m tall tree. All had the leaf shape of *S. banksii*, the larger tree having much smaller leaves, reminiscent of *S. heterophyllus* leaves but lacking any fiddle-shaped leaves. All suffered from the usual galls. Ground cover in the reserve was sparse and is likely to be susceptible to drying out seasonally at the edges. Wi Parata is an enjoyable little reserve and one obviously valued by local residents.

At Nga Manu in the afternoon, four volunteer guides joined our group, keen to compare notes about the inhabitants of the swamp forest remnant. After tearing ourselves away from a healed but beguiling young, pet cormorant, we found a particular highlight in a *Syzygium maire*/maire tawake in heavy flower, its white flowers betraying the Myrtaceae familial line. Rhys Mills, Manager, showed us a couple of excellent *Ileostylus micranthus*, one



Collospermum hastatum. Photo: Jeremy Rolfe.

planted on taupata only four years ago and already bigger than 50 cm.

Participants: Bev Abbott, Karin Andersen, Joy Anderton, Barry Dent, (leader/scribe), Judy Driscoll, Sue Freitag, Errol Hardy, Margaret Herbert, Richard Herbert, Chris Hopkins, Chris Horne, Pam Manning, John McLachlan, Pat Menzies, Anne Meuli, Barbara Mitcalfe, Chris Moore, Mick Parsons, Graham Petterson, Judy Petterson, Jeanette Putnam, Penry Putnam, Sunita Singh, Enid Slim, Grace Suckling, Julia White.

5 August 2006: Queen Elizabeth Park

We visited the plant nursery to see the range of locally sourced native species being raised for planting in the dune and wetland areas in the park

Across Whareroa Road, the revegetation of the wetland margins and surrounding dunes, done in 1997, is impressive, with manuka and kanuka over 3 m high.

To help our botanising of the kahikatea remnant, Pat Enright provided a plant list, based on Colin Ogle's 1981 and 1987 list, with additions made in 2000. Lara added round-leaved fern/*Pellaea rotundifolia*, and we noted several species planted to help with the restoration of this important remnant, e.g. whau/*Entelea arborescens*, large-leaved milk tree/*Streblus banksii*, wharangi/*Melicope ternata*, kotukutuku/*Fuchsia excorticata*, and toetoe/*Cortaderia toetoe*.

The small wetland on the north

side of the remnant which was planted in 2001 has been transformed by harakeke/*Phormium tenax*, cabbage trees/*Cordyline australis* etc.

We crossed pasture on rolling dunelands to the Inland Track on the coastal dunes, then climbed through mahoe forest with numerous, large, shining spleenwort/*Asplenium oblongifolium*, to regain the track beyond a band of blackberry, one of the widespread pest species being controlled by Greater Wellington Regional Council (GWRC). Soon, Leon and Lara rediscovered the one plant of Hooker's spleenwort/*Asplenium hookerianum*, they saw on a previous trip. It was an addition to the dunes list prepared by Barbara Mitcalfe and Chris Horne in 2001. Near the carpark south of Whareroa Beach, we saw sand coprosma/*Coprosma acerosa*, growing through dense veld grass/*Ehrharta*

erecta. On the foredune, near the storm beach, we saw spinifex, pingao and speckled sedge/*Carex testacea*, then on the stream terrace, sand sedge/*Carex pumila*, and another sedge, *Bolboschoenus caldwellii*.

To return to the cars, we travelled in 1939-vintage Wellington Fiducia tram no. 239.

We thank GWRC Parks & Forests staff for supplies of the park brochure, and the leaflets: *Wetland Plants* and *Landscape and Wetlands*, and GWRC Ranger Nikki LaMonica for permission to visit the nursery.

Participants: Margaret Aitken, Karin Andersen, Brian Chittenden, Barbara Clark, Rosemary Collier, Rae Collins, Gavin Dench, Bryan Halliday, Chris Hopkins, Chris Horne (co-leader/scribe), Rosalind Iles, Jean Luke, Barbara Mitcalfe (co-leader), Leon Perrie, Lara Shepherd, Sunita Singh.

3 October 2006: Monitoring riparian plantings on Hutt River

Site 1, on the True Right bank at Totara Park, Awakairangi Park, is the only site where monocots were planted. The rows of coastal flax, swamp flax and toetoe are almost intact, despite being periodically inundated. Even the totaras high up in the second-to-back row have been flooded at times, evidenced by the debris caught up in their crowns and making them hard to find, but most of them are still in position. Most of the back row, manatuu, one of our few deciduous species, have grown to well over 1 m high and are showing healthy, new foliage.

Site 2 has lost all of its first row to floods, but the other 4 rows are relatively intact. At this site, totara were planted in the back row and have subsequently proved very hard to find in the head-high fennel and broom and rank grass because unfortunately, the agreed protocols of the trial prevent any weeding around the plants after their first year. However a determined search revealed many of them still in situ—tarata, kohuhu and manatuu doing better than some other species.

Site 3 is under willows at 2 m spacing, planted as 2 m poles before

our small natives went in, and now averaging about 4 m high. Rank grass and weeds and an (estimated) depth of 0.4 m of since-deposited silt during floods have buried most of the natives here, and few remain. The other half of this site, right at the river's edge, was swept away in a flood a few months after we planted it.

As reported in previous newsletters, this is the fourth year of the five-year performance trial of selected, selected native species in comparison with other, selected native species. Greater Wellington Regional Council funded the purchase of the nursery-grown plants. At the end of the trials, an independent agency will compare the results.

Participants: Dave Holey, Chris Horne, Zena Kavas, Barbara Mitcalfe, (leader/scribe), Sue Millar, Syd Moore, Glennis Sheppard, plus Jacqui Cox, Kim and Steve Murphy, on behalf of Greater Wellington.



Site 3 at Avalon, True Left of Hutt River.
Photo: Barbara Mitcalfe.

28 October 2006: Dench garden weeding

It's always a treat to work in a native garden of such distinction as this one in the misty heights of Newlands. The day was fine and we worked with admiration, determination, and as much precision as we could muster, to ensure no treasures were rooted out by mistake. For instance, minute seedlings of "Geranium Von" whose forebears hitch-hiked from the wild, into a pot in the Druce garden years ago, are now very much at home

in the Dench garden, their coppery foliage unmistakable amongst the alpines. A rogue (*Dryopteris filix-mas*) fern masquerading as *Pneumatopteris pennigera* was sternly ushered into the bin, and small trackside weeds which had germinated in the wet Spring were relentlessly removed. Later we indulged in the usual botanical buzz of conversation around a delicious morning tea.

Participants: Arnold and Ruth Dench (co-leaders), Robin and Bryan Halliday, Chris Horne, Rodney Lewington, Elena Machin, Phil Parnell, Barbara Mitcalfe (scribe), Darea Sherratt, Carol West.

18 November 2006: Te Marua Bush workbee

Six people braved the wet, windy day for to plant 85 plants into the puddles and mud in the recently enclosed new area of Te Marua Bush. At least 16 of these were replacements for others stolen since our planting on 12 August this year. The south end had more of the hardy mix of toetoe, karamu, manuka and kanuka planted to form some wind

protection before we plant again here in 2007. Plants put in during the August workbee have established well, and grass and weeds were cleared from around them. This is much the latest planting we have done in the Upper Hutt area—usually we have to stop planting in September, but an unusually long, wet, autumn/winter/spring has enabled

us to extend our planting season this year.

Participants: GWRC Kaitoke Ranger Steve Edwards, Chris Horne, Sue Millar, (co-leader/scribe), Barbara Mitcalfe, Allan Sheppard, Glennis Sheppard, (co-leader).

6 October 2006: Keith George Memorial Park/Silverstream Scenic Reserve

These contiguous areas comprise 114 ha of steep forested hillside on the scarp of the Wellington Fault. Before the arrival of Europeans, the undisturbed forest was dominated by matai and miro. Between 1890 and 1920 the forest was logged and is now regenerating, forming a mosaic of several forest types.

On the lower slopes and more fertile sites, broadleaf and podocarp species are present, with a canopy dominated by tawa, with hinau and rewarewa also present. There are some remnants of matai and miro, but their regeneration has been slow. However, they are likely to dominate the forest again, given sufficient time without disturbance.

On the poorer leached soils and dry ridges, black beech and hard beech are

the dominant species.

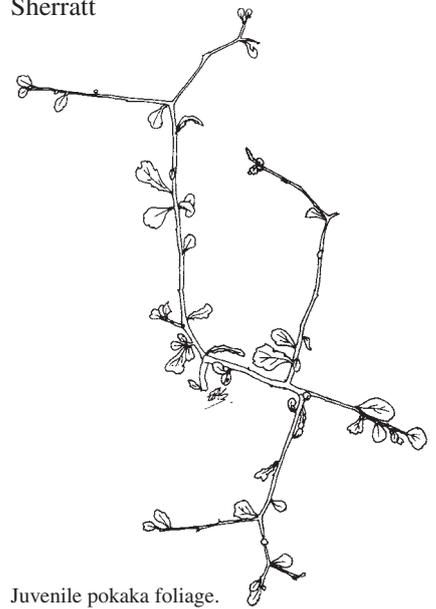
Over the last four years, a volunteer group, including BotSoccers Allan and Glennis Sheppard, have drastically reduced the infestations of possums and rats in the forest. Stoat control began in November 2005. This work has increased the numbers of kereru, tui, bellbird/korimako, whitehead/popokatea in the area, and falcon/karearea and kakariki have been recorded.

We botanised the North Ridge Track and saw a large matai d.b.h. 1.5m, and a huge pokaka d.b.h. 1.4m. The *Peraxilla tetrapetala*/red mistletoe, a large plant, was in good health, with numerous flowers developing. The wet spring has spurred a great response from the ferns, and

carpets of fresh green *Hymenophyllum nephrophyllum*/kidney fern caught our attention. Among the trees and shrubs we saw were titoki, *Coprosma propinqua*, poataniwha/*Melicope simplex*, and manatu/lowland ribbonwood.

We saw the orchids *Pterostylis graminea*/greenhood/tutukiwi, *Drymoanthus adversus*, *Ichthyostomum pygmaeum*, and *Singularybas oblongus*/spider orchid.

Participants: Bev Abbott, Beth Andrews, Pat Enright, Sue Freitag, Ian and Jill Goodwin, Dave Holey, Chris Hopkins (leader/scribe), Chris Horne, Rodney Lewington, Barbara Mitcalfe, Leon Perrie, Jeremy Rolfe, Darea Sherratt



Juvenile pokaka foliage.
Illustration: Eleanor Burton.



Above: *Singularybas oblongus*.
Left: The huge pokaka, North Ridge Track.
Photos: Jeremy Rolfe.

2–3 December 2006: Clive and Phyl Paton’s conservation covenant

The Atarangi covenant is well-known for its large population of northern rata, *Metrosideros robusta*, discovered by Jo Hansen in recent years. On Saturday Clive kindly lent us 4WD vehicles to ferry our camping equipment to the hut. Slow, careful driving was needed, and en route we noted the extensive trackside plantings and festoons of the native convolvulus *Calystegia tuguriorum* in flower. After setting up tents and a quick cuppa we set off to climb to “Rata Ridge”. First we traversed the manuka flat affectionately named “Spongy Pud” by the Paton family, where ground-cover of mosses, ferns including *Lindsaea linearis*, and occasional orchids such as *Petalochilus chlorostylus* is developing after earlier grazing.



Petalochilus chlorostylus. Photo: Jeremy Rolfe.

As we climbed we passed through regenerating rimu and into hard beech, kamahi, and white maire, noting the frequent occurrence of *Coprosma linariifolia*, and the occasional, epiphytic orchid, *Drymoanthus adversus* in

flower. After gaining the ridge crest we could see that we needed to tramp right round the headwaters of the catchment of a TR tributary of Waihora Stream, in order to reach the ratas, south of Bush Ridge T, 358 m. At lunch, under young northern rata beginning to flower, Clive told us the history of the covenant. Nearby was a distinctive area of 3–4 m tall *Dracophyllum longifolium* and associated epacrids, then it was a steep scramble down to the stream, where we saw the first fuchsia saplings and a range of other streamside species. After nearly two hours of wading we arrived back at the hut and settled in for the night. Next day we botanised a small, TR tributary which enters Waihora Stream at NZMS 260 S27, 011837, finding the (uncommon) *Trichomanes endlicherianum*. We thank Pat Enright for his lists and Clive for the use of his hut and for his hospitality during this very pleasant trip.

Participants: Bev Abbott, Gavin Dench, Bryan Halliday, Chris Hopkins, Chris Horne, Gordon and Sheelagh Leary, Rodney Lewington, Barbara Mitcalfe, (scribe), Clive Paton (leader), Darea Sherratt, Sunita Singh, Robyn Smith.



The Patons’ crib at Waihora Valley. Photo: Barbara Mitcalfe.

9 December 2006: Hutt City rata walk

Despite the weather, this year we had a pleasing increase in the number of walkers. We first did a small loop to the east of the Hutt River to check northern ratas not seen on the first two years’ walks. This loop included newer plantings, two recent sightings and a good close-up of the flowers, which we compared with pohutukawa, *Metrosideros excelsa*. A lovely, older, northern rata/*Metrosideros robusta* at 1 Laery St. gave us a particularly fine display of flower, and we saw three more in Pharazyn St., from the western stop-bank. From there we noted the sad sight of the Daly St. rata continuing to decline because of the building constructed around the trunk it 2–3 years ago. (See Submissions, page 6 of this newsletter for a mention of the latest letter BotSoc has written to Hutt

City Council about this matter)

We stepped out again from the start point, this time to the west, noting rata in full, floral display in Penrose St, Leighton Ave and Waiwhetu Rd, the latter being a magnificent, protected tree. At this juncture, the inclement weather, typical of this year, set in, and we retreated to Uwe’s home for a well-needed and convivial lunch break. Here a sub-tropical *Feijoa sellowiana*—named after the Brazilian botanist de Silva Feijo—had some flowers which we compared with rata, a member of the same family. The rain ceased and we went out towards the marae and the whare waka where we saw several more street specimens. From nearby we studied through binoculars several more rata on the eastern hills which must have benefitted from the interest of local

residents in trapping possums. Sheena’s eagle eye was very useful here.

We then headed back, seeing several more rata en route, in the Waterloo area. Lynal took a group photo under a cascading rata in Kings Crescent, and Barbara expanded on the differences between our native ngaio, *Myoporum laetum*, and the extensively planted Australian boobialla, *Myoporum* sp., with which it hybridises. Chris described other examples of the native flora.

Participants: Rita Chin, Vera Ellen, Dave Holey, (leader/scribe), Chris Horne, Sheena and Stuart Hudson, Lynal Hurley and (four-legged) “Flossie”, Marianne Jenner, Graeme and Carolyn Lyon, Barbara Mitcalfe, (deputy leader), Uwe Morgenstein, Ros Reid and Zoe Smith.

Wellington Botanical Society Inc. – Membership Application

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

I wish to join the Society

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

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

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

I would like to receive my newsletters by e-mail as a PDF Please tick if appropriate.

My e-mail address@.....

Signature Date:..... / / 200...

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

Type of membership: Ordinary \$20; Country \$15; Student \$5. Group/family \$25.

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

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

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Wellington Botanical Society

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



Field trips/evening meetings: January–May 2007

For details see www.wellingtonbotsoc.wellington.net.nz
or phone trip leaders.

Meetings held 7.30 p.m., 3rd Monday each month, room M101,
Murphy Building, Victoria University, Kelburn Parade

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.

Monday 22 January 2007: Field trip

Waimapihi Reserve, Wellington city

NOTE: MONDAY. Botanise this 70-ha reserve in the heart of the city, the site of a community restoration project for the last 25 years. Mahoe has succeeded the gorse over most of the reserve, which has been underplanted with future canopy species such as tawa, titokii and rewarewa. This is an interesting place to see just what does happen when the soil seed bank has been depleted after years of dairy farming, and there are few nearby seed sources. Medium-strenuous with one steep climb up. Meet 9 a.m. at Waimapihi Reserve entrance at the top of Holloway Rd, off Aro St. Catch a no. 23 Mairangi bus to Kelburn and walk down Norway Str, or a no. 7 Kingston bus to Willis St and walk up Aro St. There is limited parking at the top of the street. Leader: Frances Forsyth 384 8891.

Saturday–Sunday 3–4 February: Field trip

Dunvegan and Bankview stations, Wairarapa

Day 1: Dunvegan Station north of Masterton. Map T25. River flats and scarp with three mistletoe species, northern rata and some very large podocarps and maire. Help relocate the plants of *Melicytus alpinus* that are in the area; there are several sections of bush with two that are protected from grazing. Meet 9 a.m. at Dorset Square Native Reserve, cnr SH2 and Moore St, Featherston.

Day 2: Visit Bankview Station to see *Coprosma pedicellata*, *Pittosporum divaricatum*, *Mazus nz.* etc. Meet 9 a.m. at Te Wharau Road turn off, 3 km north-east of Gladstone. Maps T26, T27. Leader: Pat Enright 06 495 0786. Accommodation: Waitiro, on left of SH2, just past bridge over Ruamahanga River. Beds and tent sites available. \$10 per night per person. Potluck dinner. Bring own drinking water, suggest 4 litres.

Monday 19 February: Evening meeting

Why and how cities will make or break our biodiversity

Speaker: Dr Colin Meurk, Senior Scientist, Landcare Research. Colin, a restoration, landscape and urban ecologist, will touch on the importance of the social/cultural power bases in cities, and describe the critical role and restoration of urban habitats in preserving our unique flora and wildlife - using illustrations of how we can individually make a difference.

Sunday 25 February: Field trip

Wainuiomata Water Catchment

NOTE: SUNDAY. Botanise this northern rata/podocarp forest, the most spectacular in the southern North Island. Booking essential—ring Chris Horne 475 7025 by Wednesday 21 Feb. Meet 9 a.m. at main gate beyond end of Whitcher Grove off Moores Valley Rd. Leader: Ranger, Greater Wellington Regional Council and volunteer guides.

Saturday 10 March: Field trip

Crafar wetland covenant, Te Hapua Wetland, Kapiti

NOTE: SECOND SATURDAY OF MONTH. Morning: botanise the Crafar wetland covenant (6.5 ha), part of the Te Hapua complex. Covenant consists of flaxland, reedland and mingimingi/kanuka treeland. *Baumea articulata*, *Carex dipsacea*, *C. maorica* are found in the area. Afternoon: visit Kapiti Coast District Council Oxbow and Devils Elbow covenants on the Waikanae River just 1.5 km from SH1. See terrestrial northern rata, matai, swamp maire in these adjacent riparian covenants.

Meet 9.30 a.m. on roadside outside 204 Te Hapua Road, off SH2 5 km north of Waikanae. Leaders: Tim Park ph 384-5708 (weekdays) and Paul and Linda Crafar.

Saturday 17 March: Field trip

Native plant identification

NOTE: POSTPONEMENT DATE 18 MARCH. Visit Otari – Wilton's Bush to learn about our native trees, shrubs, vines, ferns and other plants. See regenerating and pre-European forest! Help the leader to guide and advise members of the public who join this walk. Leader Mick Parsons 473 1142. Meet: 10 a.m. IZARD Park, Wilton Rd, at bottom of Norwich St. Catch no. 23 Mairangi bus 9.20 from Courtenay Place to terminus.

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Monday 19 March: Evening meeting

Role of plant communities in global climate change

Speaker: Dr Sean Weaver, Lecturer, Environmental Studies Programme, Victoria University. His first degree was in botany, and he later went on to specialise in forest ecology, then forest conservation management, the relationship between science and policy, and now the forest conservation dimension of international climate change policy. He is a member of the Royal Society Climate Committee, an expert reviewer for the Intergovernmental Panel on Climate Change (working Group II), and currently undertaking a research project on the generation of carbon credits from forest conservation in Vanuatu.

Plant communities play a central role in the terrestrial carbon cycle and therefore in the climate system. The biosphere currently absorbs about half of human-induced carbon emissions, with a significant role played by terrestrial plant communities. The eco-physiology of this phenomenon has important implications for global carbon balance assessments and global climate policy. This presentation will explore some of the emerging themes relating to the role of forests in the climate change story.

Saturday 31 March: Field trip

Druce garden workbee

Leader: Helen Druce, 123 Pinehaven Rd, Pinehaven. Ph: 970 7853. Help with maintenance of this nationally important garden containing many threatened indigenous plant species established by Tony and Helen Druce over forty years ago. It is a QEII National Trust Open Space Covenant. Meet from 9.30 a.m. Bring food; hot drinks provided. Bring gloves, kneeler and weeder.

Friday 6 April – Monday 9 April: Easter trip

Tautane Station, Cape Turnagain

Explore and enjoy covenants which include massive northern rata with podocarp, karaka and broadleaf forest and a coastal karaka forest at Poroporo a few kilometres north of the Cape. Cape Turnagain beach walk is also close by. We will assist the QE II National Trust to complete plant lists for some of these covenants. Accommodation: Tautane Station has bunkrooms with full facilities. Station provides access to areas of bush that are being or have been covenanted on the station and around Cape Turnagain. Cost: \$10/person/night plus share of group food. (There is more upmarket accommodation should you wish.) We have booked space already and would appreciate expression of interest by mid-January to be certain we have a bunk each. *Firm reservations by 15 March 2007.* Leader: Marie Taylor (QEII Regional Rep). Wellington contact: Bev Abbott 475 8468, or bevabbott@xtra.co.nz.

Monday 16 April: Evening meeting

Native species gone weedy? A case study with karaka (*Corynocarpus laevigatus*)

Speaker/s: Jill Rapson and/or Jessica Costall (Massey University). This talk will discuss the results of a postgraduate research project, supervised by Jill Rapson at Massey University, Palmerston North. In 2004, 13 bush remnants from the lower North Island were selected to assess the invasiveness of karaka. In all of these sites karaka were associated with Maori pa sites, or had arrived more recently owing to bird dispersal. We compared vegetation in paired plots at each site; one plot contained mature karaka trees, and the other plot contained no mature karaka trees. Results suggest that karaka is strongly invasive, and has the potential to homogenise vegetation, and to replace other native species in small bush fragments of the lower North Island.

Saturday 5 May: Field trip

1. Johnny's bush, Makara Farm 2. Jack & Jill Fenaughty's bush, Makara Beach

1. Johnny's bush: This is a 10-ha area of coastal forest recently protected by a DOC covenant. It has closed canopy kohekohe forest with scattered podocarps.
2. Jack & Jill Fenaughty's bush, 5 ha of covenanted coastal remnant which has been fenced for 12 years. See ngaio, rewarewa, five-finger and kahikatea in gullies, with young matai. Meet: 9 a.m. at low, white-sided bridge c. 2 km along Makara Rd from Makara village. Map R27 G.R. 536935. Limited parking—car-pooling desirable. Leader: Robyn Smith 236 6086; deputy leader: Jack Fenaughty.