



NEWSLETTER

April 2001

Last Issue: December 2000

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Dr John Dawson honoured

We congratulate John whose study of the botany of New Caledonia has earned him the Alliance Francaise's Dunmore Medal. His research there has spanned over 30 years.

New Caledonia has a distinctive flora including some genera that exist in New Zealand. They have more species of *Metrosideros* than we have, and five species of *Agathis*. John is a well-known author of botanical texts, illustrated by photographer Rob Lucas. They are working on a history of plants throughout the world, to be published late this year.

Vicky Froude
President

WBS Student Travel Grants

Wellington Botanical Society student travel grants to assist with botanical research. For information, contact Prof. Phil Garnock-Jones. School of Biological Sciences, Victoria University, ph 472 1000. (See also "Programme" section of this newsletter: Evening meeting – 19 November: Botanical research at Victoria University – reports by recipients).

Manawa Karioi Society Revegetation Programme

WORK BEES

10.00 am every Wednesday
and

2nd Sunday each month.

Lunch provided.

*Potted native seedlings
welcome. Thank you.*

Contact:

Morgan Cox ph 383 5168 or
Sally Bowman ph 934 7041

BotSoc bulletin

The 60th anniversary issue of the Bulletin, No. 48, is being readied for publication, so we are now accepting contributions for issue No.49. We already have two-thirds of the issue, so please contact John Sawyer if you would like to write an article. You can write about a particular Wellington species, rare or common, a particular place that is botanically interesting, perhaps including a species checklist, your experiences in cultivating native plants, a recent botanical discovery in the region, observations on the flowering or fruiting of native plants, or your observations of ecological interactions between species. Please send articles to:

John Sawyer, Editor, WBS Bulletin, Department of Conservation, PO Box 5086, Wellington

Wellington Botanical Society

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Annual Subscription: ordinary \$22; country \$17; student \$12.
Send your subscription to Treasurer, WBS, PO Box 10-412, WN.
Please use the subscription form at the back of this Newsletter.

Meetings

Botanical Society meetings are normally held at 7.30 pm on the third Monday of each month at Victoria University, Wellington, Room K301, 3rd floor, New Kirk Building, Kelburn Parade. From Kelburn Parade, climb steps towards Easterfield Building, then walk north to door into 3rd floor of New Kirk Building, where pedestrian overbridge joins it.

Field Trips

Day trips to locations in the Wellington region are usually held on the first Saturday of each month. Extended excursions are normally held at New Year, Wellington Anniversary Weekend and Easter.

DEADLINE FOR COPY FOR NEXT ISSUE – 15 August 2001

PROGRAMME: APRIL–DECEMBER 2001

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

In addition to all 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!!

If you intend to join a trip, **PLEASE** phone the leader at least **TWO DAYS** beforehand. This will enable him/her to arrange for a copy of the species list for you, and to let you know of any changes and/or particular requirements. If you cannot ring so far in advance, you are still welcome to join on the day.

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.

REIMBURSEMENT OF DRIVERS

If you travel on a trip in someone else's vehicle, please pay your share of the running costs to your driver. If a trip on the inter-island ferry is involved, please pay your driver your share of the ferry fare.

PUBLIC TRANSPORT TO MEETINGS

You may find the following bus services useful. They stop on Kelburn Parade, about 100m from Lecture Theatre K301 in the New Kirk 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. 17 Karori Park - 7.07 pm from Bunny Street, 7.15 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 - 6.37 pm from Karori Park, 6.54 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 pm.

For further information ring Ridewell Enquiry Service 801-7000.

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 week-end trips, and SEVERAL WEEKS' notice before the New Year's trip.

Help the Editor

Compiling this newsletter takes several days. If you can help by word-processing your own material and sending it on disk, preferably in WordPerfect 5.1, it will be much appreciated.

Easter Friday 13–Monday 16 April 2001: Field trip Reserve/Mangaweka/Hawkens Lagoon

Paengaroa Scenic

Friday the 13th!: Meet near intersection of Foxton Beach Rd and Palmer Rd at 11.30am. Botanise “Round Bush”, a recommended swamp forest just north of Foxton. It contains pukatea and kahikatea plus..... After Round Bush we will go up the coast to Tangimoana Dunelands which are one of the last remaining dune areas of the Manawatu. We should be able to find pingao, *Pimelea arenaria*, *Coprosma acerosa*, *Gunnera arenaria*, *Schoenus nitens* and the endangered *Eleocharis neozelandica*.

Saturday: guided by Tony Silbery, we will botanise Paengaroa Scenic Reserve which contains 32 species of divaricating plants including *Olearia gardnerii*, *Coprosma wallii*, *C. obconica*, *C. virescens*, *Melicytus flexuosus* plus... We may also have time to visit *Celmisia gracilentata* var. “Mangaweka” and *Dactylanthus taylorii*.

Sunday morning: Jim Campbell, DOC, Whanganui will show us his recently discovered population of *Sebaea ovata* at Hawkens Lagoon. This is one of the most threatened plants in NZ. Although the *Sebaea* will have disappeared by Easter (for the winter), we can hopefully add to the species list of this remarkable coastal community.

Sunday afternoon: we will search the Castlecliff area for “*Pimelea Turakina*”. One plant was seen in this spinifex dune system 18 months ago.

Accommodation: Whanganui Girl Guide camp, on right hand side of SH3 up from Virginia Lake, just past Mannington Road. See sign on fence. Camp sleeps 20 in bunks and has plenty of room for tents. Bring sleeping bag, pillowcase, all your food, \$15 per night and warm clothes. Everything else is supplied. As a general guide for those sharing dinners, we will have cold meat and salad on Friday, stew and veges on Saturday and chicken on Sunday.

Monday: on the way home we can stop at either Turakina and see “*Pimelea Turakina*,” or go to Sutherland’s Bush, or Simpson’s Bush. Maps: Taihape T21, Please phone to book a bunk or tent site by early April 2001. Phone leaders: Robyn Smith 236 6086* and Jill Goodwin 475 7248. * NB: Please note my phone number which was incorrect in the last newsletter.

Monday 23 April: Evening meeting

Seed dispersal by lizards

Speaker: Debra Wotton

Debra did her field work on Mana Island with the aid of a student travel grant from BotSoc.

Saturday 5 May: Field Trip

Threatened Species Plantings at Tapu Te Ranga Marae

(Note: The Carey Gully trip planned for this date has been postponed indefinitely. For further information see the next newsletter). It is several years since BotSoc visited the marae. Since then, with DOC’s support, BotSoccer Dean Bagent-Mercer has established “insurance” plantings of some locally threatened species. After a tour of the gardens with their very wide range of native species from all over the country, (including many alpiners planted by kaumatua Bruce Stewart), those who are able to stay a while are invited to help with potting-up, planting and/or weeding. Rob Stone, Biodiversity Officer, Poneke Area, DOC, will have *Clematis afoliata*, *Acaena pallida* and *Rubus squarrosus* for us to plant. Bring lunch etc. as usual. Catch 9.04am No.1 Island Bay bus from Lambton Interchange; alight at corner of Dee St. From Dee St turn L. into Eden St, R. into Seine St, then go to the top of Rhine St, turning R. into marae carpark. Meet at 9.30am. Map R27 Wellington GR 581846. Phone leader: Barbara Mitcalfe, 475-7149, or deputy leader: Chris Horne 475 7025.

Monday 21 May: Evening meeting

AP (Tony) Druce Memorial Lecture

Speaker: Dr Ian Atkinson, Ecologist, Ecological Research Associates of NZ.

Sunday 10 June: Field trip

Wainuiomata Catchment

NOTE: CHANGE OF DAY AND DATE FROM USUAL.

This will be a guided trip into the finest remnant of podocarp/northern rata forest in the Wellington region. Opened to the public for the first time in December 2000, and only for organised groups of up to 20 people once per month, this beautiful valley will be a highlight among your field trips. Meet at 9.30am at gate in Reservoir Rd. Travel via Wainuiomata Rd, Main Rd, left into Moores Valley Rd, and after 1km go right into Whitcher Gr which becomes Reservoir Rd. Map R27 Wellington GR 753905. BOOKING ESSENTIAL - maximum 20 people. Phone leader: Vicky Froude 233 9823, vfroude@paradise.net.nz. Deputy leader: Peter Beveridge 237 8777.

Monday 18 June: Evening meeting Recent work on the evolution of the concept of scenic reserves in NZ.

Speaker: Dr Geoff Park, writer and ecologist. Geoff will describe his work on this subject, and include comparisons with the 19th century “picturesque landscapes” of the English Lake District, and their translation into the NZ landscape

Saturday 7 July: Field trip**Galbraiths Gully & Holdaway Scenic Reserve**

These important remnants on the Western Hutt hills feature kohekohe, titoki, pukatea, nikau, regenerating shrublands and delightful streams. We will use tracks and easy valley floor routes. We will be joined by members of the newly-formed "Friends of Galbraiths Gully" and help them to prepare a list of species in the gully, and make suggestions for its management. Meet at 9.30am at carpark on Korokoro Rd, 100m up it from SH2. Map R27 Wellington GR 668968. Catch 9.05 Hutt line train from Wellington Station to Petone, then cross overbridge to SH2. Phone leader: Chris Horne 475 7025, or deputy leader: Barbara Mitcalfe 475 7149.

Monday 16 July: 1. SPECIAL GENERAL MEETING**Proposed changes to constitution
Megaherbs of Campbell Island****2. Evening meeting**

1. Please attend this brief meeting so that you can comment on the draft which seeks to update our constitution
2. Speaker: Vivienne Nicholls, Department of Conservation, Palmerston North

Saturday 28 July: EXTRA field trip**Te Marua Bush: Planting.**

BotSoc has struggled for 11 years to rid this regionally significant remnant of matai/totara/maire terrace forest of invasive pest plants such as *Tradescantia fluminensis*. AT LAST, HELP IS AT HAND! We hereby acknowledge with gratitude a generous grant from Wellington Regional Council to assist in this work for which there will be further grants in 2002 and 2003. We are hiring a contractor to deal with the weeds, and will repay Upper Hutt Branch of Forest and Bird for the many bags of potting and seed mix used by them in raising local seedlings for our restoration plantings in the Bush. With the *Tradescantia* under control and while the ground is moist, NOW IS THE TIME TO PLANT THE GAPS. Come and help continue this vital work to honour our commitment to Wellington Regional Council! Bring gloves, kneeler, and tools e.g. rake, loppers, saw, grubber. Meet 9.30am in Upper Hutt Station carpark, or 9.45am at site. Map R26 Paraparaumu GR 892107. Catch 8.35am Hutt line train from Wellington Station. Phone leaders: Sue Millar 526 7440, Glenys Sheppard 526 7450.

Saturday 4 August: Field trip**Maara Roa, Cannons Creek**

Botanise this impressive coastal forest remnant in the Cannons Creek catchment in Belmont Regional Park. See kohekohe-dominant forest, stands of tawa, and kohekohe-kahikatea forest in the 11ha Cannons Creek Covenant. Help the "Friends of Maara Roa" to expand their species list for the restoration project, and make suggestions for planting and management - 3hrs; then an optional bush crash!! Meet 9.45am near recycling bins in carpark behind Cannons Creek shops, Warspite Ave. Map R27 Wellington 667055. Catch 9.00am train on Paraparaumu line from Wellington Station to Porirua Station, then No.21 Ascot Park bus to Cannons Creek shops. Phone leader: Neil Bellingham 235 5501, or deputy leader: Boyden Evans 473 6175.

Monday 20 August: 1. ANNUAL GENERAL MEETING**2. Evening meeting Shoreline to bushline in Chile - some comparisons with NZ**

Hear about the botanical delights seen on a trip earlier this year.

Speakers: Rodney Lewington and Darea Sherratt

Saturday 1–Sunday 2 September: Field trip**Mana Island**

Re-measure the point-intersect transects we did across Waikoko wetland in 1999, then help with revegetation work - tasks to suit all interests include work in nursery, releasing plantings from rank grass growth, etc. Tools provided. Pot luck dinner Saturday night. A chance both days to walk some of the tracks to see forest remnants, 20 years of plantings, the "gannet" colony, and extensive views. Catch 8.02am train on Paraparaumu line from Wellington Station. BOOKING ESSENTIAL to ensure place on launch -maximum 20. Meet 8.45am at Fishermans Wharf, Paremata, near Paremata Station. Fare \$ TBA. Map R26 Paraparaumu GR 668096. Mana is on same map. Phone leader: Vicky Froude 233 9823, or deputy leader: Robyn Smith 236 6086.

Monday 17 September: Evening meeting**Botany of Banks Peninsula – A foretaste of the book**

Speaker: Hugh Wilson, ecologist, botanist, author and illustrator of several botanical books, and manager of Hine-wai Reserve, Banks Peninsula.

Saturday 6 October: Field trip**Dobsons/Tauherenikau**

Botanise beech/kamahi forest in the Tararua Range from Kaitoke up to the scarp of the Wellington Fault beyond the site of former Dobsons Hut, then descend to Tauherenikau River, and return via Smith Creek and Puffer tracks. Meet 8.30am at Upper Hutt Station carpark. Park at Kiwi Ranch, off Marchant Rd. Map S26 Carterton GR 974121. Catch 7.35am train from Wellington Station on Hutt line. Phone leader: Peter Beveridge 237 8777, or deputy leader: Chris Horne 475 7025.

Monday 15 October: Evening meeting**1. Brassicaceae; 2. Sophora**

Speaker: Peter Heenan, Herbarium Curator, Landcare Research, Christchurch.

Saturday 3 November: Field trip

Botanise the spectacular coastline north of Makara Beach; look for *Pimelea arenaria*. Bring binoculars to view sea-bird colony. Meet 9.30am at Johnsonville Railway Station. Catch 9.02am train on Johnsonville line from Wellington Station. Map R27 Wellington. Phone leader: Pat Enright 938 7537, or deputy leader: Peter Beveridge 237 8777.

Boom Rock – Pipinui Point

Monday 19 November: Evening meeting

Speakers: Students who have received BotSoc Travel Grants to help with their field work, report on their results. (See also “Grants available” section of this newsletter).

Botanical research at Victoria University

Saturday 1–Sunday 2 December

Botanise Kaiwhata River mouth and Uruti Dune, the largest dune system in Eastern Wairarapa. Accommodation and meeting place: TBA. Potluck dinner Saturday night. Map T27 Te Wharau. Leader: TBA. Details in next newsletter.

Eastern Wairarapa

Thursday 27 December–Monday 7 January 2002

Details in next newsletter.

South Island

Accommodation: TBA. BOOKING ESSENTIAL. \$100 deposit will be required by 15 November.

Ferry bookings can be made from about 10 April - book early!

Bring bread, butter/marg, scroggin, biscuits and fresh fruit. All other food provided.

EVENTS

1. Matiu/Somes Island tree planting: Sundays 27 May, 24 June, 22 July, 19 August, 16 September. PUT THESE DATES IN YOUR DIARY NOW!!! Free transport on ferry. Ring: Jack Cox 569 5691, or Stan Butcher 567 7271.
2. Wellington Botanical Society Annual General Meeting. See Programme section.
3. Schools Science Fair. 30-31 August 1-2 September.
4. Otari-Wilton's Bush Open Day. Native plant sales, guide tours, displays.

PUBLICATIONS

- 1a. All five volumes of the NZ Flora. \$100. A very attractive offer!!
- 1b. All other Manaaki Whenua Press publications - 20% discount to members of botanical societies. Remember to state the name of your BotSoc.
Manaaki Whenua Press, Landcare Research, Box 40, Lincoln 8152.
2. Otari-Wilton's Bush Trust - News and Views. 2/01. Upper Kaiwharawhara Stream revegetation project; Cockayne's 1929 kauri grove, etc. Otari-Wilton's Bush Trust, Box 12-039, WN 6038.
3. Mushrooms and other fungi of NZ. Don Horne. 2000. 129pp. Paperback. Reed Books. \$14.95.
- 4a. Review of control methods for pampas grasses in NZ. DS Gosling, WB Shaw, SM Beadel. 2000. Science for Conservation 165. 32pp. \$22.50.
- 4b. Weed surveillance plan for the Department of Conservation. H. Braithwaite. 2000. 24pp.
- 4c. Potentially species-variable DNA regions of *Cheesemanina* “Chalk Range”. A Mitchell. 2000. Conservation Advisory Science Notes 317. 4pp. \$3.50.
- 4d. Inventory of NZ's active dunelands. M Hilton, U Macauley, R Henderson. 2,000. Science for Conservation 157. 28pp. \$27.
- 4e. Ecosystem-based conservation strategy for Central Otago's saline patches. G Rogers, A Hewitt, JB Wilson. 2000. Science for Conservation 166. 38pp. \$22.50.
- 4f. Facilitating community-based conservation initiatives. V Forgie, P Horsley, J Johnston. 2001. Science for Conservation 169. 76pp. \$30.
- 4g. Options for managing the Kaimaumu Wetland, Northland. DL Hicks, J Campbell, IAE Atkinson. 2001. Science for Conservation 155. 75pp. \$30.
- 4h. *Hebe cupressoides* recovery plan. 2000-10. DA Norton. 2000. Threatened Species Recovery Plan 33. 20pp. \$15.
- 4i. Department of Conservation's policy statement on deer control. 2/01.
Science Publications, Department of Conservation, Box 10 420, WN.
5. What is the NZ Ecological Restoration Network? NZERN, Box 9000, CH. E-mail office@bush.org.nz Web address www.bush.org.nz Wellington region contact: Annabel Riley, Wellington Conservancy, Department of Conservation, Box 5086, WN. 470 8416. See article in this issue.
6. NZ's native beech mistletoes. Pamphlet. PAMS Dept, University of Canterbury, PBag 4800 CH. www.pams.canterbury.ac.nz/105mtd.htm
- 7a. Pingao on coastal sand dunes - guidelines for seed collection, propagation and establishment. DO Bergin and JW Herbert. 1998. CDVN Technical Bulletin No.1. \$11.25.

- 7b. Spinifex on coastal sand dunes. - guidelines for seed collection, propagation and establishment. D Bergin, Forest Research. 1999. CDVN Technical Bulletin No.2. \$11.25.
- 7c. Sand Tussock on coastal sand dunes - guidelines for seed collection, propagation and establishment. D Bergin, Forest Research. 2000. CDVN Technical Bulletin No.3. \$11.25.
- 7d. Coastal sand dunes - form and function. PA Hesp, Massey University. 2000. CDVN Technical Bulletin No.4. \$14.75.
Coastal Dune Revegetation Network, NZ Forest Research Institute, Ltd, Rotorua.
8. Wildflower City - Wellington, NZ. Photographs by Alan Knowles; text by Colin Webb. 2000. 144pp. Manuka Press.
9. NZ Journal of Botany. Quarterly. Subscriptions: Individual members of Royal Society - \$105; other individuals - \$147. Make cheques payable to Royal Society of NZ. SIR Publishing, Box 399, WN. Order subscriptions on-line at <http://www.rsnz.govt.nz/shop>. Individual back issues: 1999-2000 - \$50 each; earlier years - \$35 each. Volume 39 No.1 March 2001 was published on 14 March.
10. Environmental issues associated with Transmission Gully. John Holmes, Wellington Regional Council, Box 11 646, WN. Ph 384 5708.
11. NZ Botanical Society Newsletter. Quarterly. Subscriptions: ordinary and institutional - \$18, (reduced to \$15 if paid by due date on invoice); full-time student - \$9, (reduced to \$7 if paid by due date on invoice).
Back issues: No.1 (8/85)–No.46 (12/96) @ \$2.50 each.
 No.47(3/97)–No.50(12/97) @ \$3.00 each.
 No.51 (3/98) onwards @ \$3.75 each.
12. Undaria - the alien seaweed that could become the “gorse of the sea”. Pamphlet. Department of Conservation and Ministry of Fisheries.

SYNOPSIS OF SUBMISSIONS

PROPOSED MARINE RESERVE ON WELLINGTON SOUTH COAST “TAPU TE RANGA”

TO DOC, 18-12-2000. **Expressed** support for the proposal and **advised** that our submission had been prepared after consultation with WBS members who are marine ecologists and specialists in marine macro-algae; **mentioned** that marine ecosystems, especially macroalgae, have been the subject of several of our evening presentations, field trips and workshops; **outlined** that since the 1940s the Society has been involved in systematic exploration of the Wellington South Coast, compiling lists of indigenous species and advocating protection of the coastal ecosystems and immediate hinterland because of their intrinsic natural values; **proposed** reserving a “slice” of south coast escarpment, foreshore and submarine area as a natural, vertical continuum which would recognise the essential continuity of terrestrial and marine ecosystems; **questioned** the chosen site for a *scientific* reserve, since it is the most modified on the coastline from Kapiti to Castlepoint; **stated** that in our opinion the *educational and conservation values* are the most important ones in the proposed area because of its accessibility; **suggested** that the reserve’s eastern boundary be extended further eastward to include the entire Te Rae Kaihau reef as proposed in the NZ Marine Scientists Society’s submission; **supported** the reasons advanced by the NZMSS (NZ Marine Scientists Soc.) for this boundary extension and also **supported** their submission in its entirety; **asked** for a second, separate area to be added to the reserve to include the marine ecosystems in the Moa Point - Palmer Head - Breaker Bay -Barrett Reef area; **explained** that these amendments would result in a reserve that better protects the diversity of marine biota and ecosystems of the Wellington South Coast; **commented** favourably on the degree to which the applicants had consulted the community, and on the professionalism of the final proposal.

PROPOSAL FOR REGISTRATION OF THE OLD COACH ROAD, JOHNSONVILLE.

TO: Vivien Rickard, Central Region Manager, NZ Historic Places Trust, 28-2-2001. **supported** the proposal to register that portion of the Old Coach Road from the Owhariu Valley ridgeline to Broderick Road, Johnsonville, and to upgrade the whole of the Old Coach Road to Category 1; **explained** that while the road and its immediate precinct have chiefly historic, rural, open space and landscape attributes, of ecological significance is a roadside, naturally-occurring northern rata *Metrosideros robusta* about 7 metres high and two saplings a little further uproad, which are descendants of the huge northern rata which were notable in the area in earlier times; **added** that the road and its immediate environs have the potential to become an important bird corridor and a useful seed-source for such forest remnants as for instance the Horrobin’s “Huiawa” QEII Covenant in the Owhariu Valley.

MARINE RESERVES ACT REVIEW, “TAPUI TAIMOANA” DOC, 19-2-2000.

Backgrounded the Society’s interest in marine macro-algae, as for the proposed Tapu Te Ranga marine reserve; **commended** the Department for compiling “*Tapui Taimoana: Reviewing The Marine Reserves Act 1971*”, a well constructed, comprehensive document; **responded**, as follows, to a list of set questions: **proposed** that the purpose of the MRA be principally to preserve, restore and protect marine biodiversity and landforms *because of their intrinsic values*; **supported** the suggestion that not only the unique and the rare need protection but also the typical, the ordinary; **cited** the proposed Tapu Te Ranga marine reserve as an example of this; **favoured** creating categories of marine reserves (e.g. historic), additional to the present, single, scientific category; **supported** establishing vertically-integrated terrestrial and

marine reserves, where appropriate, under complementary management; **supported** including historic heritage within the purpose of the MRA; **agreed** that there are at least two cogent reasons why not all marine reserves should be “no-take”, therefore **supported** the Minister having discretion in the matter; **suggested** appropriate controls; **agreed** that iwi be consulted and kept informed right from the earliest stages of developing applications, seeking submissions and evaluating submissions; **agreed** that the MRA extend to include the EEZ and the Continental Shelf, and that when considering objections and evaluating applications for marine reserves, national conservation interests should prevail.

WCC TEN YEAR PLAN - STRATEGIC REVIEW 2000 1-12-2000

“The shape of the city - People, Places, Transport and Trees”: **asserted** that indigenous and predominantly indigenous ecosystems should be top priority for protection and restoration; re “Open Space”: **requested** that revegetation, as distinct from amenity plantings, should use *exclusively* eco-sourced native species, and that the eradication of pest plants which threaten regenerating native ecosystems should be a top priority, as per Wellington Regional Council’s Pest Management Strategy; **recommended** that WCC draft, for public comment, an Indigenous Vegetation Restoration Strategy; **suggested** that WCC purchase, or seek Walkways Act easements over “tenure gaps” in the Outer Town Belt; **recommended** that WCC implement as a matter of urgency, the four goals and their respective targets in the Natural Environment theme of “Our City - Our Future: Strategy for the Future of Wellington”.

APPLICATION FOR RESOURCE CONSENTS/NOTICES OF REQUIREMENT FOR DESIGNATION: “IMPROVEMENTS” TO STATE HIGHWAY 58, (HAYWARDS HILL).

19-1-2001. **submitted** a species list including northern rata, for the two gullies which would be adversely affected.

DOC APPLICATION FOR LAND-USE CONSENT TO HARVEST PINE FOREST IN RIMUTAKA FOREST PARK

To CEO, Hutt City Council, 28-1-2001. **Supported** a discretionary land-use consent to harvest 250 ha of *Pinus radiata* in Catchpool Valley as provided for in Wellington Conservancy Conservation Management Strategy, because (1) it would remove from land managed by DOC, a species which is not native to NZ and (2) is therefore not the responsibility of DOC to protect, and (3) would enable DOC, with community help if available, to begin restoring the site.

SUBMISSIONS CALLED FOR—URGENT !!!

1. Local councils’ annual plans and long term financial strategies. Your local council will soon publish its draft annual plan and LTFS:

WCC - 9 April, submissions by 10 May.

PCC - 17 April; submissions by 25 May.

KCDC - 24 April; submissions by 31 May.

HCC - 11 April, submissions by 18 May.

UHCC - 30 April, or before; submissions by mid-late May - refer to document.

Read the public notices column in the daily and weekly papers for information on public meetings to discuss the drafts. Is your council planning to spend sufficient money on plant and animal pest control, and track construction and maintenance? Is it planning to set aside enough money to purchase land to add to its network of reserves? Is it setting aside enough money to pay for growing locally sourced native species and planting them at revegetation sites?

2. Wellington Regional Council Draft Annual Plan and Long-term Financial Strategy. Publication date: 19 April; submissions by 21 May. WRC, Box 11 646, WN, pf 384 5708.

3. Tongariro National Park - Proposed management plan change to manage large lahar-related events from Ruapehu Crater Lake by allowing limited construction works in Rangipo Desert. Copy of proposal, and submission form from: Greg Carlyon, Department of Conservation, PBag, Turangi, 07 386 9245, or e-mail gcarlyon@doc.govt.nz. Submissions by 1 June.

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

Over the Hill

In this case maybe it should be “Over the Hills”. The past few weeks have seen the boots go over more than a few ridges, and even into a few dark valleys.

I’ve had a chance to follow (probably literally) in Chris Horne’s footsteps, going through some of the fuchsia stands in the Tararua Ranges, with a small amount of time among the herbfields to sharpen the memory and whet the appetite. There is real mountain goat country occupied by these trees, some of the old slips that they have colonised are almost vertical and I know I finished fitter than I started.

Associated plants often included *Jovellana repens* on the bare wet rock near the streams and *Blechnum nigrum* under the forest canopy. Both of these are hardly ever encountered in the milder climes where I’ve spent most of my time, so it was a real pleasure to see them. Another Tararua entity that I’d not seen for years was the relative of hound’s tongue *Microsorium novae-zelandiae*, once described to me as a “great orange scaled beast, unlike anything else” and that’s a pretty good description. It makes an unforgettable sight growing on the mossy silver beech at higher elevations.

All three of the speargrasses, *Aciphylla dissecta*, *A. colensoi* and *A. “Tararua”* were on their best behaviour and didn’t draw even a small drop, but the *Acaena* was another story, and I think that the biodiversity of both the Wairarapa Plains and Wellington might have been enhanced by some of the huge amount of seeds that managed to stick to socks, jerseys and anything else. Maybe the Tararua ones are especially hardy, but it’s only on the Chatham Islands that I’ve ever seen such a furry covering of bidibid.

Ourisia, *Celmisia*, three species of *Chionochloa* and both *Olearia lacunosa* and *O. colensoi* were a grand sight for someone who has spent most of the recent past in the lowlands, but the prize of the day has to go to *Pittosporum rigidum*, a green blob of a bush with hardly any distinguishing features and so unlike all the plants around it that it by default formed a distinctive part of the plantscape.

All those plants, only a bit of cloud to get in the way of the views from the ranges and great company in the hills—we all remember days like that and they keep us going when we are back in town, plotting the next foray!

Tony Silbery

New members

We welcome Heidrun Lehman, Annabel Riley and Valerie Smith.

Percy Reserve News

Kia ora tatou

It’s hard to believe there is a drought in Wellington when you see green all around the hills, but a closer inspection reveals rangiora in dire straits. Consequently a lot of time has been spent watering plants that have never needed it before. Apart from a short period of humidity, the summer has been kind to the alpine collection, and with the flowering season virtually over I have been repotting them with occasional help from several wonderful volunteers. The secret of germinating *Sebaea ovata* was revealed to me by Margaret Auger at Waikato University and after following her instructions implicitly, a green carpet of tiny *Sebaea* greeted me one Monday morning recently. Margaret has also instructed me on how to grow-on this wee plant and I’m trying to lengthen my finger nails so the plants can be pricked out. I’ve sent Margaret seed of *Spiranthes novae-zelandiae* to see if she can germinate this plant as two heads are better than one on these difficult species. Approximately 500 *Olearia gardnerii* from Mataroa have germinated this year and as usual only a few from the Wairarapa. It is interesting that the seed set at Mataroa was exactly a month later than the Wairarapa plants which shows the different climatic conditions. It is disappointing that although the *Discaria toumatou* was smothered in flowers this Spring, no seed has been set. If any of you have any suggestions for the reason for this, I’d like to hear from you.

The resource consent application for the motorway extension through Percy Reserve has been lodged and is available from the Approvals Team at Hutt City Council.

Robyn Smith

Pencarrow Regional Park

Wellington Regional Council (WRC) has made a serious commitment to progress the East Harbour Regional Park. A workshop on 14 March for interested groups and individuals sought opinions. There was strong agreement that the northern area should be included in the park which would then run from roughly Lowry Bay to Baring Head. Beech and mixed broadleaf forest, stream valleys, open pasture and two lakes give a variety of landscapes.

It was agreed that WRC should be the lead agency to co-ordinate development in the whole park where land belongs to Hutt City Council, WRC, DOC and to private property owners. Improved access to the southern area was seen as important but without detracting from the sense of remoteness which is its great appeal. A draft management plan will be submitted for public consultation. There was almost unanimous agreement that the regional park should be named Pencarrow. WRC is prepared to spend significant monies, including the employment of a full-time manager, to realise the long-held dream of a Pencarrow Regional Park.

Stan Butcher

NEW ZEALAND ECOLOGICAL RESTORATION NETWORK

Wellington Region

Over 70 community groups, councils and agencies were represented at recent workshops held in February to kick start the Ecological Restoration Network in Wellington. Out of the workshops came ideas for developing groups' skills in restoration. From these we have organised a series of 'bite-size practical sessions'. These will be a chance to learn skills from experienced hands-on 'restorers'.

The sessions have been supported by the Department of Conservation, Wellington Regional Council, district councils and the New Zealand Ecological Restoration Network www.bush.org.nz/region/wellington.html

Bite-size Practical Sessions

A weed outing! – plant pest practical

To learn tools for combating plant pests from community members, DOC staff and the WRC Biosecurity team. Areas covered include: developing a plant pest management plan, weed species and control techniques (including non-chemical and chemical control), safe use of pesticides.

Venue: Bartons Bush and Moehau Park – Upper Hutt

Date: Saturday 7 April 2001 at 1.30pm

Meet: Meet at Bartons Bush at Holdsworth Avenue entrance, Upper Hutt

Parking: Off-street parking on the reserve available off Brentwood St

Wet feet wind up – waterway restoration practical

Learn about waterway ecology, Maori heritage perspectives and hands-on skills.

Venue: Kaitawa Reserve, Riwai Street, Paraparaumu

Date: Saturday 21 April 2001 at 1.30pm

Meet: Meet 500m along Riwai Street opposite reserve, Paraparaumu

Parking: Parking on Riwai Street

A DIY practical – seeds, propagation and planting!

For those who want to develop their 'hands-on' skills. This session will develop your skills in key areas of seed sourcing, plant propagation, nursery establishment and planting out.

Venue: Matiu/Somes Island

Date: Saturday 5 May 2001, 10.00am from Queens Wharf, Wellington (in front of Dockside) on the Evening Post Ferry, return approx. 4.00pm.

Transport: \$4.00 per head return trip to Wellington (balance sponsored by Lower Hutt City Council). Numbers are limited.

Restoration day – a celebration of ecological restoration in the Wellington Region

A chance to bring together groups in the Wellington region to hear from an inspiring speaker, share a day of practical sessions and catch up with what's happening in Wellington.

- The restoration day is your day, so please come equipped with information on your site, photo boards, maps and any newsletters or updates you have.
- Mike Peters of NZERN (New Zealand Ecological Restoration Network) will be attending.

Date: Saturday 26 May 2001

Venue: Tapu Te Ranga Marae/Manawa Karioi Revegetation Site

Address: Danube Street, Island Bay, Wellington

Time: 10.00 – 3.30pm.

Ring to book with DOC, 472 5821.

Postponements/cancellations – Newstalk ZB 1035 AM on the hour.

Please wear warm clothes and stout footwear.

For further information on the workshops or the network please call Annabel Riley, DOC – 470 8416 / 472 5821 or e-mail: ariley@doc.govt.nz or check out the website: www.bush.org.nz/region/wellington.html

NOMINATIONS DUE

1. Green Ribbon Award. Information and application forms from: Ministry for the Environment, Box 10 362, WN, ph 917 7400, fax 917 7523. Nominations by 30 April.
2. Loder Cup. Information and nomination forms from: Department of Conservation, Box 10 420, WN, ph 471 0726, fax 471 1082. Nominations by 31 May.
3. Conservation Week Award. Information and nomination forms from: Wellington Conservancy, Department of Conservation, Box 5086, WN, ph 472 5821, fax 499 0077. Nominations by 29 June.
4. HH Allan Mere Award

The Award is made annually to a person or persons who have made outstanding contributions to botany in NZ, either in a professional or amateur capacity. It is administered by the NZ Botanical Society. Nominations for the Award may be made by regional botanical societies, or by individuals, to: Secretary, NZ Botanical Society, c/- Canterbury Museum, Rolleston Ave, Christchurch, by 30 June. Nominations must be signed by a nominator and a seconder, and accompanied by two copies of supporting information which must not exceed one A4 page. Selection of the successful nominee/nominees is made by the committee of the NZ Botanical Society, normally within three months of the closing date for nominations.

Plants of conservation concern in Wellington

The rare and endangered scarlet mistletoe (*Peraxilla colensoi*) has been found for the first time near Plateau Stream, above Otaki Forks, in the western Tararua Range. We have no records of the species ever having been recorded in this area before. The discovery was made by Samantha Hughes and identified by David Havell (UCOL) who has been assisting the Department with plant conservation work for a number of years.

The dwarf or leafless mistletoe *Korthalsella salicornioides* has been discovered at several new locations in the Wairarapa, including Green Tops on manuka (Oterei River, Eastern Wairarapa), and several locations on kanuka at Morrison's Bush (Greytown). The mistletoe was also found in Porirua by Otago botanist John Barkla. He found it growing on kanuka at Ivey Bay beside Pua-hatahanui Inlet.

The single and only known plant of *Pimelea tomentosa* found first during a Wellington Botanical Society trip to Craigie Lea (Eastern Wairarapa) could not be found during a survey in February, and is believed to have died. Three seedlings from last year's seed collection are being grown by staff at Otari Wilton's Bush.

Department of Conservation staff, and volunteers Trevor Thompson and Chris Hopkins, found at least 16 new plants of the red-flowered mistletoe (*Peraxilla tetrapetala*) in the eastern Tararua Range at Blue Range, Holdsworth Lookout, Gentle Annie, Waiohine Valley and Carrington Creek.

A new population of matagouri has been found as a 'farm weed' at Tora, in the Eastern Wairarapa. An estimated 2,800 plants in 32 clumps were found of this regionally rare plant, increasing the known Wairarapa population tenfold. The farmer said the species does not appear to spread and only covers small parts (approx. 1.5 ha) of his farm. Most plants are less than 1 m tall, the largest being in a pine forest. All plants were found in 100 ha close to the Tora coast.

Any new discoveries or finds of rare or interesting plant species in the Wellington region may be reported to staff at your nearest Department of Conservation office: Aalbert Rebergen, Tony Silbery, Garry Foster (Master-ton), Dick Gill (Waikanae) and John Sawyer (Wellington Conservancy Office).

Project Crimson – applications for northern rata funding

Project Crimson Trust have announced that application forms are available for this year's round of funding for pohutukawa and rata protection, restoration and research. In the Wellington region that means project funding will be available for northern and southern rata conservation. Applications close on 30 April 2001. The Department has reprinted its regional northern rata strategy and a free northern rata fact sheet that may be of interest or use as you develop new projects. Copies of these are available from the address below. Funding application forms are available on the Project Crimson website: www.project-crimson.org.nz or you can obtain them from me or from the Trust.

John Sawyer

Biodiversity Conservation

Department of Conservation, P.O. Box 5086, Wellington

Tel: 04 470 8427; E-mail: jsawyer@doc.govt.nz

The Koiata Botanical Trust

The Koiata Botanical Trust was established in 1988 with the purpose of making the NZ public more aware of the New Zealand vegetation and flora. The aim was to provide financial support for a botanist to undertake research and to play a role in increasing public understanding of, and interest in, botany.

Since the Trust was set up, it has supported Hugh Wilson's botanical research, and it continues to do so today. In particular, the Trust supported Hugh while he wrote *Small-leaved Shrubs of New Zealand*, and is now funding him while he writes about the botany of Banks Peninsula. Once this is completed, Hugh is planning a guide to NZ grasses and grass-like plants; a project the Trust is keen to support as well.

The Trust depends entirely on interest money from investments made from donations. Current interest rates have made it difficult for the Trust to fully support Hugh's work, and impossible for the Trust to support any other researchers. If you are interested in supporting the Trust, and thus enabling Hugh to continue to produce the popular botany books for which he is now widely appreciated in the botanical community, please look at the enclosed flier. Even small donations are helpful!

Colin Webb, Trustee

Keep Waikanae Beautiful

This group, established many years ago, has been re-activated to improve rural and urban landscapes in Waikanae. It is involved in funding the restoration of Waimeha Lagoon using plants from local nurseries, including Graham and Judy Petterson's nursery near the lagoon. This nursery grows locally-sourced native plants from cuttings and

seed. Volunteers do the planting, weeding and mulching, and Kapiti Coast District Council provides some manual labour, removes rubbish and supplies bark mulch.

Contact: Pam Sinclair, 89 Tutere St, Waikanae Beach 6454. 04 293 1790.

Graham Petterson

EVENING MEETING

Monday 19 February 2001

Speaker: Phil Garnock-Jones: Taxonomy of *Parahebe*

Parahebe is a small genus of subshrubs related to *Hebe* and *Heliohebe*. It is found in New Zealand and New Guinea (recent work shows the Australian, *P. lithophila*, actually belongs in *Derwentia*). Phil's revision of *Parahebe* is one of the objectives of the *Hebe* programme based at Te Papa and is funded by the Public Good Science Fund.

Phil discussed the taxonomic problems in *Parahebe* at two levels. First he introduced us to modern ideas about classification of species into higher level taxa such as genera and families. Biologists now insist that all members of such groups must have their nearest relatives also classified in the same group. This simple requirement poses some problems

for *Veronica* and *Parahebe* because *Hebe* and other genera have evolved within them. Possible alternative classifications were discussed, such as putting all the New Zealand *Hebe* and related genera back into *Veronica*, or enlarging *Hebe* to include all its New Zealand relatives. Phil showed that there are no unique characters that define *Parahebe* - it is made up of the species that are left over when distinctive genera such as *Hebe*, *Chionohebe* and *Heliohebe* are recognised within the New Zealand *Hebe* complex.

Secondly, Phil stressed the importance of testing explicit hypotheses at species level. He described how the process of speciation is rarely observed, but can be inferred by seeking evidence that refutes a "hypothesis of

conspicuity" which is a fancy term for a species identification. Any kind of evidence will do - morphology, genetics, or behaviour - so long as it compels us to reject the conspecificity hypothesis. This is consistent with Popper's definition of science, whereas seeking evidence to support the idea that a collection might be a new species is not. Phil discussed the 18 species he will be recognising in *Parahebe*, following these criteria. In particular, Phil proposes to divide the *Parahebe catarractae* complex as treated in Allan's Flora, into five species. To finish the talk, he showed slides of intergeneric hybrids between cushion-forming *Chionohebe* species and *Parahebe trifida*, *P. birleyi*, and a new species related to them.

TRIP REPORT

Saturday 16 September 2000: Ngawihi, South Wairarapa

BotSoccers and Department of Conservation staff visited Te Kawakawa Rocks near Cape Palliser, to rediscover some of the tiny, rare, annual, native plants previously seen in the area.

Several BotSoccers stayed on Friday night at the DOC cottage at Te Kopi, an excellent base for field trips.

The 3 plants of most interest on this trip were *Isolepis basilaris*, *Myosurus minimus* ssp. *novae-zealandiae* and *Myosotis pygmaea* var. *minutiflora* and *M. pygmaea* var. *pygmaea*.

All appear in early Spring, complete their life-cycle and disappear in early Summer, so timing the search was important. First, we studied photographs of 2 of the plants and at a potted specimen of *Isolepis basilaris* brought by Robyn Smith from Percy

Reserve. We discussed them and where we might find them, then Geoff Rogers led the search. He is a DOC plant ecologist from Dunedin who had seen *M. pygmaea* var. *minutiflora* here years ago. We climbed a low beach ridge of small gravel, spread out, and began searching. Looking around this huge area of coast I had the fleeting thought that finding such tiny plants would be difficult. Geoff relocated a rock he had placed as a marker 10 years ago, but said that there were now no *M. pygmaea* there. He came back up the ridge, and pointing excitedly, called out, "Here it is!". We then crawled along the ridge and found more *M. pygmaea*, including several copper-coloured ones.

We marked each group with a peg and aluminium tag. Geoff then put a 1m grid square over the pegs and recorded the number of plants

and their position within it.

We searched all the suitable habitat, then descended to the lower beach level to look for some of the other target species, but without success. We found several patches of *Leptinella pusilla* and noted that it is much less abundant here now.

We returned to near where our cars were parked and found many more *M. pygmaea*, bringing our total to about 300 plants.

Geoff commented that this site was a very significant find because it was one of only two in the North Island and has many more individuals than other sites he had seen.

We thank the landowners for allowing us access, and everyone involved on the day.

Garry Foster
Masterton Area Office
Department of Conservation

TRIP REPORT

27 December 2000–7 December 2001: Southland

This combined trip for Wellington and Otago Botanical Societies was based at Borland Lodge, on the eastern boundary of Fiordland National Park, between Lakes Manapouri and Monowai. The weather was as diverse as the botany and the botanists, ranging from skiffs of snow on Mt Burns to 30° C in Invercargill.

We regret that we have had to abridge these reports. They have just appeared in NZ Botanical Society's Newsletter No.63, March 2001, where you may wish to read the full versions. We thank Paul Hughes for help with transferring computer files. Ed.

Days 1 and 10: Pukerau Red Tussock Reserve, "Burwood" Tussock Reserve and Redcliff Wetland Reserve

At first sight the remnant lowland plant community in Pukerau Reserve looked to be mainly red tussock (*Chionochloa rubra* ssp *cuprea*) and wire-rush (*Empodisma minus*). On closer inspection we found several species of orchids in flower. Bastow's revelation that the peat was over 6.5m deep here, the deepest measured in Otago, and his question as to whether the *Sphagnum* or the *Empodisma* was the main peat-forming organism in NZ bogs was food for thought for the rest of the trip. A highlight for me was finding several lichenised *Omphalina* in fruit. They are among the few lichens from the class Basidiomycetes, or toadstool fungi.

"Burwoods" Reserve, is just west of Mossburn, by the road to Te Anau. This montane hillside tussock community also contained a variety of orchids and many clumps of *Aciphylla glaucescens*, with striking blue-green foliage and tall yellow flower spikes.

At Redcliff Wetland Reserve ponding has been re-introduced as a sanctuary for wildlife. Arne Cleveland's Pukerau nursery, has many native plants to admire and covet.

Allison Knight

Day 3: Kepler Mire and Borland Bog

The botanical day began at Manapouri airstrip where Prof Alan Mark described the structure and features of Kepler Mire, part of the South West World Heritage Area. This gently sloping mire is raised 6m and is surrounded by a natural drainage channel (or lagg). The whole ecosystem is protected, in contrast to Borland Mire.

The lagg, which has relatively fertile soils, had a cover of pasture grasses and sedges, several "hedged" of introduced broom, and a scattering of *Coprosma* (*C. propinqua*, *C. "tayloriae"*, *C. intertexta*). One plant of the unusual native grass, *Deschampsia caespitosa*, attracted our interest.

On the mire, wire rush (*Empodisma minus*), manuka (*Leptospermum scoparium*), and *Dracophyllum oliveri* dominated. Other

plants included *Androstoma empetrifolia*, with its pretty red fruit, *Pentachondra pumila*, and two sundews, *Drosera binata* and *D. spathulata*. The common, swamp sun orchid, *Thelymitra cyanea* was in flower everywhere, despite the heavily overcast conditions.

On the way out some botanised a small manuka-covered moraine that stood above the level of the mire, and almost doubled their number of species. Of interest here were two ferns not seen before on the trip - Adder's Tongue, *Ophioglossum coriaceum* and *Blechnum vulcanicum*.

After stopping at the Mararoa control structure, where Alan Mark explained the recent history of the area in relation to the Manapouri hydro-scheme, we went to Borland mire. Here Bastow Wilson explained the different structure of this mire. It had many of the same plants as the Kepler—one notable addition was the beautiful blue bladderwort, *Utricularia novae-zelandiae*.

The last area of particular interest was the edge of the mire, where bush was re-establishing among the bog pine (*Halocarpus bidwillii*). Some of the colonisers were mountain threefinger (*Pseudopanax colensoi*), lancewood (*P. crassifolius*) and elder (*Sambucus nigra*). On the ground were several flowering herbs including the little blue lily *Herpolirion novae-zelandiae*, and the white-flowered *Oreostylidium subulatum*.

Gael Donaghy

Day 4: Manapouri, Hope Arm and Back Valley

The organising committee had arranged a wonderful New Year's Day—various combinations of boating across and walking beside beautiful Lake Manapouri. From Manapouri some went by launch to Hope Arm to walk back, while others crossed the Waiiau by ferry. Some walked to Hope Arm and boated back; some walked the long loop: Manapouri–Back Valley–Hope Arm–Manapouri; and some did various walk-in-and-back options.

My group walked to Hope Arm via the Lake track. We enjoyed pleasant walking conditions by the river and the lake, and over an extensive boardwalk system. We walked through beech forest, mixed with a great variety of other vegetation. The appearance of the beech forest varied. Sometimes the floor was thick with *Blechnum* ferns; sometimes it was a vast humpy field of mounding moss; sometimes there was a thick cover of beech saplings and sometimes the floor had a rich variety of other shrub and tree species.

The 3-wire bridge and the rotten-log-bridge were a challenge, but we reached the Hope Arm Hut to catch the boat at 4pm. The wind had risen, so instead of embarking at the usual place, we had to sidle round the lake

shore to a more sheltered cove, where the boat could beach safely. The white-capped lake gave us a very bumpy ride back to Manapouri, between steep-sided hills dropping straight into the water, around islands splashed with red rata, and then slowly up the broad dark water of the Waiiau River.

For me, the highlights of the day were more touristical than botanical, but others listed these botanical highlights:

Val: Lots more orchid species than expected.

Moira: The tall *Plagianthus*, kowhai and kaikomako in the grove.

Ros: The large areas of 'mounding mosses' under the beech trees.

Several: The 3-wire bridge!

Chris H: *Aristotelia fruticosa* (shrubby or mountain wineberry); *Meliccytus flexuosus* (leafless porcupine plant) - a strange plant, with variable leaves; the variety of bush in the various understories; a 20m+ *Plagianthus regius*; 18m *Cordyline australis*; *Alepis flavida* (yellow mistletoe) in mountain beech, on the way down to the jetty.

Allison: Finding the newly named *Coprosma pedicillata* (= *C. "violacea"*), just as Neill Simpson predicted we should.

Jill Goodwin

Day 5: McKercher Stream

After a brief introduction to the area from our guides for the day, Brian Rance and Geoff Rogers we walked across pasture in drizzle towards distant shrubland in the Takitimu foothills. In the first part of the sparse shrubland area stock were still grazed. It was dominated by *Coprosma propinqua* and as a result we were treated to rich turf communities containing many introduced species, but also a wide selection of native herbs including *Mazus radicans* (in flower), *Nertera setulosa*, *Hydrocotyle* species and *Centella uniflora*. The denser remnants contained orchids such as *Pterostylis areolata*, still in flower and as we approached the rear of the grazed area we saw the first of the special plants. These included *Coprosma virescens*, *Plagianthus regius* and *Olearia fragrantissima*. Several stops were made to explain the history of the area and theories on the history of the vegetation.

At the main valley stand we were suddenly in dense shrubland dominated by *Olearia fragrantissima*, kowhai, broadleaf and *Coprosma virescens* with emergents of *Plagianthus regius*, matai and huge lemonwood (stems nearly 2 m in diameter). Near the lunch spot there was evidence of past logging of small totara. It seems that the area was once rich podocarp forest, lacking in beech which had been disturbed 150 or so years ago (giving rise to the small totara and then

logged perhaps 50-80 years ago).

From here the party divided, some returning to the vehicles and the remainder climbing to about 750m to see *Hebe annulata* in the formerly-grazed shrublands. Enroute a wide variety of alpine herbs were noted, the most ubiquitous being the strong smelling *Gingidia decipiens* and the spiny *Aciphylla aurea*. Others of interest include *Schizeilema nitens*, the bronze *Celmisia traversii* and *Anisotome haastii*. At the saddle the party split again - some returned by an easier route - most climbing a long ridge route home. New plants recorded here included *Hebe hectori*, *Kelleria dieffenbachii*, *Pimeleapseudolyallii*, *Myrsine nummularia* and hybrids of *Coriaria sarmentosa* and *C. angustissima*.

Graeme Jane

Day 6: Clifden Limestone

On a lovely Southland day we botanised two limestone areas near historic Clifden Bridge. Beyond the golf course the fun started! Led by two intrepid pathfinders, we bashed round the base of the limestone bluff seeking a way up. Ferns at the base of bluff included *Blechnum chambersii*, maidenhair (*Adiantum cunninghamii*), hen & chicken (*Asplenium bulbiferum*). The botany was interesting without being too exciting, but near a more open, seasonally wet area, species numbers and variability increased, with several orchids and a small *Raukaua simplex* seen.

One group walked along the fence to get on to the escarpment. This was mostly beech with an interesting understory of sedges and ferns, *Blechnum discolor* being particularly common. We descended outside the fence where we saw the mistletoe *Tupeia antarctica* on ribbonwood (*Plagianthus regius*) and *Ileostylus micranthus* on mingimingi (*Coprosma propinqua*), perhaps protected from possums by the isolated position of the trees. We saw a very large *Myrsine divaricata*, a fine *Coprosma rubra*, and some *Olearia fragrantissima*.

After lunch we climbed to the private bush above the river. The feature here was the presence of *Olearia hectori* and *O. fragrantissima* - seeing them together reinforced the difference between them, *O. fragrantissima*'s zigzag branches being the main determinant. We saw *Tupeia antarctica* on one of the *O. fragrantissima* trees. A large *Aciphylla subflabellata* in flower was noteworthy, as was a plant of the rare sedge, *Uncinia strictissima*. We were concerned to see an exotic *Sedum* sp., growing on limestone ledges, and took a specimen for identification.

Some of the group went down to the beech forest beside the river where several *Gastrodia cunninghamii* plants were in full flower, their perfume permeating the air. Some people could not detect the perfume, others thought it delightful, and others found it cloying and unpleasant. On the river edge we admired a lovely southern rata tree (*Metrosideros umbellata*) in full flower.

Pat Enright

Day 7: Dean Forest and Giant Totara

A much smaller group visited Dean Forest/Dean Burn and Motu Bush, because a brilliant blue sky that morning, something we had not seen all week, drew a break-away group up to the alpine pastures of Mt Eldrig.

At Clifden, we took the road toward Lake Hauroko, then went north towards Lake Monowai, along the route of the old coach road to the lake. Today the road ends at the giant totara reserve.

Dean Bush luxuriantly covers the surrounding, low-lying hills. The area of interest for us was the bush margin and the wetland in it. At the bush margin, most noticeable were several large specimens of weeping matipo, *Myrsine divaricata*. This for me was the plant of the week and I have not before seen such large mature trees. Interesting *Coprosmas* included *C. 'tayloriae'* *C. walli*, *C. obconica* and some stunning *C. rubra*. In view these divaricating shrubs somewhat differently since I heard a visiting Botanical Society of Otago speaker expound (and demonstrate - his mimicry of a browsing moa was impressive) his theory that the divaricating habit of these species is a survival mechanism against ravaging ratites! Of the grasses, *Hierochloa redolens* was most memorable, with its sunlit, golden glumes.

Brian Rance kindly sent the following summary of the wetlands:

"The *Carex* sedge land was generally dominated by *Carex sinclairii*, with some *C. geminata*, *C. secta*, *C. maorica*, *C. tenuiculmis* (status -vulnerable), spike rush (*Eleocharis acuta*), *Coprosma* sp. aff. *intertexta* and occasional herbs including *Epilobium pallidiflorum*, *Bulbinella angustifolia*, *Potentilla anserinoides*, *Celmisia graminifolia* and others. The grass *Deschampsia caespitosa* (status -vulnerable) has also been recorded though we didn't see it there! Other parts of the wetland were dominated by red tussock or flax."

The day ended with the giant totaras, *Podocarpus hallii*. They were truly awesome, the largest ones I have seen. It took seven of us linking hands to surround one. There are just three (I think) left of these forests giants. How and why they were left makes for interesting speculation. The area was boardwalked which protected the tracks. It is a pity that the giant totaras weren't so favoured. It was sad to see where the outer layers of bark had been stripped off their lower trunks. Memorable too was the blood red trunk of a nearby matai, *Prumnopitys taxifolia*. Audrey Eagle took a stunning slide of this, which she showed at the March BSO meeting, along with other visual treats from the summer trip.

Robyn Bridges

Day 7: Eldrig Tops

Fourteen renegade members forsook the flatlanders botanising option and headed for the tops around Eldrig Peak this sparkling day. We reached the Eldrig Tops track from the pylon road after leaving the main road in the South Branch of Borland Burn. We began

climbing from the carpark at 560m through a diverse shrubland; the aftermath of clearings under the pylon line. Here Gael showed us the differences between two blue sun orchids, *Thelymitra pulchella* and *T. cyanea*, which are outwardly rather similar.

After critical appraisal, *Raukaua* (= *Pseudopanax*) *edgerleyi* quickly became *R. simplex* in all its guises. Similarly, *Olearia lacunosa* transmogrified into a very faintly-toothed *Pseudopanax crassifolius* (lancewood) that at higher altitudes revealed itself to be unequivocally *P. linearis*! Learned botanisers, beware. The leached, gley soil over coarse, crystalline granite rock meant that some species took on unfamiliar growth forms.

On reaching the first saddle the bush had a quasi-'gremlin forest' look, a further reflection of the thin layer of peat over basement rock and a perched water table. The 8m high canopy of *Dracophyllum longifolium*, interspersed with *Halocarpus biformis* (pink pine) and mountain beech, was pierced by emergent wannabe 'cedars': giant *Leptospermum scoparium* (manuka) emulating round-topped kaikawaka. Throughout this zone the flowering mistletoe *Alepis flavida* was abundant on mountain beech at all storey levels.

From the forest we broke out among granite tors nestled in their gritty sandpits. Here the common 'small's' were struggling - *Pentachondra pumila*, (a dwarf heath), *Dracophyllum pronum*, *Oreobolus* sp. (alpine sedge), *Styphelia empetrifolia* et al. Views from the tors out across the saddle revealed a 3-4 metre canopy mosaic of open tree and shrubland dominated by pink pine and mountain beech. Of the tussocks, *Chionochloa rubra* held sway here.

The bogs in the saddle were crowded with the cushion mat, *Donatia novae-zealandiae*, the mat sedges, *Oreobolus stricta* and *O. pectinatus*, the beautiful narrow-petalled sundew, *Drosera stenopetala* and the wee pygmy pine, *Lepidothamnus laxifolius*. A streamside garden displayed bouquets of *Celmisia coriacea* and *C. petrei* nestled in a pretty setting and flanked by the red mid-ribbed *Astelia nervosa*, the robust pineapple scrub *Dracophyllum menziesii*, bright green *Hebe odora* bushes and the yellow-flowered alpine daisy *Dolichoglottis lyallii*, all underpinned by a carpet of tangle fern, *Gleichenia dicarpa*. Here and there the bog twinkled with the white flowers of *Oreostylidium subulatum*.

Beyond the treeline the curly-topped *Chionochloa teretifolia* dominated. *Caladenia lyallii*, (ahh that beautiful gland) was everywhere in flower. (Ian St George notes that NZ's first collection of *C. lyallii* was from Otago, by Dr David Lyall, surgeon on the *Acheron*. Well ordered 'mini pineapple plantations' of *Celmisia lyallii* spiked the tussock land but many showed evidence of a 'harecut'!

At about 1200m the granite tors outcropped again; huge jumbled dice sculptured into fantastic shapes, many with basins of fresh water notched into their flanks. Craig

Potton, eat your heart out. And now a whole new suite of plants appeared: *Geum uniflorum* with its large buttercup-like white flowers, *Ourisia sessilifolia*, sprawling *Celmisia walkeri*, brown furry-edge-leaved *C. traversii*, the semi-woody branched and trailing *C. ramulosa*, whipcord *Hebe hectori* and mossy cushions of *Chionohebe thomsonii* and *C. ciliata*. The surrounding granite sand desert was studded with jewels of white-flowering *Hectorella caespitosa* and contrasting red-tinted *Luzula rufa*.

Some of the party then headed for the grand views from the higher Eldrig Peak main ridge, while others drifted away down to the large tarn tucked under Eldrig's eastern slopes. Highlights here were *Aciphylla pinnatifida* with its bright orange bracts and yellow leaves poking out from snow groomed tussocks and seeps. Evident, too, were the succulent-like leaved *Euphrasia integrifolia*, the clumpy *Aciphylla crosby-smithii* and a stunning *A. congesta* cascading over a bank and topped with crowded flower heads. Other gems included *Gentiana montana* displaying pink-striped white petals, *Celmisia* sp. flowering in profusion and *Ranunculus lyallii* popping its white flower heads out of the tussock on all sides.

Scenically and botanically the day provided a glorious eyeful for all of us. Comprehensive species lists of vascular plants were compiled by Graeme Jane and Gael Donaghy, with the able help of Southern Botanic Man Geoff Rogers.

Les Moran

Day 8: Otatara

The day, I was told, was a typical Southland day, calm and hot 26-30° C. Our destination was Otatara, Invercargill, with three sites of botanic interest to explore.

Bushy Point Boardwalk was a delight. Ian and Jenny Gamble have protected their forest with a QEII National Trust Covenant and created a boardwalk through tall forest, manuka shrubland, wetland and estuary rushland. This area was once grazed, and since this stopped 10 years ago, and 800 possums and 80 wild cats killed, regeneration has been considerable. The boardwalk was constructed because very high tides enter the area, occasionally almost to the home.

Forest plants seen included *Pseudopanax colensoi*, *P. crassifolius*, *Elaeocarpus hookerianus* (pokaka) *Coprosma grandifolia*, *C. rotundifolia*, *C. foetidissima*, *Melicytus lanceolatus*, *Astelia fragrans*, *Podocarpus totara*, *P. hallii* and hybrids, *Fuchsia excorticata*, *F. perscandens* and *Fuchsia* hybrids, *Aristotelia serrata*, *Dacrydium cupressinum* (rimu) and *Prumnopitys taxifolia* (matai). The ground cover was largely *Microsorium* (= *Phymatosorus*) *pustulatum*, *Astelia fragrans* and numerous seedlings of *Parsonia capsularis*, the native jasmine.

Nearer the sea, the scrubland consisted largely of *Leptospermum scoparium* (manuka) on which was found the tiny dwarf mistletoe,

Korthalsella salicornioides. Also present were *Coprosma propinqua* with the green mistletoe *Ileostylus micranthus*, and *Plagianthus divaricatus* (saltmarsh ribbonwood).

Towards high tide mark were the rare, spiky hair-grass, *Deschampsia caespitosa*, and the introduced tall oat grass *Festuca arundinacea*, both in flower. *Leptocarpus similis*, the jointed wire rush, was very abundant. Saltmarsh herbs found included the coastal turf plants, *Selliera radicans* and *Samolus repens*, as well as the native celery or shore parsley, *Apium prostratum*.

Bushy Point illustrates very well the lowland coastal zonation from forest to manuka scrub to salt marsh. A highlight was a very close encounter with a very curious fernbird.

The next visit was to Brian and Chris Rance's Southland Threatened Plant Garden nearby. Brian is a botanist and Chris a horticulturalist and both have a passion for NZ flora. This garden is their hobby. It was a rare privilege to see, without the effort of strenuous field work, all these rare and beautiful plants. They included *Clianthus puniceus* from East Cape, *Pittosporum dallii* from Nelson, the native brooms *Carmichaelia* (= *Chordospartium*) *stevensonii* and *C. muritai* from the top of the South Island, *Acaena rorida* from the Kaimanawa Ranges and *Hebe speciosa* from Nelson and Northland.

Threatened plant Garden

Special Southland plants included *Olearia hectori* and *O. fragrantissima*. Among the threatened grasses and sedges were *Deschampsia caespitosa*, *Carex tenuiculmis* and *Chionochoa spiralis*. Rare and threatened shrubland plants included *Pittosporum obcordatum*, *Melicytus flexuosus*, *Teucrium parvifolium* and *Helichrysum dimorphum*. Coastal plants seen were *Gunnera hamiltonii*, *Euphorbia glauca* and *Lepidium oleraceum* (Cook's scurvy grass).

Other plants seen, some from offshore islands, were *Myosotis capitata*, *Brachyglottis stewartiae*, *Pratia avencinia*, *Aciphylla dieffenbachii* (soft, not spiky), *Geranium traversii*, *Muehlenbeckia ephedroides*, *Carmichaelia astonii*, *Uncinia strictissima* (very rare), *Brachyglottis compacta* and *Pimelia crosby-smithii*, with flowers smelling like honey. A highlight was a treat of sausage rolls from Chris and scones again from Jenny Gamble, plus a handful of seeds of *Aciphylla dieffenbachii* for each of us to try and germinate.

Otatara Reserve

The third site visited was Otatara Scenic Reserve. Otatara is based on an ancient sand-dune system up to 6000 years old. The reserve is in an urban setting, and consists of a coastal totara and totara-matai dominated forest, in the middle of which is a wet area largely made up of manuka. It is managed by the Invercargill City Council and has a good standard track. Parts of the reserve are heavily infested with weeds, notably Chilean flame creeper, blackberry and sycamore.

Plants noted were *Podocarpus totara*, *P.*

hallii and hybrids, *Dacrydium cupressinum*, *Prumnopitys taxifolia*, *Dicksonia fibrosa*, *Myriophyllum triphyllum*, *Coprosma lucida*, *C. foetidissima*, *Pittosporum tenuifolium*, *Pseudopanax arboreus*, *Pseudopanax colensoi* and clumps of *Astelia fragrantissima*. Everyone remarked on the very large size of the leaves on all the broadleaved forest trees.

Dr Carol West, Conservancy Advisory Scientist, Invercargill, accompanied us for the day and was a great source of information. We appreciated her being there. Quote of the day "It's hard to tell the totaras apart, but we do know that they are totary different".

Joyce Wilson

Day 9: South Borland Burn Track

The last afternoon excursion of the trip was kindly led by David Moss (Riverton, DoC, who reassured us by saying that he regularly took primary school children down these bluffs and he hadn't lost anyone yet!

At the top of the track from the Borland Saddle road we found a cluster of *Aporostylis* orchids flowering in a small, mossy hollow. Soon we crossed the fault line from the Eldrig gneiss down into the forested limestone bluffs. This limestone is unusual as it consists of small rounded granite pebbles loosely cemented into the limestone, and is very crumbly.

Growing near the limestone in this area of higher fertility was a stand of totara and also several southern rata (*Metrosideros umbellata*). The path descended through mossy mountain beech forest with attendant yellow-flowered mistletoe (*Alepis flavida*) then down along mossy silver beech river flats with the flowering, large-leaved red mistletoe (*Peraxilla colensoi*), high above in the 'possum cafes'. We noticed the meal remnants below on our path!

Ros did a great beetle impersonation in one of the slippery small streams we had to cross – she was rescued by Sir Tedword. Since it was the last day the botanising had become a little sporadic, but lichening was avid to the last. Some of the party also noted mohua (yellow heads) calling in the tree-tops, and a unusually large number of slime-moulds, both yellow and white, were noticed beside the lower track. Back at the Borland Nature Walk an arrow scratched in the ground alerted us to one last treat, the tall, sweetly scented flower of the unusual orchid, *Gastrodia*, that has no leaves or chlorophyll, but gains energy through a fungus that is parasitic on tree roots.

Saskia Wood

Day 9: Green Lake Landslide, Fiordland.

This landslide is believed to be the largest of its type on earth. Because of the lush growth of forests in Fiordland the landslide was disguised and it was not until 1976 that a geologist, Roger McPherson, recognised it as such. In 1994 it was fully documented by GT Hancox and ND Perrin.

We appreciated the immensity of this 9km long landslide from high on Mt. Burns,

in the Hunter Mountains. The valley floor is covered by a series of rounded and pyramid-shaped bush-clad hills of fallen rock, between which were large boggy areas and tussock grassland. It covers 45 square km, filling the valley to a depth of 800 m with some 27 cubic km of rock debris, comprising semi-intact blocks.

The original large lake was filled and new lakes formed, the largest being Green Lake in the south. In the north is Pyramid Lake. Island Lake is in the centre of the valley. Water from the original lake flowed south to Lake Monowai, but this exit was blocked and the flow reversed, and now the catchment flows north into Lake Manapouri.

This catastrophic collapse of a substantial part of a high mountain range occurred when the glaciers were retreating between 12,000 and 13,000 years ago. Geologists have found that the land broke away along a fault zone because it had been undercut by a glacier and was no longer supported by it. The final trigger was probably a large earthquake on the Alpine Fault off the coast of Fiordland.

This dramatically changed landscape is truly inspiring. And one doesn't have to climb a mountain to see it, as the 12 km road from the Lodge climbs to Borland Saddle from whence a good view of part of the valley can be seen.

Reference

Hancox, GT, Perrin, ND. (1994) Green

Lake Landslide: A very large ancient rock slide in Fiordland, NZ. 7th International IAEG Congress, Balkema, Rotterdam. pp 1677-89.

For more information e-mail:

g.hancox@gns.cri.nz, and for stunning aerial colour photos of the landslide see: http://www.gns.cri.nz/earthact/land_stab/greenl.html

Audrey Eagle

While climbing Mt Burns on Day 2, and again from Borland Saddle on Day 9, we saw far below us an immense tussock basin, with tarns mirroring the steep, forested slopes above. A hairpin road led to the start of a short track through silver beech forest, grading at the margin into small-leaved *Coprosma* species. Here we looked out over a sea of red tussock with hebes scattered on the drier, rounded hillocks, and all around, the forest inversion line very distinctly drawn. We spread out, squelching over this unique landform, some bent to the ground botanising and some bent on botanising the biggest tarn while having their first swim of the year. Ted found a *Myosotis* in the process.

A very striking *Ranunculus* with jet black, hairy stems was in flower beneath the tussocks. I believe it to be *R. multiscapus*. Further south and on a slightly higher level were sphagnum tarns with spectacular colours, fringed by silver beech and wet-loving shrubs such as the dainty, sprawling *Dracophyllum*

(*prostratum*?) and a pale green, "tousled" tussock which I believe is *Chionocholea crassiuscula* subsp. *torta*.

A population of flowering *Olearia* shrubs puzzled us then and later, when, with microscopes, we tried to identify it. Graeme was certain it was *O. bullata*, but Pat and I couldn't see why, since it didn't have bullate leaves. Afterwards we had to agree with Graeme because it didn't key out to be anything else, and bullate leaves are not, after all, a key characteristic.

Barbara Mitcalfe

Participants: Ted Abraham, Palmerston N; Margaret Aitken, Hutt Valley; Tony Aldridge, Christchurch; Beth Andrews, Eketahuna; Sue Bennett, Te Anau; Barbara Beveridge, Wellington; Peter Beveridge, Wellington; Robyn Bridges, Dunedin; Mary Bruce, Dunedin; Barbara Clark, Plimmerton; Gael Donaghy, Tauranga; Audrey Eagle, Dunedin; Pat Enright, Ngaio; David Glenly, Christchurch; Ian Goodwin, Wellington; Jill Goodwin, Wellington; Chris Horne, Wellington; Ros Iles, Wellington; Rick Jackson, Christchurch; Graeme Jane, Tauranga; Allison Knight, Dunedin; John Knight, Dunedin; Robin Knight, USA; Beatrice Lee, Southland; Rory Logan, Dunedin; Alan Mark, Manapouri; Keith Mayhill, Tauranga; Pauline Mayhill, Tauranga; Lyne McFarlane, Invercargill; Julie McLintock, Nelson; Barbara Mitcalfe, Wellington; Les Moran, Nelson; David Moss, Riverton; Moira Parker, Dunedin; Brian Rance, Invercargill; Chris Rance, Invercargill; Mary Robertson, Palmerston N.; Geoff Rogers, Dunedin; Emil Schmieg, Eketahuna; Tui Slade, Invercargill; Rosemarie Smith, Gore; Val Smith, New Plymouth; Nola Walker, Dunedin; Carol West, Invercargill; John Whitehead, Te Anau; Bastow Wilson, Dunedin; Joyce Wilson, Wellington; Saskia Wood, Wellington.

The following report will appear in the next issue:

Day 2: Mt Burns and road to South Arm, Manapouri – Beatrice Lee.



Green Lake landslide. Photo: Barbara Mitcalfe.

Conservation Information Centre

Government Buildings, Lambton Quay

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Department of Conservation
Te Papa Atawhai

TRIP REPORT

Wellington Anniversary Weekend, Saturday 20–Monday 22 January 2001: Horowhenua

Saturday: Pakipaki Dune Forest

Described as the only true forest remnant in the area and recognised as an area of special botanical interest, the forest is situated on a 20m high parabolic dune between Lake Horowhenua and Waitakere pine forest. Some other dunes in the vicinity have virtually monotypic kanuka forest, but Pakipaki retains a whole suite of species representative of earlier times. (Adapted from CC Ogle, C.A.S. Notes 145, 1997. Department of Conservation).

Among emergents we noted matai, rewarewa and totara, and in the lower canopy, narrow-leaved maire was a surprise among large kowhai and kaikomako. *Korokia cotoneaster*, *Coprosma rhamnoides*, and *C. crassifolia* were prominent in the understorey.

We thank the Wirihihana Trust for giving us permission to visit this remarkable dune forest, and Wally Dyson and Peter Kora for providing transport for the party to the site, and guidance during our visit.

The forest is recovering from browsing and trampling, thanks to the work of the trustees who have fenced it and poisoned the possums.

Saturday pm: Prouse Scenic Reserve

This impressive remnant in southern Levin is in a seriously degraded state. Wandering willie is widespread, several other pest plant species are common, and robinia trees vie with karaka, miro, rewarewa, tawa, titoki, totara etc, for space in the canopy.

Horowhenua District Council has a huge backlog of work to do, in consultation with the Department of Conservation and Forest and Bird, to restore this gem. Its 2001–2002 Annual Plan should allocate funds to start this work.

Chris Horne

Sunday: Hokio Dunes

With access approved by the Hokio Trust and by Les Jacob, we lurched over a lumpy track then walked about an hour over old dunes to arrive at an un-named lake where in the distance we saw Royal Spoonbills. Curious cattle were far too interested in us to permit botanising here but we did sight *Potentilla anserinoides* in the deeply pugged lakeside turf. A little further on we found more turf plants including *Glossostigma elatinoides*, *Ranunculus gracilipes*, *Pratia perpusilla* and *Triglochin striatum*. Later, in the dunes, occasional patches of *Spinifex sericeus* in flower and one patch of *Carex pumila* with its attractive, conical seed heads were highlights among the predominantly exotic pasture grasses and weed plants such as pampas. Julia White found the first *Coprosma acerosa*, and in a nearby blowout, Sue McIntosh spotted several *Pimelea arenaria* in flower, half buried in sand. Soon after, we found what we were hoping for - a slightly damp patch surrounded by *Apodasmia* (= *Leptocarpus*) *similis*, and nestled in it a small patch of *Mazus novaezeelandiae* in flower. We have since had confirmation of this as *M. n-z* subsp. *impolitus*, newly distinguished from *M. n-z* subsp. *n-z* by having dull, (i.e. “not polished”) leaves, with usually a brown, marginal band. Its status is described as vulnerable, (Cameron *et al*, 1995) (P.J. de Lange, pers. comm.) in an article by Peter Heenan in *New Zealand Journal of Botany*, 1998, Vol. 36, pages 407–416.

Barbara Mitcalfe

Monday: Waiopahu Reserve – a time warp

Seventy-five years before the Wellington Botanical Society’s and the Levin Native Flora Club’s combined visit to Levin’s Waiopahu Scenic Reserve, the *Horowhenua Chronicle*

urged tourists to see the reserve. Close to the Tararua foothills and east of the Queen Street intersections with both SH1 and SH57, this 9ha reserve is important as the only significant remnant of intact indigenous forest on the Horowhenua plain.

Even in the 1920s, its value was recognised. “Visitors will be well repaid in a visit to the Waiopahu Scenic Reserve which besides many other splendid specimens of our native trees, possesses what is believed to be the largest rata in the Dominion, a forest giant measuring 13 feet through,” reported the *Chronicle* on 28 January 1926. Neighbour George Gimblett, who remembers the rata standing, estimated its circumference at 37 feet. The native trees, some estimated to be hundreds of years old, include tawa and pukatea, and a fallen giant pukatea near the rotting rata stump. We noted that they were unusually clear of epiphytes. The reserve is also a reference site for the giant land snail, *Powelliphanta traversii*. We saw 2 empty *Powelliphanta* shells.

A wonderfully lush and hushed place to visit, with the height of the old-growth trees giving it the feeling of a cathedral, its integrity is under threat from many quarters. It is the subject of concern and lobbying from the local branch of Forest and Bird because of the proliferation of exotic creepers and particularly sycamore seedlings on the northern boundary. In recent years, inappropriate native species (e.g. pohutukawa, Ed.) were planted on the northern boundary, where incidentally the weeds are worst, to “beautify” the reserve.

Other threats include adjacent subdivision, dog walkers, predators, and exotic plant invaders. The Horowhenua District Council is drawing up a management plan for the reserve but as yet has no policy on lifestyle subdivisions encroaching on its southern (and likely soon) western

boundaries. The boundary fences are merely post and wire farm fences.

Council staff are considering banning private gates into the reserve but do not appear to have given much thought to creating a buffer zone or to requiring developers to build strong fences to keep out stock and domestic pets.

The walking of dogs is theoretically banned, but not enforced. Dogs (and human visitors) often go off the paths, endangering plants and snails. The council intends to spend about \$3000 delineating paths, installing seats and erecting signs asking people to keep to the tracks. However, staff involved in the reserve see illegal dog walking as a dog enforcement issue, not a conservation issue.

No predator control is being done, and council staff say they are waiting for advice from the Department of Conservation on this. Until three years ago UCOL (formerly Manawatu Polytechnic) tutors and students trapped rodents and monitored predator populations. But no work has been done since then.

Contributed by new Wellington Botanical Society member, Janice Swanwick. Thanks to George Gimblett for taking us to the rata, and to Janice's father, Levin historian and nonagerian, Corrie Swanwick, who provided background and arranged for Mr Gimblett to be there.

We thank Sue McIntosh for having

the Wellington contingent to stay at her home in Manakau, and for a guided tour of her wetland which is protected by a QEII National Trust Open Space Covenant.

Participants: Ted Abraham, Margaret Aitken, Kent Atkinson, Marion Bruce, Vonnie Cave, Leila Chrystall, Wally Dyson, Pat Enright, Frances Forsyth, Susan Hansard, Doris Hamling, Errol Hardy, Rachel Hays, Robyn Hills, Chris Horne, Peter Kora, Olaf John, Sue McIntosh, John McLachlan, Alex Martin, Jean Martin, Cath Mathews, Anne Meuli, Barbara Mitcalfe, Jeanette Putnam, Penry Putnam, Robyn Smith, Janice Swanwick, Beulah Tate, Gloria Thurley, Ian Townsend, Marokopa Wiremu-Matakatei.

TRIP REPORT

3 February 2000: Makara Foreshore Reserve

The purpose of this visit was to resurvey our 6 vegetation transects laid out across the reserve in March 1995. They were easily relocated and we recorded species presence or soil material at 50cm intervals along each transect. Six years ago we had been concerned about the condition of *Raoulia* in the reserve, so the condition and dimensions of each *Raoulia* encountered along the transect were also recorded.

Initial results from our survey indicate that bare ground and leaf litter have increased in 3 transects. This has coincided with a decrease in the presence of marram on the same transects (marram had been sprayed by Wellington City Council contractors). Such definite trends were not noticed with the 2 other common species at the reserve: *Raoulia* presence increased on 1 transect and decreased on 2 other transects, *Disphyma* presence increased on 2 transects and decreased on another one.

There was a general increase in the condition of the *Raoulia* mats

(as defined by the percentage of live material within the mat). No dead mats of *Raoulia* were encountered in 2001 (6 were noted in 1995). Over 75% of the mats contained more than

50% live material in 2001, whereas in 1995 only 40% of the mats were as vigorous as this.

Buck's-horn plantain was not recorded as a common species in our 2001 survey. Although its presence has become a problem in this reserve during the past 6 years, it has been most efficiently removed by Chris Horne and Barbara Mitcalfe during their many weeding efforts at the reserve.

Participants: Margaret Aitkin, Kent Atkinson, Annadel Bouch, Stan Butcher, Rae Collins, June Epsom, Frances Forsyth, Jill Goodwin, Chris Hopkins, Chris Horne, Ros Iles, Rodney Lewington, Robert Logan, Cath Mathews, Alex and Ann Mitcalfe, Barbara Mitcalfe (deputy leader), Annabel Riley, Darea Sherratt, Peter Simpson, Carol Stewart, Rob Stone, Julia Stace, Janice Swanwick, Chiulan Tualima, Maggy Wassilieff (leader), Julia White.

Maggy Wassilieff

New Zealand Ferns and Allied Plants

by Patrick Brownsey and John Smith-Dodsworth

This vital reference has been completely updated and revised, with new and renamed species. It is the only book that covers all ferns and allied plants, both native and introduced, which exist in NZ.

Patrick is Curator of Botany at Te Papa/Museum of NZ, and NZ's leading authority on ferns, having published more than 50 scientific papers.

John began photographing native plants in the late 1960s and since then has developed an interest in ferns.

The publishers of this magnificent text are offering BotSoccers a \$10 discount on the retail price. To take advantage of this generous offer, please use the order form on the enclosed flier.

NZ Native Forest Restoration Trust

The Trust will soon make its final payment for the 330ha block in the Rimutaka Range which it has bought from the owners of Pigeon Bush Station for addition to the neighbouring Rimutaka Restoration Reserve.

The resulting 1100ha bush-clad property fits neatly between Tararua and Rimutaka Forest Parks, just south of Featherston, and markedly widens the corridor of protected land in that area. Plans are to work closely with the Department of Conservation so that common objectives can be developed. Public access is welcomed.

Another small area of similar terrain on the Featherston boundary of the land was recently placed on the market. Though interested, the Trust was unable to make an offer. Recent purchases and commitments in the north have priority.

The Trust is very aware of the considerable support that BotSoc has already given to its activities locally and in other places, but asks that its name be kept in mind when financial matters are being discussed.

AR (Ben) Thorpe
Wellington Trustee. Ph 589 1887.

QEII National Trust: Open Space Covenants and a Licence to Occupy

The Trust has registered the following covenants recently:

- Waimapihi Wetland, 1km south of Pukerua Bay. 1.6ha. Wetland; hardwood forest remnants.
- Smithfield Rd, 3km from Waikanae. 8.1ha. Coastal freshwater wetland.
- Kingston Rd, near Shannon. 10.9ha. Forest remnant.
- Bramerton Bush, Castlepoint Rd, 17km east of Masterton. 29.6ha. Four forest remnants of lowland secondary podocarp/hardwood.

In addition, Tranz Rail Ltd has issued the Trust with a licence to occupy 4km of the Pukerua Bay - Paekakariki escarpment on the Kapiti Coast north of Wellington. This allows the Trust to do beautification and environmental protection work on the site. The land is held by NZ Railways Corporation without any certificate of title, so it was not possible to have a registered open space covenant over it.

The 85.5ha site has high landscape values, and the coastal forest remnants are of considerable ecological importance. They include kohekohe, mahoe, karaka, koromiko-taranga, nikau, wharangi, titoki and porokai-whiri.

The Trust is fortunate that an independent group, Nga Uruora-Kapiti Project Inc, led by Fergus Wheeler, is committed to day-to-day involvement and responsibility for on-site works.

For more information contact:

Philip Lissaman
QEII National Trust

Matiu matters

Recent newspapers have reported the 70% loss of last year's 12,000 plants because of months of little or no rain. The regret of Lower Hutt Forest & Bird is real when the considerable cost of ferry fares and the untold hours lost in producing the 7,800 plants which the 3 nurseries supplied, are counted. Better news is that plants in the area with an irrigation system installed 2 years ago show remarkable growth. The system is to be moved to the devastated area planted last year. Undaunted, 20 or so stalwarts are continuing their fortnightly trips to the island to provide this season's trees. Five planting days are planned to which BotSocers would be warmly welcomed. See the Events section for dates and details.

Matiu/Somes Island will become a refuge for some of the threatened plants of the Wellington region. Listed in the island's Conservation Management Plan are: *Discaria toumatou* (matagouri), present there in 1916, *Acaena pallida*, *Clematis afoliata*, *Euphorbia glauca*, *Lepidium oleraceum*, *L.tenuicaule*, *Leptinella nana*, *Muehlenbeckia astonii*, *Rubus squarrosus*, *Rumex neglectus*, *Streblus banksii*, (already planted), *Suaeda novae-zealandiae* and *Tetragonia tetragonioides*. Suitable niches must be found for these species with, hopefully, a collection for teaching purposes, around the Forest and Bird and Education Houses.

Stan Butcher
Chair, Lower Hutt Branch, Forest and Bird.

Native plants for sale

We are selling our native tree nursery and moving to a smaller place. Let our hobby beautify and enhance your garden, landscape or favourite reforestation project.

We have 6 year old kauri, kahikatea, matai, totara, Hall's totara and snow totara; 2-4 year old cabbage trees, coprosma, coastal broadleaf, coastal flax, hinau, houhere, kaka-beak "East Cape scarlet", kamahi, karaka, kohuhu, kohekohe, tarata, lancewood, lowland ribbonwood, makomako, mahoe, ngaio, nikau, pigeonwood, puka, pukatea, saltmarsh ribbonwood, *Senecio compactus*, swamp maire, titoki, *Tecomanthe speciosa* and many Hebes, grasses and sedges. Most prices are from \$2-\$5; some larger kauri are \$10.

Graham and Judy Petterson, 24 Eruini St, Waikanae. 04 904 6762.

Wellington Regional Council Pest Management Strategy

Wellington Regional Council (WRC) is reviewing its Pest Management Strategies that have been in effect since 1996. A proposed draft Pest Management Strategy has been produced. This will be put out for consultation with key stakeholders before calling for public submissions. The document outlines how WRC will manage pest plants and animals for the next 20 years. Significant changes to the proposed Strategy from the previous Strategies are:

- Combining pest plants and animals under one Pest Management Strategy.
- Having a 20-year duration for the Strategy, to be reviewed at 5-year intervals.
- Requiring the relevant roading authority to manage all pest species on roadside verges as outlined in the Strategy.
- New category definitions for the pest management programmes, which better reflect the objectives for those pests.
- The inclusion of a wide range of plant and animal pests in the Key Native Ecosystem Management Category in order to protect and enhance indigenous biodiversity throughout the Region.

After consultation with key stakeholders, the draft Strategy will be amended. The proposed Strategy will then be notified and put out for public submission. After the submission process is completed, the Strategy will be put to the Council for approval and implemented in June 2001.

*Rosie Doole
Biosecurity Officer (Special Projects), WRC*

Snakefeather – a new education campaign for *Asparagus scandens*

“A rose by any other name is still a rose” but that’s not the case with climbing asparagus. Regional Council officers are hoping that the public will start to identify climbing asparagus plants as Snakefeather, an alien pest in their own gardens that needs to be destroyed while it is small.

Since possums have been controlled in the northern suburbs of Wellington City, South African Snakefeather has been noticed spreading across private land above Trelissick Park, also in Wadestown next to the Town Belt, and near Khandallah Park. It looks fragile and pretty, so people leave this menace until it is 2m high and strangling small trees. By then birds have helped themselves to the small orange berries and spread the pest even further. Snakefeather is an understorey plant that will never be shaded out by healthy forest canopy. It forms a solid green fog that occupies all the space from ground level up to its three metre height limit.

Snakefeather is easy to kill when it is small. Just dig out the crown where the shoots come from (be careful not to pull them off first). You don’t have to get all of the root tubers – just the top crown where the shoots bud. At this stage we don’t think the plant regrows from any other pieces.

There is no legal obligation to clear Snakefeather. The plant can be easily observed on road reserve opposite 16a Calcutta St, Khandallah. In February 432 berries were counted on a 1m length of vine from this site.

*Rosie Doole
Biosecurity Officer (Special Projects), WRC
Ph 025 741 989*

Protecting indigenous ecosystems

The Department of Conservation has recently protected the following sites by means of Conservation Covenants:

- Makara Covenant, 142 ha. Ponoke Area Office. Coastal shrublands, rimu-kohekohe forest remnants, public walkway.
- Tini Bush Covenant, 6.1 ha. Kapiti Area Office. Pukatea-kohekohe on sand plain and sandridge. RAP 4 Foxton Ecological District.

The above covenants are on private land. Permission to visit them **must** be sought from the owners, whose contact details are held at the relevant Area Office.

In addition, the Department has acquired:

- Lowes Bush Scenic Reserve, 42 ha. Wairarapa Area

Office. Kahikatea-swamp maire forest, Masterton. RAP 5 Wairarapa Plains Ecological District.

and has protected as Private Protected Land:

- Fensham Reserve (owned by Forest and Bird Protection Society), 49.8 ha. Wairarapa Area Office. Primary kahikatea forest on flat and swampy ground. Manuka regeneration. RAP 4 Wairarapa Plains Ecological District.

*Adrian Griffiths
Community Relations Officer
Department of Conservation
Ph 472 5821*

Wellington Botanical Society membership form

Our membership year is 1 July – 30 June. Dues received after 1 May will be credited the following year.

I wish to join the Society

My name is (please print clearly)

My address is

.....

.....

Telephone (.....) (home) (.....).....(work)

I enclose my subscription: ordinary \$22

(tick one) country \$17

student \$12

Subscription \$.....

I wish to make a donation of to the WBS Jubilee Award Fund,
to help support research into NZ native plants.

Donation \$.....

I enclose a cheque payable to:

WELLINGTON BOTANICAL SOCIETY for

TOTAL \$.....

Please send this form and your cheque to:

The Treasurer
Wellington Botanical Society
PO Box 10-412
WELLINGTON 6036

Thank you.

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