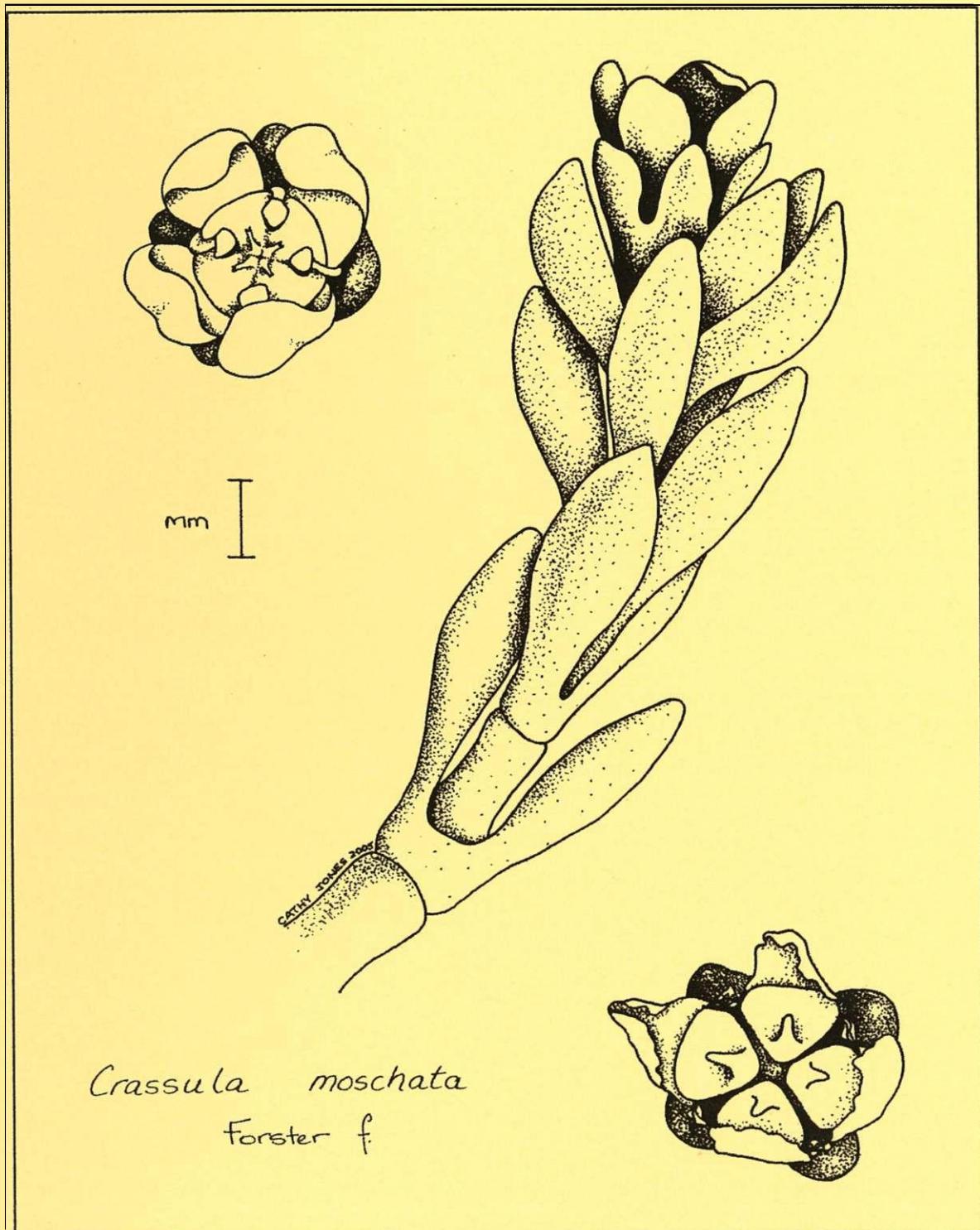


NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 80

JUNE 2005



Crassula moschata
Forster f.

New Zealand Botanical Society

President: Anthony Wright
Secretary/Treasurer: Aaron Wilton
Committee: Bruce Clarkson, Colin Webb, Carol West

Address: c/- Canterbury Museum
Rolleston Avenue
CHRISTCHURCH 8001

Subscriptions

The 2005 ordinary and institutional subscriptions are \$25 (reduced to \$18 if paid by the due date on the subscription invoice). The 2005 student subscription, available to full-time students, is \$9 (reduced to \$7 if paid by the due date on the subscription invoice).

Back issues of the *Newsletter* are available at \$2.50 each from Number 1 (August 1985) to Number 46 (December 1996), \$3.00 each from Number 47 (March 1997) to Number 50 (December 1997), and \$3.75 each from Number 51 (March 1998) onwards. Since 1986 the *Newsletter* has appeared quarterly in March, June, September and December.

New subscriptions are always welcome and these, together with back issue orders, should be sent to the Secretary/Treasurer (address above).

Subscriptions are due by 28th February each year for that calendar year. Existing subscribers are sent an invoice with the December *Newsletter* for the next years subscription which offers a reduction if this is paid by the due date. If you are in arrears with your subscription a reminder notice comes attached to each issue of the *Newsletter*.

Deadline for next issue

The deadline for the September 2005 issue (81) is 25 August 2005.

Please post contributions to: Joy Talbot
17 Ford Road
Christchurch 8002

Send email contributions to joytalbot@free.net.nz or talbotj@cpit.ac.nz. Files are preferably in MS Word (Word 2003 or earlier) or saved as RTF or ASCII. Graphics can be sent as Corel 5, TIF JPG, or BMP files. Alternatively photos or line drawings can be posted and will be returned if requested. Drawings and photos make an article more readable so please include them if possible. Macintosh files cannot be accepted so text should simply be embedded in the email message.

Cover Illustration

Crassula moschata, a tiny native succulent, with details of two flowerheads, one in full bloom and the other after anthesis with developing fruit. Plant from Te Tai Tapu coast, North West Nelson.

Drawing by **Cathy Jones**

NEW ZEALAND BOTANICAL SOCIETY
NEWSLETTER
NUMBER 80 JUNE 2005

CONTENTS

News

Regional Botanical Society News

Auckland Botanical Society	2
Waikato Botanical Society	3
Rotorua Botanical Society.....	4
Wanganui Museum Botanical Group.....	5
Manawatu Botanical Society.....	6
Wellington Botanical Society.....	7
Nelson Botanical Society	8
Canterbury Botanical Society.....	10
Botanical Society of Otago.....	12
Botanical Society Contacts	12

Request

New Zealand Indigenous grasses (Poaceae) wanted to complete chromosome survey.....	13
--	----

Notes and Reports

Suggested corrections to information in the 2nd edition of An Illustrated Guide to Common weeds of New Zealand.....	14
Changes in a riparian forest of Turakina Valley, following floods of February 2004	16

Biography/Bibliography

Biographical Notes (58) : Roderick MacDonald (1824–1886).....	17
---	----

Publications

Journals Received

New Zealand Native Orchid Group Journal No. 95	19
--	----

Addendum

Change to citation of adventive <i>Euphorbia milii</i> specimen	19
---	----

NEWS

Regional Botanical Society News

■ Auckland Botanical Society

March Meeting and AGM

After problems with the venue, and a hurried finding of new rooms, the AGM was held, with Mike Wilcox being re-elected as President. This was followed by a magnificent presentation by Jenny Lux of her MSc "Ecological Studies at Waipoua". Tim Martin then spoke of his work on wind disturbance in SW North Island montane conifer and *Nothofagus* forest.

March Trip

The usually inaccessible bombing range at the tip of the South Head of the Kaipara Harbour had been found in the past to have had plants of the adventive fern *Osmunda regalis* growing there. This field trip included a grid search through the oioi to locate any lingering plants. Fortunately, none were found. However, the southern limit of the little yellow-flowered herb, *Blackstonia perfoliata* was extended by a few km, and the small indigenous herbs, *Limosella lineata* (flowers), *Myriophyllum votschii* and *Triglochin striatum* were seen.

Easter Trip to Mt Egmont

Staying at Konini Lodge, Dawson Falls on a rather wet Easter weekend, nevertheless gave access to a botanical paradise. A day was spent at Lake Rotokari, Eltham, in the pukatea/ kahikatea swamp forest with carpets of mosses and liverworts. Better weather allowed a day's botanising just above the Manganui Gorge, where a plethora of alpine plants enthralled in the leatherwood (*Brachyglottis elaeagnifolia*) scrub. A boardwalk allowed access to the Potaema Bog after entering through the lushest of forest tracks with *Libertia micranthus* and *Leptopteris superba* tucked into festoons of mosses and liverworts.

April Meeting

Leslie Haines spoke at a new venue, Unitec School of Natural Sciences, on native plant ecosourcing and revegetation strategies. She had pictures that showed good, not-so-good and bad examples of planting. Chris Ferkins then showed examples of the work being done in Waitakere City on revegetating stream and river edges with ecosourced plants. A short discussion followed on this controversial topic.

April Trip

The Oratia Reserve in the eastern foothills of the Waitakere ranges belongs to Auckland University. It consists of about three ridges with wet gullies between. Among the plants growing in these gullies are swamp maire and pukatea. The main points of interest on the day were the trees of *Halocarpus kirkii* and *Lagarostrobos colensoi*.

May Meeting

The opportunity was grasped to hear Professor Jim Doyle from the University of California, while he is on Sabbatical at the University of Auckland. The topic "What do we know about the first angiosperms?" gave food for thought on the latest research into relationships between angiosperms and other seed plants.

May Trip

A block of untracked native forest near Whitford, partly owned by the Manukau City Council and partly in private ownership, was explored in the company of a group of local enthusiasts. The gullies that support broadleaf trees, and ridges with kauri and tanekaha, were enjoyed, before taking an overview of an adjoining quarry. The proposed expansion of this quarry is of concern to the local residents, as it will encroach on the bush.

Forthcoming Activities

- | | |
|---------|--|
| 1 June | Mike Wilcox, "Flora of Central Australia" |
| 18 June | Makarau, Kaukapakapa |
| 6 July | Craig Bishop, "The nature and stability of frost flat heathland/forest ecotones in the central North Island" |
| 16 July | Bartlett's Forest, Silverdale |

3 August Cilla McCallum, "Historical Maori resource management of harakeke"
20 August Botany of the Auckland Zoo

Maureen Young, 36 Alnwick Street, Warkworth. Email: youngmaureen@xtra.co.nz

■ **Waikato Botanical Society**

During the Festival for the Environment in March we were proud to present our key event for the year – a lecture at the Waikato Museum of Art and History by David Given, curator of Botanical Services, Christchurch City Council, and recent recipient of the Peter Scott Award for Conservation Merit, the highest award given by the Species Survival Commission of the IUCN (the World Conservation Union).

Over 100 people turned out for drinks and nibbles before filling the lecture theatre to the brim for David's fascinating talk, a large part of which focused on the Global Strategy for Plant Conservation, which was adopted by the IUCN in 2002. The ultimate goal of the strategy is to "halt the current and continuing loss of plant diversity". Sixteen global targets provide a framework for nations and regions to set targets according to their own priorities, capabilities and plant diversity. These targets are based around documenting and conserving plant diversity, sustainable use of plant diversity, promoting education and awareness, and building conservation capability.

New Zealand is considered to be one of a number of global "hotspots" and is the only country to be considered so in its entirety. There are huge challenges for those dedicated to the conservation of plants and plant diversity and many people came out of David's talk fired up to get to work!

Following the lecture we were able to have a private viewing of the visiting Nancy Adams botanical paintings and drawings exhibition.

David joined us for a field trip that weekend to explore coastal forest and limestone outcrops on the northern shores of Raglan Harbour. On the bush margin in Motukokako Scenic Reserve we spotted *Metrosideros carminea*, which is relatively uncommon in the region and was once listed as a threatened species. Limestone outcrops adjacent to the reserve also yielded an individual of another formerly threatened species, *Parietaria dabilis*.

In April a small group met at Lonely Bay on the Coromandel Peninsula to search for the Nationally Endangered *Olearia pachyphylla*. A single plant was identified in this spot in 1992 by Peter de Lange but despite a thorough search we were unable to repeat this. Regeneration and vegetation succession have reduced the available habitat and may have closed in on the *O. pachyphylla* individual to the point where it could no longer survive. Potential habitat remains on the cliffs and local ecologist John Longden (also an abseiler) who joined us on the trip will keep an eye out for *O. pachyphylla* in future.

Later in April our AGM took place, followed by a talk by Cilla McCallum. Cilla presented work from her PhD thesis at the University of Waikato on the sustainable harvest and cultural aspects of harakeke (flax). Historically, knowledge on the use and other aspects of harakeke was passed down orally. Today the traditional uses of many of the varieties are unknown. Cilla's work has involved exploring old records and early publications, as well as many hours interviewing kuia on the knowledge passed down to them. We also heard about the distribution and exchange of different varieties of harakeke, and how it could be traced from region to region, and about pa harakeke – areas of cultivated harakeke near pa sites, some of which can still be found today.

Upcoming events:

Saturday 2nd July – Herbarium workshop – Sedges and Rushes. With Rotorua Botanical Society. (at Forest Research, Rotorua)

Sunday 25th September – field trip in Karangahake Gorge, Coromandel Peninsula

President: Liz Grove, eg3@waikato.ac.nz

Secretary: Andrea Brandon, abrandon@doc.govt.nz

General contact: bot_soc@waikato.ac.nz

▪ **Rotorua Botanical Society**

RECENT TRIPS

Whirinaki Field Trip (Paul Cashmore)

In early March Rotorua and Waikato Botanical Society and Forest and Bird members combined for two days of botanical exploration in and around Whirinaki Forest Park. The first day was spent at Arahaki Lagoon botanising this large ephemeral lagoon surrounded by kahikatea forest. The lagoon still had a large amount water present for this time of year. Instead of the usual turf species the lagoon vegetation had been replaced with predominantly submerged aquatic species. Species of note included *Isolepis fluitans*, and *Potamogeton pectinatus*, while some extensive debate was had over the differences between *Hypsela rivalis* vs *Isotoma fluviatilis*. We settled for *Hypsela rivalis* in the end.

On the second day we were joined by Craig Bishop from Wildland Consultants who has completed his PhD on frost flat ecology in the Central North Island. With Craig we visited the two main frost flat sites in Whirinaki at Waione and Taahau and spent most of the day botanising here. Botanical highlights included the discovery of three species of *Hypericum* – *H. japonicum*, *H. humifusum* and the threatened *H. aff. japonicum*, as well as populations of *Ophioglossum coriaceum* and *Botrychium australe*. A visit to see one of the *Dactylanthus taylorii* sites DOC is managing in this area was also included.

Pihanga Field Trip (John Hobbs)

Sunday 13 March dawned misty in Rotorua but Turangi put on a cracker of a day for the ascent of Pihanga. A good turn out of thirteen were guided up through the forest by Nic Singers (DoC, Turangi) who pointed out patches of *Dactylanthus taylorii* just inside the forest edge and *Schizella trifoliatum* higher up the mountain. After climbing up through podocarp / broadleaf then beech forest we had lunch amongst the sub-alpine scrub we climbed into the sub-alpine grassland on the summit feeding on the abundant bright red snow totara and pygmy pine fruit on the way. On the summit T shirts were the order of the day as we took in the awesome 360 degree panorama.

Lake Rerewhakaaitu (9 April)

The recent trip to Lake Rerewhakaaitu, led by Sarah Beadel, was extremely interesting. Sarah found a previously unrecorded large population of *Amphibromus fluitans* (classed as nationally endangered). The low lake levels meant that the low turf communities around the lake margins were exposed and many small indigenous herbaceous species were visible including *Glossostigma elatinoideis*, *Lilaeopsis lacustris*, *Gratiola sexdentata*, *Myriophyllum propinquum*, *Elatine gratioloideis*, arrow grass (*Triglochin striata*), mudwort (*Limosella lineata*), and *Montia fontana*.

Another highlight of the day was *Carex cirrhosa* (classed as gradual decline) which is well known from Lake Rerewhakaaitu. Also a great source of interest was a good population of *Wolffia australiana*.

Several different parts of the lake margin were visited and at the last stop near "the crater", a sizeable population of *Myriophyllum votschii* was found on the margins of Lake Rerewhakaaitu.

Talks: We have had two excellent talks by Craig Bishop – "Life on the edge: stability of frost flat ecotones in the Central North Island" and Jenny Lux – "Vegetation patterns after prehistoric burning of kauri forest at Waipoua, Northland, New Zealand.

FORTHCOMING ACTIVITIES

11 June	Lake Ohakuri Geothermal Sites
2 July	Herbarium workshop – Sedges and rushes
2 July	AGM and talks by Sarah Beadel, Willie Shaw and John Hobbs
7 August	Maketu to Little Waihi Estuary
4 September	Ngamuwahine, Kaimai-Mamaku Forest Park
2 October	Lake Rotokawa (near Taupo) Geothermal sites

c/- The Herbarium, Forest Research, Private Bag 3020, Rotorua

President: Chris Bycroft (07) 346-3647 chris@wildlands.co.nz

Secretary: Joan Fitzgerald (07) 347 7917

■ Wanganui Museum Botanical Group

TRIP REPORTS

Okehu Stream mouth, west of Mowhanau Beach. 4 December 2004.

This trip was short, being constrained by our ability to walk the beach between tides. In the narrow gorge of the Okehu Stream, cut through the mudstone cliff to the sea, we succeeded in our advertised aim, namely to see a small daisy, *Euchiton (Gnaphalium) polylepis* with flower buds, in one of its two known lowland sites in the North Island. The species has a conservation status of 'Data Deficient'. Growing with *E. polylepis* were patches of male plants of the threatened button-daisy *Leptinella (Cotula) dispersa* subsp. *rupestris*. Much of the *Leptinella*'s range is between Castlecliff and Hawera, where it is probably more threatened than its current conservation status of 'Range Restricted', because of rapid coastal erosion and the fact that no population is known with both sexes. The only other records are from Kariotahi near the Manukau Harbour (where it still grows) and Ahipara. Colin Ogle

'Ben Moi' farm, Kawhatau Valley, east of Mangaweka and Utiku - 29 Jan. 2005. 'Ben Moi' is known for its garden of splendid trees, although the farm's forest remnants were the trip's focus. Near the homestead, we circumnavigated the large ornamental pond and, although impressed by the trees, we were sad to find a naturalised vine or two of climbing spindleberry (*Celastrus orbiculatus*). Late morning we crossed the road to an elevated river terrace of the Kawhatau River. In forest and scrub remnants in grazed pasture we soon found ribbonwood, *Coprosma rubra*, *C. virescens*, *C. crassifolia*, *Korthalsella lindsayi*. It looked like a very promising area for something even rarer! Under a small grove of titoki I found a patch of an unfamiliar small grass, some of which I collected. Little did I realise then that this was the 'much rarer' plant I hoped for. Eventually it was Dr Rhys Gardner who identified it as a *Simplicia*. There is still debate about the species but, regardless of which, it is yet another disjunct species between the Rangitikei and the eastern North Island and South Island. Following lunch we were guided by the landowners to the cliff-top and a route to the river bed. Some of us followed our guides, clinging to shrubs, mountain flax, *Libertia grandiflora*, hardy ferns and, in places, abundant bamboo rice-grass (*Microlaena polynoda*), down to tall titoki and podocarps on the river flats. We had little time here to explore because the owners wanted to see us safely up the cliffs before they went to the local A&P show. We did spot *Scandia rosifolia* with *Hebe stenophylla* (the fine-leaved Mangaweka form) on sheer mudstone just above the river. To assess the amount and extent of *Simplicia*, and to explore the lower terraces properly, we have permission to return at the same time in 2006 (see programme). Colin Ogle

Grice's Bush and Lake, No 2 Line, Fordell - 27 February 2005 We had a memorable trip to two local wetlands that few of knew existed. Forest on the steep slopes above 'Lake 1' was quite patchy and eaten out by stock until recently. However, it had a good range of trees and particularly fine examples of e.g., hinau, kahikatea and pukatea. These grew almost to the edge of Lake 1 and the edge had been fenced for many years. Lake 1 covers 1-1.5 ha and is reportedly a maximum of 6 m deep. Within the fenced margin were dense beds of raupo, kapungawha (*Schoenoplectus tabernaemontani*), *Carex lesssoniana* and a patch of kukuraho (*Bolboschoenus fluviatilis*). On an old track between the forest edge and the lake were clumps of rushes and sedges, among which was an unfamiliar robust *Carex* tussock. It has been confirmed since by CHR as *C. ochrosaccus*, possibly the first record of it in this region (*Flora of NZ Vol. 3* says 'from Kaitaia southwards to Waikato'). Two other regionally uncommon species were *Gahnia lacera* under kanuka above the track and, at Lake 2, *Hypolepis distans* on the base of *Carex secta*. Lake 2 also contained the threatened celery-leaved pondweed, *Potamogeton pectinatus*. Colin Ogle

Bason Botanic Garden near Mowhanau, Wanganui: 8 May 2005. A slightly drizzly morning greeted the group of seven people who arrived at the Bason. Clive Higgin led us and the visitors included John Martin, new chairman of the BBG Trust and Beverley Sinclair, secretary of the Trust. We looked briefly round the houses of indoor plants where some of the orchid species were flowering, then walked the zigzag track down Millenium Hill, viewing the new plantings of ornamental trees and the large succulents at the corner end. Across the spillway of the lake we noticed *Equisetum arvense* and *Iris pseudacorus*, both undesirable. In the Boothby Fern House we noted that smaller-growing ferns could be used to replace some of the many large ones, but were impressed with the native begonia, *Elatostema rugosum* and large patch of tangle fern, *Gleichenia dicarpa*, both on the shady area outside. Vonnie Cave

EVENING MEETINGS

Unless otherwise stated, meetings are the first Tuesday of each month in the Museum's Davis Lecture Theatre; commencing 8 pm summer (i.e. daylight saving) time; 7.30 pm winter time (April-October).

5 July 2005: Jim Campbell - 'Botany over my border' (NW Nelson)

2 August: AGM and members' contributions.

6 September: Clive Higgie - 'Hunting for kauri in Vanuatu'

4 October: Professor Vince Neall – Chatham and Mangere Islands

1 Nov. at 7pm in Museum Classroom. How to look at Grasses: a practical evening. Guide: Colin Ogle

6 December: Christmas social evening.

7 February 2006: Jacqui McGowan - digital photography

7 March: Ron Macdonald - Galapagos Islands and Easter Island

FIELD TRIPS

Saturday 2 July 2005: Some of Wanganui's Big Trees - a mystery tour

Saturday 6 August: Junction Road for native orchids

Saturday 10 September: Nitschke/Gortons Bush RAP, Waituna West, north of Feilding

Saturday 1 October: Ototoka Beach

Saturday 29 October: South Taranaki sea coast

Saturday 3 December: Bridge to Nowhere, Pipiriki

Saturday 4 February 2006: 'Ben Moi' farm, Kawhatau Valley,

Sat 4 March: Lake Rotokauwau, Whangaehu, SH3

President: Vonnice Cave, Seafield Road, RD4, Wanganui. Ph. (06) 435 8326; vonnicecave@xtra.co.nz

Secretary: Robyn Ogle, 22 Forres Street, Wanganui. Ph. (06) 347 8547; robcol.ogle@xtra.co.nz

■ Manawatu Botanical Society

April – Karaka culling at Atawahi Road

Members were invited to Michael Greenwoods revegetation planting (article, *NZ Bot Soc Newsletter* 78, p11) to pull out all the karaka seedlings they could find. The good turnout meant that most of the bush was cleared of plants over 1.5 m. with 10,000 estimated to have been removed. Seedlings remaining will be removed at the same time as an attempt is made to remove the larger trees.

May – Kopua/Southern Star Abbey

The Southern Star Abbey at Kopua, near Dannevirke (New Zealand's only abbey) sits on the edge of a terrace overlooking the upper reaches of the Manawatu River. Surrounded farmland has patches of totara trees and occasional bush remnants, usually in gullies. Remnants near the abbey buildings are being maintained and added to by the monks. Overall these bush areas total about 10 ha. Despite these remnants being interspersed in grassland and grazed by sheep until 5 years ago there is an excellent species list of around 110 native species. Unfortunately some of the exotic species also listed (e.g. *Berberis darwinii*, *Erica lusitanica*) are very aggressive.

One delight was a massive 15 cm diameter stem of *Rubus australis* which curved gracefully up into the canopy. A small wetland remnant provided some interesting species including *Blechnum novae-zelandiae* with young fertile fronds, *Carex virgata*, and a small patch of *Eleocharis acuta*. *Melicope simplex* was common on the slopes below the terrace, one containing the mistletoe, *Korthalsella lindsayi*. In a remnant on one part of the terrace, was the densest stand of mahoe seedlings (to 2-3 m high, with a stem every 20-30 cm) anyone had ever accounted. One delight of the afternoon was a hybrid beech (red x black) which, like a large black beech previously found, contained plants of the mistletoe, *Alepis flavida*. The few anomalies on the species list – no *Griselinia littoralis*, *Ripogonum scandens* or *Macropiper excelsum*, will be looked out for on a future inspection.

2005 PROGRAMME

2 June Millennium Seed Bank, Wakehurst Place, England (Craig McGill)

11 June Tour of Te Papa herbarium (WELT) (Leon Perrie)

2 July Akitio Bush

1 September Kawakawa holes (4th year students)

7 October Utiku's hidden delights (including Makino Scenic Reserve), Taoroa Junction

3 November Weeds in Junes (Colin Ogle)
3 December Rata up the Pohangina, Totara Reserve

Jill Rapson Ecology Group, Institute of Natural Resources, Massey University, Palmerston North.
Ph (06) 350 5799 Ext 7963; Email: G.Rapson@massey.ac.nz

▪ **Wellington Botanical Society**

Trip Reports and Meetings - December 2004 to April 2005

December field trip - Himatangi Scientific Reserve (Paranui Bush)

Paranui is a small forest and shrubland remnant in the Foxton sand dune district. Seven BotSocers climbed a dune ridge with its *Coprosma crassifolia*, *Melicope simplex*, *Griselinia lucida* and *Polystichum*, kanuka and lancewood, with patches of clematis, on the way to exploring the forest. The canopy is mainly mahoe, titoki, and poataniwha, with the occasional porokaiwhiri/pigeonwood, and epiphytic *Collospermum hastatum*. Beyond the forest, pukatea trees are scattered across the sand plane.

December / January Summer trip - Western Canterbury

From our camp at Stavely Camp 30 BotSocers rose most days to drizzle or rain, but almost always found ourselves above or beyond the weather.

Day 1 - Mt Somers: Bus stop route – Mt Somers Hut – Woolshed Creek
Day 2 - Little Mount Peel/Huatekerekere
Day 3 - Ashburton Lakes
Day 4 - Awa Awa Rata Reserve
Day 5 - Mount Hutt Range
Day 6 - Mt Somers 1688 m, from Sharplin Falls Reserve
Day 7 - Rakaia Gorge Walkway; Washpen Falls
Day 8 - Cameron River Flat; Spider Lakes

January field trip - Part of Pakuratahi Forest and Climie Ridge

Mixed beech, podocarp and broadleaf species provided the canopy for 13 BotSocers' ascent up Tane's track to a lunch in the deep moss armchairs of the summit's goblin forest. To cap off the trip, *Hymenophyllum peltatum* was added to the species list.

February field trip - Lowe's Bush and Te Pamu, Wairarapa

Lowe's Bush has been described as "the largest and most intact area of kahikatea swamp forest, distinctive for its maturity, ecological diversity and condition within the Wellington Conservancy, if not the entire N.I." and "the best representative of the once extensive podocarp swamp forest of the Wairarapa plains." We all enjoyed this opportunity to botanize this ecosystem which ranges from raupo swamp to tall kahikatea and pukatea. It includes some planted Wairarapa species of threatened status.

February Meeting - Recent research by Te Papa on New Zealand's ferns

Leon Perry, Curator of Botany, Te Papa

February Daytime Workshop - An interactive computer key for NZ ferns

Patric Brownsey Curator of Botany, Te Papa

February workbee - Dench garden

March field trip - Mt Kaukau – southwest slopes

The regenerating forest valleys and crags on the south slopes of Kaukau provided a lost world for the 14 BotSocers exploring where the local children of the playstation generation don't seem to venture. Kohekohe, pukatea, the occasional miro and even a 4 metre *Ascarina lucida* are testament to the good work of the Regional Council's possum control.

March field trip - Rimutaka Forest Park –Tapokopoko

Four intrepid BotSocers braved ominous weather to camp in the Orongorongo valley, and climb Tapokopoko (843 metres) via the spur behind Paua Hut. Beech forest with flowering *Earina autumnalis* lead to mixed podocarp/beech, with evidence of years of possum damage. We note that following this trip on 30/31 March, a huge storm (450 mm of rain) caused severe flooding and damage with several tramping huts swept away, and Browns Stream bursting out to undermine Wairanga hut, and deposit a huge fan of boulders and trees across the Orongorongo riverbed. Several bridges on the Five-Mile track were washed away.

March evening meeting - Global warning and alpine plants
Dr Stephen Halloway, Crop & Food, Dunedin

March event - Otari-Wilton's Bush – native plant identification

Six BotSocers enjoyed showing 6 members of the public the wonders of Otari park and Wilton's Bush, using a species list prepared on last year's BotSoc field trip.

April field trip - View Road South Headland Reserve; Te Raekaihau Foreshore Reserve

From the coastal platform at Princess Bay, raised in the 1855 earthquake, 12 BotSocers climbed through coastal flax, gnarled taupata, *Melicytus crassifolius* in fruit, *Aciphylla squarrosa*, and *Pimelea prostrata* to Waitahu Ridge with views of the Rinutakas, Wellington's Baring Head, and the Kaikoura Range 120km away. However, on the south of Te Raekaihau "the headland that eats the wind", weeds thrive, including fennel, veld grass, old man's beard, Darwin's barberry, evergreen buckthorn and more. A site in need of restoration and protection.

April evening meeting - The warm autumn rain... Mushrooms and Boletes in NZ
Geoff Ridley, Science Manager ERMA.

April workbee - Druce Collection, Pinehaven

May evening meeting - Members' evening - slides, photos, stories

President: Joyce Stretton (04) 934 2437

Secretary: Barbara Clark (04) 233 8202 (h); (04) 233 2222 (fax) PO Box 10 412, Wellington 6036

▪ Nelson Botanical Society

Soper's Covenant, Takaka, February 20th

On a fine day, 22 members set off to explore this 40 ha bush block by the Waitapu estuary. Much of the covenant is secondary forest with some huge kanuka towering over groves of tree ferns. Outcroppings of pure quartzite were home to a host of perching species, including both *Earina* orchids and *Winika cunninghamii*, *Collospermum hastatum*, puka (*Griselinia lucida*) and a handful of filmy ferns (*Hymenophyllum bivalve*, *H. rarum* and *H. flabellatum*). Nationally important was the discovery of the rare tree inaka (*Dracophyllum urvilleanum*) in very good numbers. This is one of the largest populations known of this endemic Nelson/Marlborough species. It has apparently been previously overlooked and has a conservation status of "nationally vulnerable". We noted the rare presence of northern cedar, kawaka (*Libocedrus plumosa*). Three other species: kauri grass (*Astelias trinervia*), toropapa (*Alseuosmia macrophylla*) and the stalked hardfern (*Blechnum fraseri*) are all northern North Island species which miss the lower North Island to make landfall in Golden Bay. The rarely encountered filmy fern *Trichomanes elongatum* was found, also the nationally rare estuary sedge *Carex litorosa*.

Gorge Creek, Golden Bay, March 20th

Another brilliant day saw 19 of us set off for a walk into one of the lesser known parts of Abel Tasman National Park. The open dry river bed paved with marble boulders led into a steep sided gorge with large podocarps. Riparian shrubs included *Lophomyrtus obcordata*, *Streblus heterophyllus*, *Melicope simplex*, *Hebe gracillima*, *Coprosma propinqua* and *C. crassifolia*, the latter very rare in Golden Bay and reaching its western limit in Nelson here. The calcicoles were also peppered through the landscape, (ie. species which are confined to, or predisposed to calcareous substrates). These included limestone rata vine (*Metrosideros colensoi*), *Hebe albicans* var. "NW Nelson *glaucophyllus*"

(the erect, narrow-leaved unnamed variety of *H. albicans*), *Craspedia minor*, limestone kowhai (*Sophora longicarinata*), and *Asplenium* aff. *trichomanes*.

The lunch stop was next to an adolescent *Pseudopanax ferox*, one of a few known sites for this species in Nelson. Further upstream at a major bluff system we encountered special plants: the very rare *Senecio* aff. *glaucophyllus*, and the curious *Wahlenbergia matthewsii* at its only known locality outside of South Marlborough where it is confined to limestone. On the shady bluffs there were two species of forget-me-not, the stout tufted perennial NW Nelson calcicole, *Myosotis brockiei*, and the small, short-lived, creeping *M. spathulata*, both of which are also nationally threatened. There was also the unusual occurrence of native aniseed (*Gingidia montana*) and *Celmisia gracilentata* var. on the bluffs here, along with a small population of *Brachyglottis laxiflora* and the nationally rare bamboo tussock (*Anemanthele lessoniana*). Weeds have become a major problem. Mexican Daisy is smothering and directly threatening these rare species. Ivy, barberry, yellow jasmine, cotoneasters, stinking iris, centranthus and other garden escapes are heading the same way. The other nationally rare species, *Teucrium parvifolium* and *Scutellaria noave-zelandiae*, have previously been recorded from Gorge Creek but may now be extinct here due to weed competition.

Easter Camp, Mt Lyford.

On Friday in spite of rain, a group set off for Crystal Lake. Interesting plants included *Euphrasia laingii*, *Carmichaelia australis* and various coprosmas. The pond weed *Potamogeton cheesemanii* was something we were not familiar with. Later we explored various 4-wheel drive tracks. *Anisotome filifolia*, a form with particularly wide leaflets, was seen. A bushy totara proved interesting. It was concluded that it was a hybrid of *P. nivalis* and *P. cunninghamii*.

On Saturday in bright sunshine we headed up the road, then onto the Mt Lyford track which climbs steeply up the beech/Hall's totara forest margin to emerge above the treeline into areas of tussock, subalpine scrub and scree. Plants of note here were *Helichrysum parvifolium*, *Olearia cymbifolia*, *Anisotome filifolia* with its many leaf variations, *Carmichaelia monroi*, *Aciphylla monroi*, *Celmisia sinclairii* and *Hebe pinguifolia*. Interesting scree plants were *Wahlenbergia cartilaginea*, *Gentianella magnifica* and *Oxalis* "scree" in large numbers (all three on the national threatened plant list), *Epilobium pycnostachium*, *Stellaria roughii*, *Lobelia roughii*, *Poa buchananii*, *Leptinella dendyii*, *Hebe epacridea* with *Epilobium crassum*, *Helichrysum coralloides*, *Leucogenes grandiceps* and *Leptinella pyrethrifolia* on the margins. The weather clagged in and lunch was eaten quickly, then we continued upwards, finding *Raoulia bryoides*, *R. grandiflora*, *Celmisia viscosa*, *C. laricifolia*, *Pimelea traversii*, *Myosotis traversii*, *Phyllacne colensoi* and *Notothlaspi rosulatum* on scree and rock on the west side of the ridge. Reaching a high point at 1492 metres, we descended to the skifeld road at Lake Stella and followed it back to the lodge, a warm fire and early dinner.

On Sunday we drove to Ferniehurst Bush, a few kilometres north of the Leader River in southern Marlborough. The 60-acre patch of bush is a relic of the former more widespread forest. Podocarps dominate the upper tiers with broadleaved hardwoods below. Near where we parked the cars we spotted a large clump of *Ileostylus micranthus* growing on *Elaeocarpus hookerianus* and *Tupeia antarctica* on *Pittosporum eugenioides*. Small-leaved shrubs, including *Melicactus micranthus*, *Lophomyrtus obcordata*, *Melicope simplex*, and *Streblus heterophyllus* taxed our skills, along with a selection of coprosmas. Our thanks to the Wilding family for allowing a very interesting and enjoyable visit.

On Monday after packing up, we headed back to Kaikoura and up Mt Fyffe in glorious sunshine. After ferrying the group to the hut by 4WD, we botanised up the track towards the summit. The sub-alpine scrub on the eastern slopes was, to our dismay, soon replaced by a thick mass of *Pinus contorta* wildings. Climbing upwards we found a few native species on rocky road margins that had not yet been swamped by contorta, and rather pleasingly, *E. brevipes* and *Traversia baccharoides*, both on the national threatened plant list. Higher up a saddle gave access to eastfacing scree slopes which have not yet been invaded by contorta. Here we found *Raoulia bryoides*, *Gingidia decipiens*, *Colobanthus acicularis*, *Acaena glabra*, *Aciphylla monroi*, *Hebe epacridea*, *Heliohebe raoulii*, *Melicactus* "Kaikoura", *Exocarpus bidwillii*. Here most of us turned back to the truck because we still had a long drive, back to Nelson. Five continued to the summit. En route on a rocky western face they finally discovered a few plants of *Carmichaelia crassicaule*, which we had all been looking for, and *C. monroi*. From the summit they had stunning views of Cook Strait and the North Island.

Duncan Bay, Ngawhakawhiti/Nydia track, April 17th

This is an interesting coastal walk with a wide variety of plants. The climbing *Metrosideros* species were a challenge with their varying leaf forms. Another interesting puzzle was differentiating between *Dichondra repens* (Mercury Bay weed), *Centella uniflora*, both natives, and young *Mycelis muralis* (wall lettuce), an exotic. It is always special when something unexpected turns up and this time it was *Trichomanes elongatum*, a bristle fern which grows on deeply shaded banks.

Following our pot-luck dinner and AGM on April 18th, Rebecca Bowater gave a slideshow and talk on the plants and flowers of South Africa. Perfect weather and the many colourful flowers made us all very envious.

Future trips:

July 17	Jimmy Lee Creek, Richmond. (Leader Pamela Sirett, Phone (03) 542 3414)
August 21	Moss Bush, Riwaka. (Lawrie Metcalf, (03) 540 2295)
September 18	Pohara Beach Cliffs, (Shannel Courtney, Phone (03) 546 9922)
Oct 16	Kahikatea track, Grampians (Sally Warren (03) 546 6637)
Nov 20	Mistletoe Bay, Anakiwa orchids, (Don Pittham (03) 545 1985)
Dec 18	Weekend camp (see below) (Cathy Jones (03) 546 9499)
Jan 15, 2006	Mt Arthur (Tim McArthur (03) 548 6437)
Feb 19	Raglan range (Cathy Jones (03) 546 9499)
Mar 19	Trig K, Canaan (Rebecca Bowater (03) 545 1260)
Apr 16	Easter camp (Don Pittham (03) 545 1985)
May 21	Esson Valley, Picton (Pamela Sirett (03) 542 3414)

Camp programme:

Labour weekend, 21-24 October, Oyster Bay, Port Underwood	Julie McLintock 545 0989
Dec 16- 18	Peggioh, South Marlborough Cathy Jones 546 9499
Anniversary weekend, 27-30 January 2006, Collingwood Kaituna\ Mt Burnett (to be confirmed)	Shannel Courtney 546 9922
Easter, April 13-17	Matakitaki (to be confirmed) Don Pittham 545 1985

Talk programme:

June 20	Rock wren & tuatara, Peter Gaze DOC Nelson
July 18	Plants of Sikkim & Bhutan, Sally Warren
Aug 22	Member's plant slides, Don, Kay, Shannel, Cathy, Rebecca.
September 19	Craspedia taxonomy, Kerry Ford Landcare Research
April 24 2006 AGM	Datashow of NBS field trips, Trevor Lewis
May 22 2006	Alpine plants, Cathy Jones

President: Cathy Jones (03) 546 9499 Flat 2, 5 North Rd, Nelson. Email: cjones@doc.govt.nz

Treasurer: Trevor Lewis (03) 547 2812 22 Coster Street, Nelson. Email: tandjlewis@actrix.co.nz

■ **Canterbury Botanical Society**

FEBRUARY CAMP REPORTS

Monday 7 February – Pukaki Reserve, on the road to Mt Cook National Park

This reserve was established as in the 1980s, in order to prevent the loss of an interesting flora, especially *Hebe cupressoides*, through overgrazing. The species found in the wet areas and tarns near the road included *Ranunculus glabrifolius*, *Hydrocotyle sulcata* and *Carex flaviformis*; *Glossostigma elatinooides* was flowering on a partially submerged rock. Within the scrub splendid specimens of *Hebe cupressoides*, one bush over one metre tall, were soon found. Other shrubs included *Olearia odorata*, *Coprosma cheesemanii* and *Aristotelia fruticosa*, and, on the ridge, a *Carmichaelia petriei* some two metres tall. *Parsonsia capsularis*, *Rubus schmidelioides*, and *Clematis marata* sprawled over the shrubs. Orchids included *Prasophyllum colensoi*, *Microtis unifolia* and *Microtis oligantha*. Cotoneaster, wilding pines, and patches of the exotic grass *Nardus stricta* were present, but the appearance of the vegetation was very encouraging, with at least one member reporting considerable regeneration of native shrubs compared to a few years ago. *Paul Maurice*

Tuesday 8 February – Climb up to the Red Lakes on Mt Sebastopol

Plants that were seen included *Hebe pauciramosa*, *Pentachondra pumila*, *Ranunculus lyallii*, *Parahebe decora*, *Pterostylis venosa*, *Aciphylla scott-thomsonii*, *A. aurea*, *Phyllocladus alpinus*, *Podocarpus nivalis*, *Dracophyllum kirkii*, *Brachyglottis haastii*, *B. bennettii*, *Celmisia lyallii*, *C. semicordata*, *C. sessiliflora*, 4 species of *Chionochloa* and *Gentianella corymbifera*. Energetic climbers went to the top of the mountain to see how high the *Phyllocladus alpinus* went. Result: about 300 feet above the Red Lakes, and on the way up they saw many more species including *Hebe haastii*, *Aciphylla montana*, *Anisotome flexuosa*, *Gingidia montana*, *Lobelia linnaeoides* and *Leucogenes grandiceps*.

Anne Acton-Adams

Wednesday 9 February – Sealy Tarns, Hooker Valley

At the track edge in the Hooker Valley *Acaena dumicola* (= scrub-living) was seen. The flowers (and fragrance) of *Carmichaelia grandiflora*, accompanied most of our ascent to the Tarns. Nearer the Tarns (about 1000 m), we spotted *Leucogenes grandiceps* and *Forstera sedifolia*, both in flower and *Aciphylla divisa* and *A. crenulata*; *Astelia petriei* was common in nearby gullies. Around the Tarns the comb-like sedge, *Oreobolus pectinatus*, was common while *Isolepis (Scirpus) aucklandicus* occurred at the Tarn edges. Those who reached Mueller Hut found the following edging the residual snow - *Celmisia hectori*, *Ranunculus sericophyllus*, the uncommon *Hectorella caespitosa*, and *Chionocloa oreophila*.

Trevor Blogg

Thursday 10 February – Tasman and Hooker Valleys

Our walk began in terminal moraine shrubland dominated by matagouri, snow totara, *Aciphylla aurea*, and a range of divaricating shrubs. For the first time on camp so far, the tiny mistletoe *Korthalsella clavata* was very common and occurred on at least 5 hosts. At Blue Lakes *Potamogeton cheesemani*, *Eleocharis acuta*, *Lilaeopsis ruthiana* and *Rorippa palustris* often gave way to a mixed turf of the three mat-forming coprosmas and then the shrubland. It was good to see *Olearia fimbriata* for the first time. After a lunch under matagouri, we moved on to the Hooker Valley. The fairly young moraine vegetation supported similar shrubland to the Tasman, but the bluff near the bridge saw a totally different habitat where many plants more commonly found at higher altitude grew. *Leucogenes grandiceps*, *Celmisia bellidioides*, *Schizeilema haastii*, *Parahebe linifolia* and *Myosotis macrantha* and *M. forsteri* were amongst the plants that kept us very interested up until 8 pm.

Geoff Henderson

April Field Trip - Eyrewell Forest

Chris Ecroyd and Ecki Brokerhoff of the Forest Research Institute led members to a number of sites within the forest area to view the understorey plants. The forest, situated on the north side of the Waimakariri River, covers approximately 7000 ha and is mainly planted in *Pinus radiata* with some plantings of *Pinus nigra*. A range of understorey plants were found at the various sites with *Kunzea ericoides* and *Pomaderris ericifolia* aff. locally abundant. Some of the other understorey plants found were: *Cyathodes juniperina* and *C. fasciculata*, *Senecio glomeratus*, *Carmichaelia australis*, *Geranium microphyllum*, *Pseudognaphalium luteoalbum*, *Rytidosperma gracilis* and *Cassinia leptophylla*. Don Bell

May Meeting

Sue Molloy gave an illustrated talk on the origins of the Canterbury College Biological Station at Cass. The photographs were given to the Botanical Gardens by Diane Thomson from the late Andrew Thomson's archive. Sue gave biographies of some of the students and staff pictured (1915).

May Field Trip –Grampians Station

Grampians Station is on the upper Pahau River, Tekoa Hills at c.300 m. The river is deeply incised in sandstone/siltstone with marine basalt. A kanuka-fringed gully yielded a range of diverse broadleaved species with much lancewood (*Pseudopanax crassifolia* and *P. ferox*) and kowhai in the canopy and many herbs and ferns in moister shade. Remarkable was the abundance of *Raukahu anomalus* (*Pseudopanax*) in the undergrowth. Saplings of *Hoheria angustifolia* (narrow-leaved lacebark) were seen. Under kanuka, *Acaena juvenca*, with round leaflets and entire stipules, was abundant. In the afternoon we took to the riverbed lower down the valley in our three 4-wheel drives to reach a terrace on which stood five matai up to 70 cm dbh. There were abundant matai saplings and the dominant understorey species was *Lophomyrtus obcordatus*. Unfortunately the canopy was wreathed with old man's beard (*Clematis vitalba*), with the vegetation on the opposite side of the valley already flattened by the climber.

Bryony Macmillan

FUTURE EVENTS

July 1 Speaker: Joe Cartman: "Travels in British Columbia" **July 2** Field Trip: Trees for Canterbury, Charlesworth Street, Linwood. Meet at nursery 9:30am.

August 5 Speaker: Nicholas Head, DoC Botanist: to be announced. Debra Wotton, our student grant recipient, will give a short report. **August 6** Field Trip: Botanic Gardens visit, Max Visch.

September 2 Speaker: Prof. J Lovis: "Ferns". **September 3** Field Trip: Visit Paul Michael's Nursery "Fern Factor" at Templeton.

October 7 Speaker Anita Spencer DoC Biodiversity Ranger: to be announced **October 8** Field Trip: Omahu Bush.

November 4 Speaker: David Norton: "Tiromoana Bush". **November 5** Field Trip: Vicinity of Kate Valley

December 2 Speaker: Hugh Wilson: "Unique Stewart Island". **December 4-11** Camp: Stewart Island

December 31 – January 7 2006 Alternative Camp: Awakino Ski Field

Secretary: Margaret Geerkens (03) 352 7922 PO Box 8212, Riccarton, Christchurch.

Email: bert.marg@xtra.co.nz

■ Botanical Society of Otago

Shag Point field trip, 18 September

Dr Lisa Russell led an interesting exploration of the sea shore at Shag Point, examining seaweed growth forms and communities in the intertidal zone.

5 October meeting

Dr Dave Kelly talked on "The current state of bird-plant mutualisms in New Zealand" and discussed the risks to plants adapted for pollination by birds if bird numbers decline.

3rd Annual Geoff Baylis lecture – 13 October

Our distinguished speaker was Henry Connor, co-author of Flora of New Zealand Volume V. Dr Connor spoke on 'A modern taxonomist in a postmodern era – Servant or Master'. Among many pearls of wisdom he emphasised that a master taxonomist should always think of the users' needs.

Nugget Point weekend field trip 16 – 17 October 2004

The botanising began at McLean Falls in the deep south, one of the few Otago sites for *Pittosporum obcordatum*. It occurs in a frosty hollow with *Coprosma decurva*, *C. rotundifolia*, *Olearia ilicifolia* and *Melicactus flexuosus*. Next stop was the Tautuku River estuary where a boardwalk gave superb access across extensive swathes of *Apodasmia similis* through which fernbird made several brief appearances. The group spent the night in the lighthouse keeper's house, perched high above the rugged cliffs at Nugget Point. Sunday was spent exploring the remnant of original forest cover and the wind-shorn shrublands comprising several hundred *Olearia fragrantissima*. An impressive list of local lichens was also made. During the afternoon we visited an *Olearia hectorii* restoration site on private land in the Owaka Valley. A population of several old trees has been fenced off and supplemented with nursery-grown plants and elements of the original forest are being re-established. In sites where the exotic grass cover had been knocked backed with herbicide, natural regeneration of the *Olearia* and other trees was occurring. Possum control at the site has benefited the mistletoe *Tupeia antarctica* which had established on an old *O. hectorii* host.

11 November meeting

Beatrice Hale, author of 'The New Zealand Pleasure Garden' talked on Plants with a Purpose, and broadened our horizons on the uses of plants.

8 December meeting

Diane Campbell-Hunt spoke on 'Developing an urban sanctuary – the Karori Experience' and its relevance to the proposed Orokonui Sanctuary near Dunedin.

28 December – 6 January. Wellington Botanical Society Summer trip, Western Canterbury

Three keen BSO members joined the Wellington crowd for 8 glorious days of botanising from the kettle holes of Spider Lakes and the banks of the Rakaia River to the alpine tops of Mt Hutt, Mt Somers and Little Mt Peel. Highlights included *Notothlaspi rosulatum* and *Ranunculus haastii* in full

flower on the scree slopes of Mt Hutt, and finding the rare lichen *Ramalina pollinaria* by the track to Sharplin Falls.

FUTURE EVENTS

Wednesday 8 June Philip Dunn from Ribbonwood Nursery will talk on eco-sourcing local plant material for use in restoration projects.

Saturday 18 June John Barkla will lead a day trip to Sutton Salt Lake, near Middlemarch, NZ's only inland saline lake.

2nd Audrey Eagle Botanical Drawing Competition. Drawings from BSO members will be accepted until 31 August 2005. Entry forms available on the website: <http://www.botany.otago.ac.nz/bso>.

President: David Orlovich, david.orlovich@botany.otago.ac.nz

Secretary: Robyn Bridges, robyn.bridges@stonebow.otago.ac.nz, ph 479 8244, P O Box 6214, Dunedin North

■ Other Botanic Society Contacts

Wakatipu Botanical Group

Chairman: Neill Simpson (03) 442 2035

Secretary: Lyn Clendon (03) 442 3153

REQUEST

■ New Zealand Indigenous grasses (Poaceae) wanted to complete chromosome survey

Due to the recent collecting efforts of Graeme Jane and Mike Vermont we now require just 13 taxa (see below list) to complete our chromosome survey of the indigenous New Zealand grass flora. In addition to these taxa, we are keen to examine further live material of *Puccinellia walkeri* subsp. *walkeri*, as the only specimen of this plant we have received (from Ti Point, near Bluff) had $2n = 35$, and proved to be sterile.

Samples should be collected only where it is appropriate to do so, and in quantities unlikely to cause harm to the plant populations and/or environment. Please remove small rooted pieces, wrap these in damp tissue paper and post to either of the addresses provided marked "Live Plant: please refrigerate on arrival".

As with previous requests please ensure that a suitable sample for use as a voucher specimen to be lodged in a Herbarium is provided, as most (if not all) of the remaining grasses to survey are unlikely to flower in Auckland's mild, humid climate.

Note also that plants should not be removed from areas unless you have the appropriate permit of permission from the landowner.

Grasses Required

Agrostis oresbia

A. subulata

Deschampsia pusilla

Hierachloe cuprea

Lachnagrostis pilosa subsp. *nubifera*

L. tenuis

Poa aucklandica subsp. *rakiura*

P. celsa

P. cookii

P. maia

Puccinellia walkeri subsp. *antipoda*

Rytidosperma merum

Zotovia acicularis

B.G. Murray, School of Biological Sciences, University of Auckland, Private Bag 92019, Auckland,
P.J. de Lange, Terrestrial Conservation Unit, DOC Private Bag 68908, Newton, Auckland

NOTES AND REPORTS

■ **Suggested corrections to information in the 2nd edition of An Illustrated Guide to Common weeds of New Zealand, by Roy, Popay, Champion, James and Rahman**

Some of you will be familiar with this book, and several people have already suggested changes. We are investigating the production of a LucidKey CD based on the book. This will include a computer key to the species listed in the book, a key that can be accessed on any feature. So that this CD can be as accurate as possible, we would be grateful if you would let us know of any more errors you have spotted in the book.

Weeds are constantly expanding their ranges, so we would appreciate any information you have on the distribution of the species listed so that, again, the CD can be made as up-to-date as possible. We have listed below some of the changes we and others have observed.

New weeds are constantly appearing, and we would be interested in your views of new weeds to include in the book. Note that the book (and the CD) refers to common weeds. We deliberately haven't included the very rare, like water hyacinth, salvinia and Johnson grass.

A further point is that the authors don't make anything from the sales of this book. Any profits go to the New Zealand Plant Protection Society for the benefit of plant protection in this country.

Corrections

- p 5 *Carex longebrachiata*, photo needs rotating through 90 degrees - the fruiting heads hang in filiform peduncles.
- p 28 Note that the scape of *Nothoscordum* is terete (circular in cross-section) as opposed to the triangular one of *Allium triquetrum*.
- p 37 Photo of *Hydrocotyle moschata* is probably *H. microphylla*.
- p 42 Top picture is probably *Colocasia esculenta* and not *Alocasia brisbanensis*.
- p 59 Top two pictures are of *Carduus acanthoides* and not *C. tenuiflorus*.
- p 67 *Conyza bilbaoana* not spelt correctly.
- p 79 **Related species** *Lactuca serriola* leave tend to be held on their sides.
- p 81 top picture is *Hypochoeris radicata*.
- p 83 *Matricaria discoidea* (not *dioscoidea* as in Flora NZ Vol. IV).
- p 87 *Pseudognaphalium luteoalbum* is an aggregate species, of which some entities (unnamed as yet) are indigenous or even endemic to NZ. Therefore should mention that it is a species complex.
- p 94 The pictured fruits of *Soliva* are only part of the range of forms, see Flora NZ vol. IV p. 174.
- p 105 Picture at top right is *Myosotis discolor*.
- p 159 Picture on bottom left is also of *Teline monspessulana*.
- p 169 *Racosperma*. this was the genus in Flora NZ Vol. IV, but the belief of many Australian taxonomists is that NZ 'jumped the gun' in using this genus *over* *Acacia*. Heenan et al. (1999) [NZJBot 37:632] discuss this, and revert to using *Acacia*, as they did also in Heenan et al. (2002) NZJBot 40:162.
- p 169 *R. dealbata* should be *R. dealbatum* and *R. longifolia* should be *R. longifolium*.
- p 196 *Melissa officinalis*, photo is actually of a *Mentha* sp.
- p 207 Both photos are *M. neglecta*.
- p 227 picture is of *Passiflora tarminiana*.
- p 233 The new botanical name for sheep's sorrel is *Acetosella vulgaris*.
- p 238 Related species: pale willow weed, not pale willow herb.
- p 251 Native *Clematis* spp. do not only have trifoliate leaves. When it's young, *C. foetida* has 9-foliate leaves (i.e. each primary leaflet is divided into 3 again). *C. australis* (even if you include it in *C. forsteri*) has pinnate to pinnatifid leaves.
- p 260 *Acaena novae-zelandiae*: some believe that this sp. (contrary to its name!) is not native to NZ - i.e. that it was an early import from Australia and actually named after it arrived in NZ.
- p 262 *C. pannosus* is not one of "the main weedy species" in NZ: *C. microphyllus* and *C. lactens* are.
- p 279 picture at bottom right is *Verbascum creticum*.

Changes to Distribution notes (unless otherwise noted)

- p 29 *Alternanthera philoxeroides*: alter toone or two sites in Waikato, Bay of Plenty and Volcanic Plateau.
- p 40 *Sison amomum*: alter toAshhurst in Manawatu and Wanganui.
- p 43 *Alocasia brisbanensis*: alter toBay of Plenty, Manawatu and Nelson City.
- p 46 *Tetrapanax papyriferus*: alter toNew Plymouth, Wanganui and Hutt Valley in NI.
- p 47 *Araujia sericifera*: alter toof Northern NI and Wanganui.
- p 55 *Artemisia verlotiorum*: alter to ... Bay of Plenty and Wanganui northwards.
- p 91 *Senecio skirrhodon*: alter to ...Palmerston North, Wanganui and....
- p 100 *Berberis darwinii*: alter (in related species)Wellington, Wairarapa and Manawatu in NI.....
- p 111 *Cardamine hirsute*: delete, except Taranaki,...
- p 132 *Euonymus europaeus*: alter to ...Palmerston North, Levin, Wanganui and Taihape.
- p 133 *Ceratophyllum demersum*: alter to ...Hawkes Bay, Manawatu and Wellington in NI.
- p 149 *Dryopteris filix-mas*: alter toGisborne, Wanganui and Wellington.....
- p 152 *Calluna vulgaris*: alter to ...Volcanic Plateau, North Taranaki and
- p 154 *Euphorbia maculate*: alterfrom Bay of Plenty and Waikato to Northland and occasionally in Manawatu. Locally in Nelson and Christchurch.
- p 156 *Ricinus communis*: alter to ... Bay of Plenty northwards, Hawkes Bay and Wanganui.
- p 166 *Ornithopus pinnatus*: alter (in related species) ...northwards and occasionally in Manawatu.
- p 168 *Psoralea pinnata*: alter to ...Coromandel Peninsula, Taranaki and Wanganui.
- p 169 *Racosperma mearnsii*: alter to Palmerston North and locally in Manawatu to Taumarunui.
- p 184 *Myriophyllum aquaticum*: deletesouthern Manawatu.....
- p 191 *Myrtillea rosea*: alter to ...Wairoa, Masterton and Wanganui.
- p 193 *Galeobdolon luteum*: alter to ... Bay of Plenty, Levin, Wanganui and Taihape,.....
- p 195 *Lamium amplexicaule*: alter to ...in Hawkes Bay and Manawatu,
- p 198 *Origanum vulgare*: replace 1st sentence with Occasionally in NI near Hamilton, Katikati and Wanganui and locally common in SI as a road-side weed.
- p 204 *Linum trigynum*: alter toHawkes Bay, Manawatu and Wellington.
- p 206 *Lavatera arborea*: delete (except Taranaki)
- p 214 *Ligustrum lucidum*: alter to ... Auckland, Waikato and coastal Bay of Plenty, occasional in southern NI.
- p 217 *Ludwigia peploides*: alter (in related species) ...Occurs in Auckland, the Waikato north of Hamilton and occasionally in Taranaki.
- p 226 *Papaver rhoeas*: alter toHawkes Bay, Taranaki and Manawatu.
- p 232 *Navarettia squarrosa*: alter to Hawkes Bay, Volcanic Plateau and Wairarapa
- p 232 *Polygala myrtifolia*: alter to ...New Plymouth, Wanganui and.....
- p 235 *Fallopia convolvulus*: alter to ...Hawkes Bay, Manawatu and Wellington.
- p 247 *Hakea salicifolia*: alter toand in Wanganui and Wellington in NI.
- p 251 *Clematis flammula*: alter (in related species)in northern NI, Wanganui, Nelson
- p 259 *Rhamnus alaternus*: alter to ... Auckland City, Hauraki Gulf islands, Hamilton and Wanganui, occasional in other NI locations.
- p 264 *Fragaria vesca*: alter to... Opotiki, Volcanic Plateau and Wanganui in NI.
- p 265 *Potentilla anglica*: alter (in related species) And Southland, rare in NI.
- p 266 *Rosa rubiginosa*: delete ...in drier east NI.
- p 282 *Ailanthus altissima*: alter to...Masterton, Wanganui, Christchurch.....
- p 284 *Cestrum elegans*: alter (in related species)...Taranaki, Manawatu and northern SI.
- p 288 *Salpichroa origanifolia*: alter to ...Napier, Wanganui, Opunake and Wellington.
- p 299 *Verbena bonariensis*: alter touncommon in the west (except Whanganui and Rangitikei river valleys).....
- p 301 *Viola arvensis*: alter to ... Bay of Plenty, Waiouru and Wellington districts.

Future additions?

Eupatorium cannabinum (hemp agrimony)

Gunnera tinctoria (Chilean rhubarb)

Acacia sophorae.

Ian Popay, popay@xtra.co.nz

▪ **Changes in a riparian forest of Turakina Valley, following floods of February 2004**

Floods in the Wanganui, Rangitikei and Manawatu districts in February 2004 received national publicity for their considerable impacts on people and property. The media said little about flood impacts on natural areas. One riparian forest of the Turakina Valley which had water through most of it was McPhersons Bush, a 9.2 ha reserve owned and managed by the Royal Forest and Bird Protection Society (F&B). John Marsh, who does pest control and other work here and in other reserves for the Rangitikei branch of F&B, guided members of the Wanganui Museum Botanical Group around the reserve on 4 June 2005, i.e., about 16 months after the flood. As we stood outside the entrance on Turakina Valley Road, he told us that the flood had covered this road to about 3 m deep, and remained ponded here for three weeks or more. Just upstream, it had reached about 13 m at a farm bridge over the Turakina River. Except for one elevated part, the reserve was under water most of that time. On our visit, the most obvious impact was the death of whole stands of tawa trees on the river terraces, except for a few trees on terrace rims where there is better drainage and probably less silt. Elsewhere, new silt to a depth of 0.5 m or more appeared to have cut off air supply to the tree roots. Some dead tawa trees were already falling as their roots had rotted. In a few places, *Coprosma* shrubs (*C. robusta* and/or *C. grandifolia*) had also died and the odd kahikatea tree looked stressed – more deaths may yet ensue. What had been an intact canopy dominated by tawa was now open to the sky, allowing an influx of weeds. We recorded the following adventive plants:

Formal name	Common name	Abundance*	Formal name	Common name	Abundance*
<i>Cirsium vulgare</i>	Scotch thistle	c	<i>Ranunculus repens</i>	creeping buttercup	c
<i>Clematis vitalba</i>	Old man's beard	o	<i>Rorippa sp.</i>	watercress	o
<i>Conium maculatum</i>	hemlock	o	<i>Rumex crispus</i>	curled dock	u
<i>Conyza albida</i>	fleabane	a	<i>Salix fragilis</i>	crack willow	u
<i>Dactylis glomerata</i>	cocksfoot	o	<i>Senecio bipinnatisectus</i>	Australian fireweed	o
<i>Digitalis purpurea</i>	foxglove	o	<i>Senecio jacobaea</i>	ragwort	u
<i>Galium aparine</i>	cleavers	u	<i>Solanum chenopodioides</i>	velvety nightshade	u
<i>Holcus lanatus</i>	Yorkshire fog	c	<i>Solanum nigrum</i>	black nightshade	a
<i>Hypochoeris radicata</i>	catsear	o	<i>Sonchus asper</i>	prickly sow-thistle	u
<i>Leucanthemum vulgare</i>	ox-eye daisy	u	<i>Sonchus oleraceus</i>	puwaha	u
<i>Lolium perenne</i>	perennial ryegrass	la	<i>Stachys sylvatica</i>	hedge woundwort	o
<i>Mentha pulegium</i>	pennyroyal	u	<i>Stellaria media</i>	chickweed	la
<i>Myosotis laxa</i>	water forget-me-not	o	<i>Tradescantia fluminensis</i>	wandering Jew	la
<i>Phytolacca octandra</i>	inkweed	o	<i>Verbena bonariensis</i>	purpletop	u

*Abundance ratings: a = abundant; c = common; o = occasional; u = uncommon
l = local (species in small area, but can be common or abundant there)

Fleabane (*Conyza albida*) was probably the most prolific weed through the summer of 2004-05, but the one of most immediate concern for the future of the reserve is *Tradescantia fluminensis*. John did not know this weed in the bush before the flood, but new patches are now common over wide areas of the lower river terraces. The species occurs further up the catchment. Others to target for removal are seedlings of old man's beard and young crack willows growing from buried pieces. Hedge woundwort should also be considered for eradication. Most of the other weeds are short-lived annuals or biennials and should decrease naturally over time, as natural forest regeneration occurs.

Although wide areas of the forest appeared devastated, seedlings of a number of native tree and shrub species were appearing. Some seedlings were dense over many square metres, including kahikatea and tawa. Others noted (abundance ratings as for adventive plants in the above table) were karamu (o), lacebark (u), mahoe (c), titoki (o), pohuehue (o), kawakawa (o), poroporo (u), kanuka (1 seen), rewarewa (o), NZ jasmine (species uncertain) (o), pukatea (lc) and karaka (lc). We discussed the place of karaka in this reserve (it appears to be adventive here) and whether it should be included in the targeted weeds. Young native herbs such as a fireweed (*Senecio glomeratus*) and a willowherb (*Epilobium nummulariifolium*) and young ferns such as *Pteris macilenta* (of NZ authors) are also appearing in disturbed sites. The high density of young tawa seedlings in places suggests that the previously dense, even-age stands of tawa had developed following a major flood event like the 2004 event. The big difference between then and now is the weed presence. For the future of the reserve, the challenge is to let tawa and other species regenerate again, without being swamped by weeds.

Acknowledgements

Our special thanks to John Marsh, and thanks also to Hugh Stewart, Robyn Ogle and Doris Hamling, for helping collect information and for their thoughts about the past, present and future of this valuable reserve.

Colin Ogle and Jim Howard, Wanganui Museum Botanical Group

BIOGRAPHY / BIBLIOGRAPHY

■ Biographical Notes (58) : Roderick MacDonald (1824–1886)

E.J. Godley, Research Associate, Landcare Research, P.O. Box 69, Lincoln.

This pioneer Marlborough collector is referred to in four places in the Supplement to Joseph Dalton Hooker's *Flora Novae-Zelandiae* (1855). The relevant passages are as follows, with the original spellings of Kaikoura and MacDonald retained.

1. p. 327. "I have also received from Dr Monro specimens in a very young state of what may prove to be the *Acaena ascendens* [sic] Vahl of Auckland Island, Fuegia etc. They were collected on the mountains south of Nelson by a shepherd at Dr Monro's request."
2. p. 328. "*Epilobium brevipes* Hook.fil. Hab. Middle Island: Kaikoura Mountains, south of Nelson, alt. about 2–4000 feet, McDonald." The type specimen at Kew also gives this information, but adds: "Dr Munro [sic] coll. by Mr McRae's shepherd" (1).
3. p. 332. "*Ozothamnus coralloides* Hook.fil. Hab. Middle Island: Kaikora Mountains, McDonald (Monro)." "This, which is one of the most remarkable plants in New Zealand, was, together with the following [*O. selago*] collected by Roderick McDonald, a shepherd for Dr Monro upon the Kaikoura Mountains, south of Nelson." The types of *O. coralloides* and *O. selago* at Kew bear the note "McDonald (Macrae's shepherd)" (1).
4. p. 333. "*Senecio monroi* Hook.fil. Hab. Middle Island, mountains of Kaikoura, alt. 2–4000 feet, McDonald (Monro). This plant was collected by a shepherd for Dr Monro and is one of several novelties he has sent from those regions and which presage many more."

The Dr Monro mentioned above was Dr (later Sir) David Monro (1813–77), a pioneer pastoralist in Nelson and Marlborough, who began collecting in 1849 for Sir William Jackson Hooker, Director of the Royal Gardens at Kew, and J.D. Hooker's father (2,3). The MacDonald material was sent to Sir William under cover of a letter dated 5 May, 1854, in which Monro explained as follows: "I have, as you directed, numbered the plants up to 54. All these were collected by myself so that I can vouch for the locality and the guesses at the elevation I am responsible for. There are some other specimens which are not numbered: they were collected for me by a Highland shepherd who has charge of a flock of sheep at the base of the Kaikoura mountains, a very fine civil, hospitable fellow of the name of Roderick McDonald. I asked him, as I was leaving his cottage, to pick up anything he might observe in flower when he was in the mountains, and the result is the collection of specimens which I now forward to you. But the honest fellow is not possessed of sufficient literary abilities to give any description of the plants or estimate the elevation above the sea at which they were found. They may

all however be considered of an alpine character as the lowest part of the run is certainly more than 2000 feet above the sea and the highest part I would think about 4,500." (4)

Sir William replied as follows on 21 Sept. 1854. "The shepherd too has done uncommonly well and should be encouraged to continue to collect by all means." "The Phormium if not new is a very remarkable variety and I am delighted to have the seeds. 25 is a charming new *Epilobium*. The *Thlaspi* is finely in fruit. The supposed new *Raoulia*s are very curious. They are discoveries of the shepherd. All these come just in time for the supplement." (5) And so, on 9 Feb. 1855 (6) only 19 months after he had landed in New Zealand, MacDonald's name was recorded forever in the final pages of Hooker's *Flora Nova-Zelandiae*.

Roderick MacDonald was born about 31 March, 1824, at Dingwall, Rosshire, in the north of Scotland. His parents were Mary and Duncan MacDonald, and he was a shepherd like his father. In March, 1853 – described as "single, 30, shepherd," – he left London on the *Maori* as one of 52 assisted immigrants and arrived in Nelson on 8 June, after a passage of 93 days. From Nelson, Roderick went over to Marlborough to work for William Sutherland McRae, who had taken up 1700 acres in the Awatere Valley in 1850 (7,8,9,10).

McRae's run, which he called Braes of Sutherland, lay on the south side of the Awatere River, between the Jordan and Isis streams. To the south rose the inland Kaikoura Range. MacDonald's cob dwelling "occupied a picturesque position on a small sheltered terrace on the south side of the Jordan stream, where it meets the Awatere, with a spring of clear water at his back door"; and it "became a regular overnight stopping place for travellers" (11). As we have seen, it was on such an occasion that Monro recruited MacDonald as a collector. Again, on 25 March, 1855, when Monro and Dansey were on their way to Christchurch, via the Clarence, they stayed with MacDonald, and Monro spent the evening looking over the plants that MacDonald had collected for him (2,3).

On 21 July, 1857, Roderick married Margaret MacKenzie at George McRae's residence in Nelson. Margaret had come out from Scotland in 1852 and stayed for a time at the Braes of Sutherland. She then went to her brother in Melbourne and spent time elsewhere in Australia before returning to New Zealand. The MacDonald's first child died at birth at the Braes of Sutherland and the second, a daughter, was born on 28 Nov. 1858, at Dungere, near where Seddon now stands and closer to settlement (8,9). In 1859 the family moved to the Wairau Valley where Roderick managed the Delta run, some 11 km inland from Blenheim. This had been bought in 1855 by Dr Thomas Renwick, who laid off part of it as a township, later to be called Renwicktown (12). Here they stayed for 9 years, and here their remaining 4 children were born: 2 boys and 2 girls (8,9).

In 1867 the MacDonalds trekked south to Kaikoura where Roderick had bought a lot called "Burnside" on the Kowhai River. "By means of a dray and walking they reached their destination a month later. The youngest daughter, Elizabeth, was carried all the way by her mother." (13).

For the first few years the MacDonald's home was a sod hut, but about 1874 a house was built. By 1877 Roderick was a member of the committee of St. Paul's Presbyterian Church, and later an elder (13). He died on 11 February 1886, aged 66 years, and is buried in the Kaikoura Cemetery (7,8). His wife Margaret died on 9 July 1918, aged 91 years, and lies beside him (8). Alexander, their elder son, born at the Delta on 10 July 1861, inherited "Burnside" on his father's death. He died on 19 August, 1958, at age 97 and has left recollections of the trek south and the early days in Kaikoura (8,13).

Acknowledgements

I am very grateful to the following for their generous assistance: David Galloway (Dunedin) Monro letter; Librarian, Alexander Turnbull Library (Wellington) Hooker letter; Elaine Hadfield (Blenheim) for research at the Kaikoura and Renwicktown museums; Elizabeth Jensen (Christchurch) for checking Electoral Rolls; Pam Englefield (Christchurch) for shipping notices; John Knox (Christchurch) for tombstone inscription; Pam Garbes (Kaikoura District Museum & Archives); Arthur Healy (Christchurch); and Wendy Weller (Landcare Research, Lincoln) for typing.

References

(1) H.H. Allan (1961): *Flora of New Zealand* Vol.1; (2) R.E. Wright-St. Clair (1971): *Thoroughly a man of the world. A biography of Sir David Monro M.D.*; (3) E.J. Godley (2003): *Biographical Notes* (51), David Monro (1813-1877). *N.Z. Bot. Soc. Newsletter* 73 (Sept.) 24-28; (4) Letter held at Roy. Bot. Gdns, Kew; (5) Letter held at Alexander Turnbull Library, Wn; (6) F.A. Stafleu, R.S. Cowan (1979): *Taxonomic literature*; (7) Death

Certificate; (8) A. & C. MacDonald (2000): MacDonald. *Early settlers register for the Kaikoura District to 1900*. Kaikoura Historical Soc., District Museum & Archives; (9) N. Taylor, S. Jamieson, C. MacDonald (1996): From Scotland to New Zealand. Kaikoura Historical Soc., District Museum & Archives; (10) Anon. (2002): Nelson - New Zealand bound. *Website entry*; (11) A.L. Kennington (1978): *The Awatere*. Marlborough County Council; (12) Anon. (1906): *Cycl. NZ 5: Nelson, Marlborough & Westland*; (13) Anon. (1952): Mr Alex McDonald [sic], Kowhai, celebrates birthday. *Kaikoura Star* 10 July.

PUBLICATIONS

Journal Received

New Zealand Native Orchid Group Journal No. 95 – May 2005
Edited by Ian St George [ISSN 1170-4543]

Original papers in this issue are: Leicester Kyle – Comings and goings; Bruce Irwin and Dan Hatch – *Pterostylis venosa* and *P. humilis*; Dan Hatch – *Pterostylis humilis*: an orchid with a past; Mark Moorhouse – *Stegostyla* "minor".

ADDENDUM

■ Change to citation of adventive *Euphorbia milii* specimen

In the Research Report by W Sykes – Notes on *Euphorbia* and *Crassula* with a revised key to the latter wild in New Zealand, *NZ Bot Soc Newsletter* 79 (March 2005) : 8-16 there was an error in the earliest recorded true escape from cultivation. On page 9, the second paragraph and first sentence in the third paragraph under the description for *Euphorbia milii* var. *splendens* (crown of thorns) should be replaced by the following sentences:

The above description is based on living plants, especially from Rangitoto Island, where it has been collected as an uncommon escape from cultivation, *P. de Lange* 6339 Auckland area, Rangitoto Island, near Gardiner's Gap wharf, 26-1-2005.

"Crown of thorns" thrives in very dry conditions and often grows where soil is limited, e.g. the specimen from Rangitoto quoted above was from plants apparently spreading on lava by detached pieces and layering from the now dead planted parent.

ISSN 0112-6865