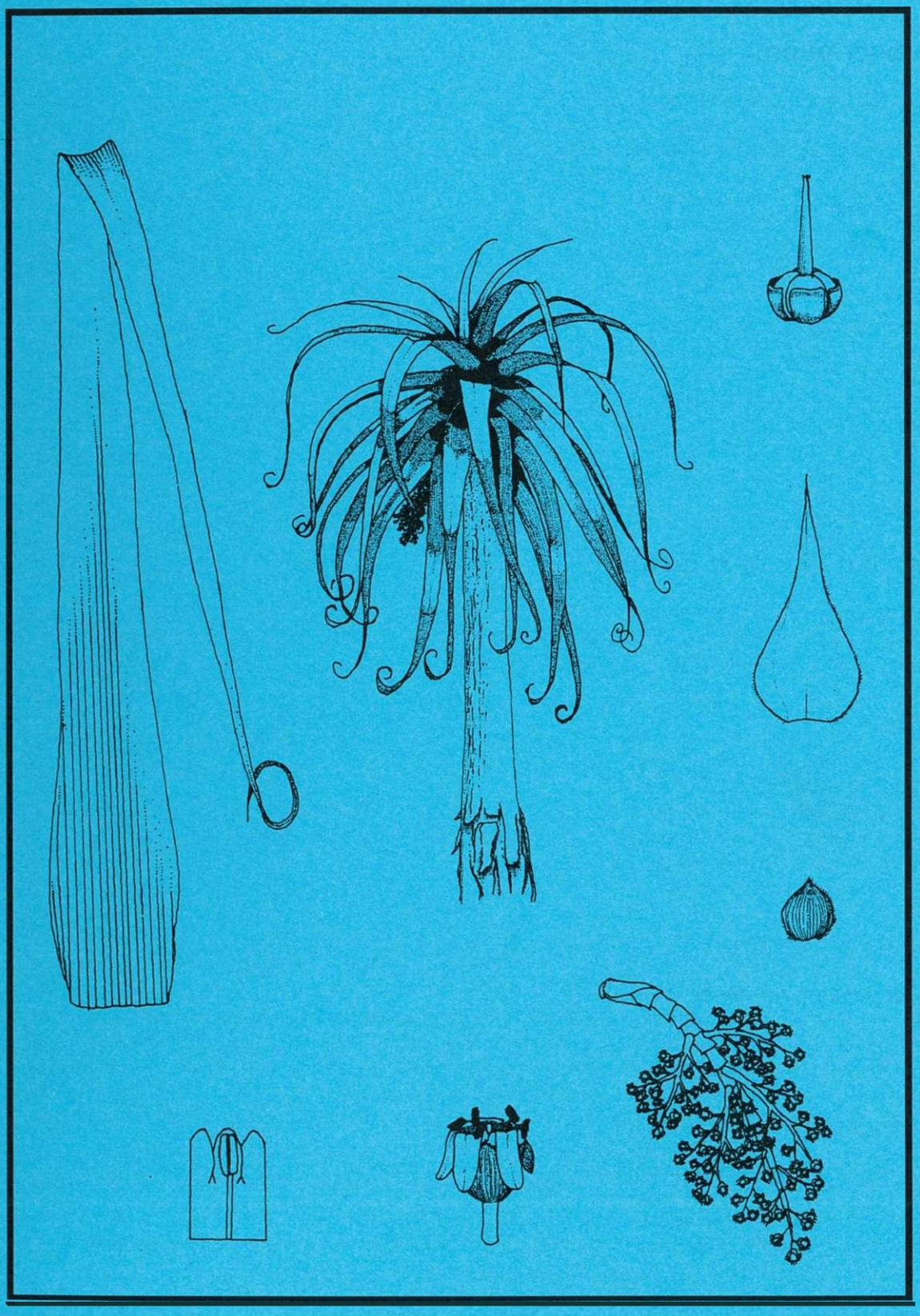
NEW ZEALAND BOTANICAL SOCIETY

NEWSLETTER

NUMBER 72 JUNE 2003



New Zealand Botanical Society

Subscriptions

The 2003 ordinary and institutional subscriptions are $18 (reduced to $15 if paid by the due date on the subscription invoice). The 2003 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 2003 issue (73) is 25 August 2003.

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

Send email contributions to **joytalbot@free.net.nz** Files are preferably in MS Word (Word XP 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 required. 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

Dracophyllum fiordense WRB Oliver
A tree, 1.5 – 5.0 m tall, with sparsely branched, erect branches. Coriaceous leaves are crowded at the tips of the branches in a bromelioid manner, 400-700 x 40-50 mm long and prominently striated with minutely denticulate margins and a conspicuous spiralling, acute apex. Inflorescence is a panicle arising on the stem some distance below the leaves; it is much shorter than the leaves, drooping, dense and pyramidal.

It occurs in montane to subalpine forest and shrubland in the Western Otago and Fiordland areas.

Drawn by **Fanie Venter** as part of his PhD thesis on the revision of the genus *Dracophyllum s.l.* The end product of his study will be a full colour book on the genus and related genera.

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NEWSLETTER

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NEWS

New Zealand Botanical Society News

- **From the Secretary**

Committee election

As there were no nominees for positions on the committee apart from those already on it, the committee for 2003 remains unchanged. It consists of Bruce Clarkson, Colin Webb and Carol West, with Anthony Wright as President and myself as Secretary/Treasurer. Joy Talbot has been reappointed as editor as there were no other volunteers.

Doug Rogan, c/- Canterbury Museum, Rolleston Avenue, Christchurch

Regional Botanical Society News

- **Auckland Botanical Society**

March Meeting and AGM

At the AGM Mike Wilcox became the new president of the society. He then gave a short presentation on the Anacardiaceae family, followed by Rhys Gardner speaking on grasses of the Pacific, and Peter de Lange on the new groupings within the genus *Kunzea*.

March Trip

Wattle Downs, an unpromising looking area on the coastline of the Manukau Harbour, proved to be a refuge for a couple of interesting plants. In a wet hollow surrounded by horrible weed trees, was a large patch of *Gratiola sexdentata*, a plant that is now very rare in the north. On the shelly strand between the mangroves and the shore were many plants of *Suaeda novae-zelandiae.*

April Meeting

Eric Scanlen, a member of the NZ Native Orchid Group, showed his wonderful stereo slides of almost all of our orchid species. The members of the large audience were supplied with the special glasses needed to gain the 3D effect that makes his slides so realistic, and were introduced to the many name changes that have taken place within the Orchidaceae.

April Trip

Sandra and Robin Court have fenced and carried out predator control in the bush that covers a large part of their Dairy Flat property. A covenanted patch was explored in the morning, and in the afternoon an area of mixed growth, ranging from regenerating gorse to mature trees, rounded off the day's activities.

May Meeting

Mike Wilcox spoke to the proposal that Ewen Cameron be elected as an Honorary Life Member of the Auckland Botanical Society. This was seconded and passed with acclaim.

The speaker for the evening was Bruce Salmon, author of the book, *Carnivorous Plants of New Zealand*. Bruce has travelled widely to indulge his interest in these plants, and had some live exhibits to complement his talk. His slides brought us up to date with the latest taxonomic thinking on the New Zealand species.

May Trip

Jack Harper, a keen conservationist, welcomed the ABS onto his farm on the Awhitu Peninsula, an area of rolling hills on consolidated sand, with steep-sided, eroded gullies. Jack has fenced most of the bush and swamp areas on his farm, and has plans to carry on with this work. The bush contained huge puriri, many mangeao, and some kauri on the ridges. The chief glory was the ferns, with giant fronds of king ferns arching over the streams, and, in places, a ground cover of *Asplenium lamprophyllum*. Several plants of *A. hookerianum* were also seen.

FORTHCOMING ACTIVITIES

4 June	Thermal Flora, Chris Ecroyd
21 June	Mt Wellington quarry
2 July	Western Australia, a botanical 'hot spot', Ross Beever
19 July	Logues Bush, Tomarata
6 August	Yunnan, China, Jack Hobbs
16 August	Muriwai area

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

- **Wanganui Museum Botanical Group**

Evening Meetings: first Tuesday of each month in Wanganui Museum's Davis Lecture Theatre (except 7 Oct – see below); commencing 8 pm summer (i.e. daylight saving) time; 7.30 pm winter time (April-October).

COMING MEETINGS

3 June	Ashley Cox (Wellington) - At home with the plant collector - when a plant's environment is your environment
1 July	Jocelyn and Ian Bell, Robyn and Colin Ogle - North Queensland
5 Aug	(AGM) Bob Hays - What *should* grow where around Wanganui, based on climate mapping
2 Sept	Botanical Show and Tell (Convenor: Graeme La Cock)
7 Oct	*(starting at 7pm in Museum Classroom).* Practical evening on Family Iridaceae. Guides: J & I Bell, C Ogle
4 Nov	Astrid Dijkgraaf - What caught my eye in Singapore
2 Dec	End of year social evening.
3 Feb 04	Vonnie Cave - Travels and a Congress in Eastern China

COMING TRIPS

28 June	Corballis' Bush, Marangai, SH3.
2 Aug	Bells' garden, Bastia Hill, Wanganui.
31 Aug	St Johns Hill Green Belt and Victoria Park, Wanganui.
4 Oct	Gordon Park, No. 3 Line, Wanganui East - Jerusalem cherry control
2 Nov	"Paloma" (Higgies' gardens), Denlair Road, Fordell.
29 Nov	"Westoe", Kakariki, east of Marton
31 Jan 04	Paengaroa Reserve, Mataroa, near Taihape.

TRIP REPORTS (abbreviated)

31August 2002: Carvers Bush and Johnstons Bush, Tokomaru West, Brunswick

The smaller of the reserves, Carver's 0.36 ha block, was ringed by large macrocarpas. The reserve had been extensively planted with exotics and natives outside their natural ranges, such as kauri, two species of *Nothofagus*, puriri and *Adiantum formosum*. Koatanui Scenic Reserve is 8.5 ha, predominately tawa and some podocarps. There were some very large tawa, pukatea, kahikatea and stands of tall mamaku. With fences in disrepair, there were more species in the steeper parts because forest on the easier contours had been severely browsed. Weeds of concern were Jerusalem cherry, barberry and boxthorn. *Jim Campbell*

28 September 2002: Hollards' Gardens, Kaponga, near Egmont National Park

The original garden was started 75 years ago by Bernie Hollard, so there are a lot of old trees. A newer section has been in development for the last 15 years and covers about 4 ha. There is a small patch of native bush, with monstrous native passion vines (kohia). The Taranaki Regional Council has taken over management of the gardens, and is preparing a strategic plan. Our visit was in fine weather – we could even see the mountain. Greg Rine, the manager of the gardens for 13 years, showed us around. Some highlights were a weeping macrocarpa, golden totara, a golden *Pinus radiata*, a lemony version of bear's breeches (*Acanthus mollis* "Hollard Lemon"), as well as a range of hollies and other pines. Some of the grandest rhododendrons were of a variety 'Milton Hollard' (bred by Bernie Hollard and named after his son). *Graeme La Cock*

30 November: Dry forest remnants between Halcombe and Kakariki, Rangitikei

Jim Howard of 'Westoe' showed us first, in a paddock near the Rangitikei River bridge, the original golden totara tree from which most of the golden totara in cultivation has been derived. He told the history of the tree, including its genetic origin as a natural hybrid between lowland totara and *Podocarpus acutifolius*, a western South Island species (determined by Dr Brian Molloy). Sadly, the tree has died in this year's severe drought. Our main destination was the Rangitawa Stream nearby, to explore kanuka-totara stands on the meandering stream bed and flights of gravel terraces. We parked by a disused concrete post factory where there were many plants of a robust, flowering, wild sage (*Salvia verbenaca*). The forest was grazed throughout except where the terrace scarps were too steep, with a wide range of plant habitats from wet to dry, shaded to exposed. We saw 108 native vascular plant species, the rarest in a regional sense being bamboo ricegrass (*Microlaena polynoda*), the tussock-forming *Carex raoulii* and an unnamed *Pellaea* fern. Others with a patchy or local distribution in the region included ribbonwood, *Libertia ixioides*, *Parietaria debilis*, leafless lawyer and *Australina pusilla*. *Colin Ogle*

1 February 2003: Karioi Forest wetlands near Ohakune

Nick Singers of DoC Turangi met us near Tangiwai on SH49. Our first wetland was close to the road where Nick and others have set up habitat management trials mainly for rare orchids, *Pterostylis micromega* and *Prasophyllum* aff. *patens*. We were fortunate to see a flowering plant of the former and many photos were taken. There was also the normally floating red sedge, *Schoenus fluitans*, lying on almost dry mud. About 250 m from our first wetland was a basin bog surrounded by pines and dominated by *Baumea* sedges (probably mostly *B. teretifolia*, though we couldn't find any flower heads). Although plant diversity seemed low here at first sight, we fanned out across the area and saw quite a range of herbaceous plants, including a flowering *Prasophyllum* that Nick said was unnamed but related to *P. colensoi*. Among sparse manuka was *Lachnagrostis elata*. Our last stop was at Rangataua in DoC-managed land. Small pockets of swamp lay in hollows within previously logged mountain beech forest, but the greatest excitement was probably a large flowering plant of yellow mistletoe (*Alepis flavida*). The swamps were extremely weedy compared with the bogs we'd seen earlier in the day, including very common Darwin's barberry (*Berberis darwinii*) and *Glyceria striata*, a North American grass with few NZ records. Dominant native species in different spots included *Carex secta*, *Gahnia xanthocarpa* and *Astelia grandis*, with juvenile pokaka that looked remarkably like *Pittosporum turneri* (which has been recorded somewhere in the Rangataua area decades ago). *Colin Ogle*

5 April: Lake Pauri, Wanganui

This is one of a string of dune lakes and other wetlands between the Kapiti coast and South Taranaki. Only a minority have some kind of reserve status. The owner of Lake Pauri had said the lake was at a record low level and the lake margins could hardly have been easier to explore. We even walked across water lilies without getting wet feet. A downside was that cattle had also penetrated further into the swamps than probably happens most summers. In a sheltered 'bay', drying mud had cracked into polygons, their tops supporting mat plants such as *Centipeda elatinoides*, batchelor's button, *Ludwigia palustris*, and *Amaranthus lividus*. The open shore was variously silty, sandy or gravelly and gave a range of habitats for more mat plants. These included *Glossostigma elatinoides, Hydrocotyle hydrophila, Lilaeopsis* sp. and, more rarely, *Pratia perpusilla, Callitriche petriei* and *H. sulcata*. Grey willows grew throughout some fringing swamps, but were sparse enough to have beds of harakeke and *Carex secta* and, sometimes, *Baumea rubiginosa*, with scattered shrubs of *Coprosma propinqua*. These swamps had some of the region's rarer plants; swamp millet (*Isachne globosa*), *Hydrocotyle pterocarpa* and *Crassula ruamahanga*. Lake Pauri is now the third lake in this district known to have *C. ruamahanga*. *Colin Ogle*

Chairman: Ian Bell (06) 343 7686 115 Mount View Road, Wanganui
Secretary: **Robyn Ogle** (06) 347 8547 22 Forres Street, Wanganui

- **Manawatu Botanical Society**

TRIP REPORTS (abbreviated)

Tuapaka Farm bush – Aokautere, 4 August 2002

This 10.4 ha area of regenerating bush is in a very steep sided gully on one of the local Massey

farms. Our group climbed up above the bush on the farm track then descended via one of the two stream courses compiling a species list as we went. This involved much slipping and scrambling through broom on the drier slopes and mahoe/ kawakawa dominated bush in the gully. The botanical highlight of the area was the presence of three isolated black beech trees, probably the most northerly occurrence at the southern edge of the Manawatu Gorge beech gap.

Ngahere Park – 7 September 2002

We visited the first project of the Manawatu Green Corridors group, who have begun planting locally sourced material along the stream margins of the Turitea Stream in Ngahere Park, in conjunction with some remnant native bush on the slopes above the stream. A surprising collection of plants occurs around the park with the real gem find a patch of parataniwha (*Elatostema rugosum*), which is now quite uncommon in the region.

Mangatautari excursion 4-8 November 2002

A few keen botanists and some Ecology Group folk made a five day expedition to Mount Mangatautari, near Cambridge, around which there are ambitious plans to erect a predator-proof fence (about 47 km in length) and create a mainland island.

A herbarium collection was made and recce plots, to give an overview of forest types, and permanent seedling plots, for long-term monitoring of responses to possible future reduction in herbivory levels, were put in. The vegetation includes an interesting range of species, although it is rather disturbed round the base of the mountain. Mangeo (*Litsea calicaris*) is the common tree species in the lower reaches, a reminder that it was once widespread, and specimens of 2 m in diameter were not unusual. There is also some fascinating *Ixerba brexioides* forest around 800 m.

PROGRAMME

7 June	Scenic Heights walkway, near Shannon (admission: $3.50 per person)
3 July	Overview of the work of the QEII National Trust – Peter van Essen
9 August	Visit to a local QEII Open Space Covenant

Jill Rapson Ecology, Institute of Natural Resources, Massey University.

- **Nelson Botanical Society**

Moonsilver Forest and Stardew Ridge, Barron's Flat, 16th February 2003

Barron's Flat is an uplifted peneplain which manifests as a peculiar and extensive perched "flat" lying between the Arthur Range and the Takaka Valley, sloping gently to the southeast where it is overlain by remnant lumps of limestone. One of those lumps, Stardew Ridge, was our destination. A small cave at the base of the ridge indicated the start of the limestone, as did numerous lime-loving species such as the climbing rata *Metrosideros colensoi* and the spleenwort ferns *Asplenium lyalli* and *A.* aff. *trichomanes.* A few shiny-leaved saplings of raukawa (*Raukaua edgerleyi*) were spotted along with a massive tree of mountain five-finger (*Pseudopanax colensoi*). Matai was the commonest tree on the ridge, with occasional limestone köwhai, *Uncinia distans, Libertia mooreae*, and *Hebe divaricata* adding to the diversity. The ridge summit allowed fantastic views over Barron's Flat and the Kahurangi mountains beyond. On the trip back we stopped briefly at a weedy wetland in the middle of Barron's Flat, where a short walk into the manuka scrub revealed a very depauperate flora, notably the heaths *Epacris alpina* and *Androstoma empetrifolia* (= *Cyathodes empetrifolia*). Sadly the wetland is being invaded by the introduced heath rush (*Juncus squarrosus*), the soft rush (*Juncus effusus*), and the jointed rush (*Juncus articulatus*). *Shannel Courtney*

Brook Reservoir, 16th March 2003

The Brook catchment is special because exciting plans are afoot to fence it and create a "mainland island" similar to the one in Karori but much larger. Having an area available so close to Nelson is wonderful for local people as well as tourists. Following the track and then the stream bed until it got too steep and enclosed, we saw lots of weeds, but a beginning has been made clearing them. One of our group had been to Karori, and felt that the potential here was much greater. Back down the gorge and a steep scramble upwards rewarded us with several species of *Coprosma* and an amazing number of *Collospermum hastatum* growing on the ground. *Sally Warren*

Easter Camp, Karamea, 17-21 April 2003

Good Friday – Heaphy Track end. Even before reaching the carpark at Kohaihai, we saw *Fuchsia perscandens* cascading down roadside banks. The next exciting find was *Earina aestivalis,* and then we were into nikau, which created a distinctly tropical atmosphere. We found many interesting plants, including *Gunnera monoica* in fruit, an unidentified tree *Dracophyllum*, and an unidentified *Pteris* halfway in appearance between *P. pendula* and *P. tremula*. We had lunch at Scott's Beach, with most of the party continuing north to search for *Lepidium flexicaule,* while the rest of us headed back via the Nikau Loop, finding *Trichomanes colensoi* in a dark spot, and a wonderful long spray of *Earina autumnalis* in flower. *Cathy Jones*

Saturday – Oparara Basin, botanising amongst spectacular limestone arches and outcrops and water-filled sink-holes. The diversity of flora included special plants such as *Ourisia colensoi,* known from only a handful of sites in the South Island, and *Jovellana repens* creeping along the side of the track, as well as *Carmichaelia odorata* and *Blechnum nigrum*. At the overhang of the arches themselves, we were greeted with a delicate carpet of *Poa matthewsii*, and discovered a new locality for the rare hairy-leaved *Parahebe* aff. *catarractae*. After lunch, along the track to the other arch, Moria Gate, we came across *Alseuosmia pusilla,* a small population of the small creeping *Gratiola nana* and the filmy fern, *Hymenophyllum rufescens*. Finally, a trip to Mirror Tarn also revealed some unexpected plants such as the rare aquatic giant milfoil *Myriophyllum robustum*, which has long ropy stems of more than 2 metres reaching the surface, as well as another uncommon filmy fern, *Hymenophyllum lyallii,* on the trunk of a lakeside kamahi. *Shannel Courtney*

Easter Sunday – Fenian Track to Cavern Creek Caves and Adam's Flat. It was a glorious day to be walking in the bush with beech leaves underfoot, banks of *Grammitis ciliata* on one side, and the river far below. After lunch at Adam's Flat of gold mining fame, Shannel led us on a bush-bash to the end of Scorpion Creek track, navigating by GPS. Then it was a walk through limestone country with *Brachyglottis hectorii*, matai, *Lastreopsis glabella*, and *Leptolepia novae-zelandiae.* We climbed up through Tunnel Cave, then back to the main track and a quick walk to the cars ended a truly memorable day. *Sally Warren*

Monday. We packed up and headed south, stopping to do the loop track at Lake Hanlon, where we found the minute *Hymenophyllum armstrongii* on tree trunks near the lake edge, and *Trichomanes strictum* along the track. In the water itself, was *Eleocharis sphacelata,* not a common sight for Nelson-Marlborough people.

FUTURE TRIPS

June 15th	Boulder Bank and McKay Bluff. Leader Gay Mitchell (03) 548 3351
July 20th	John Slow's garden (including discussion on plant families). Leader Liselotte Seckler (03) 545 1413
August 17th	Abel Tasman National Park (Onetahuti Beach to Bark Bay). Leader Jaap Noordeloos (03) 548 7882

President: Cathy Jones (03) 546 9499 Flat 2, 5 North Rd, Nelson. Email: cjones@doc.govt.nz
Treasurer: Gay Mitchell (03) 548 3351 13 Albert Rd, Nelson.

- **Canterbury Botanical Society**

Remarkable Dykes – 5 April 2003.

"A surprisingly rich native flora ... complements the visual and geological values" (Brian Molloy, Botany Division report 1983). 12 members converged on Gebbies Pass from where we made our way along the marked route and track to the Remarkable Dykes. The track isn't botanically remarkable, though an interesting *Coprosma* hybrid was remarked on near Gebbies Pass. The dykes face North, a fact which probably helps account for their rich flora.

A very large clump of *Earina autumnalis*, near the end of its flowering, was probably one of the more photographed features of the day. From its location we could look directly across to a very large plant of *Heliohebe lavaudiana* on the opposite (eastern) dyke. Vegetation on the dykes grades rapidly from largish trees near their base, through bushy vegetation, then perhaps only 100 metres higher, near the top, to low shrubs with an abundance of *Sophora prostrata*, which serves as protection for fine specimens of *Clematis afoliata*. There were many specimens of *Luzula banksiana*, as well as many small *Heliohebe lavaudiana*, both rooted in cracks on the crags. To the species list in the Botany Division report, members were able to add – *Parahebe lyallii, Rubus squarosus, Hypericum graminium, Echionochloa ovata* and *Lachnagrostis sp.* *Trevor Blogg and Susan Wiser*

Secretary: Roger Keey (03) 315 7510 or (03) 358 8513 P O Box 8212, Riccarton, Christchurch. Email: wrtc@cape.canterbury.ac.nz

- **Botanical Society of Otago**

WBS Summer trip, Bay of Plenty 2–12 Jan 2003.

A keen Otago contingent of Audrey Eagle, Moira Parker, Neill & Barbara Simpson, and John & Allison Knight joined the Wellington Botanical Society's trip in the Bay of Plenty this summer. There Graeme Jane and Gael Donaghy of Tauranga had prepared a wonderful array of trips for us, complete with the latest species lists and maps to aid our explorations of the many and diverse plant communities in the area. They led us from the mangrove, *Avicennia marina* subsp. *australasica,* swamps of the coastal estuaries through dense tawa, *Beilschmiedia tawa,* stands to the goblin fog forests of the Kaimai Ranges, from the spectacular red-flowering coastal pohutukawa, *Metrosideros excelsa,* forests to the regenerating kauri, *Agathis australis,* forest of Mt Te Aroha; from the special ferns and prostrate kanuka adapted to the hot soils of Waimangu thermal area to the towering remnant podocarp forests of Whirinaki. Always there was much to see and marvel at – (even a hidden patch of marijuana, *Cannabis sativa*). The Tawari, *Ixerba brexioides,* in full flower, was just as fragrant and magnificent as Geoff Baylis had said it would be.

It was another fascinating, fun, full-on ten days of total immersion botany and I would recommend a summer Bot. Soc. trip to anyone, at any level, who would like to get more familiar with our native plants. *Allison Knight*

Mt Watkin/Hikaroaroa, 15 March

Mt Watkins/ Hikaroaroa (616 m) lies inland some 40 km north of Dunedin. It is "... an oddity – a volcanic hill standing alone amidst a schist landscape..." (Neville Peat, Wild Dunedin, 1995). Previously forested, the reserve is now dominated by grasses, flax, shrubs and herbs amongst large areas of basalt outcrops and ancient screes. Occasional broadleaf and *Pittosporum tenuifolium* occur. On our leisurely walk uphill, *Chionochloa rigida* and *Poa cita* were conspicuous as were several species of *Aciphylla*. Although the reserve fence is rather porous we were able to locate a few healthy *Gingidia montana*. Unfortunately we also found two species of *Hieracium* beginning to make in-roads. *Monica Peters* (abridged)

MEETINGS

"The Botanical Tramper" – Kelvin Lloyd, 12 March

As guest speaker at our AGM in March, Kelvin Lloyd gave us even more than a superbly illustrated talk about the wild and wonderful places he has tramped, more even than the delightful tale of the little dog who wouldn't go home and followed for days over alpine passes. Most importantly, Kelvin showed us how any clued-up botanist who visits out-of-the places can, and should, usefully add to the still sketchy knowledge of plant distribution in this country, by keeping detailed records of plant seen, and by collecting herbarium specimens where appropriate. Thanks to Kelvin's efforts, the extended distributions of some of our less common native grasses such as the snow tussocks *Chionochloa acicularis* and *C. teretifolia*, now follow lines on the map suspiciously like the routes of Kelvin';s wanderings! A thoughtful, good humoured and provocative talk with aserious botanical message that didn't go unchallenged. *Allison Knight*

Walking with Western Australia Wildflowers – Adrienne Markey

Western Australia is second only to fynbos heathland communities in South Africa in terms of species richness (outside of tropical rainforests) and Adrienne's slides reflected this. *Grevillea* spp., *Banksia* spp. and an assortment of other Proteaceous and Myrtaceous species and genera found only in this part of the world dazzled the eye. Adrienne's broad knowledge of the West Australian flora across vast tracts of the state and her magnificent slides so inspired many in the audience that she was asked to lead a Botanical Society tour of south western Australia ASAP! *Ian Radford* (abridged)

FUTURE MEETINGS & FIELD TRIPS

4 June	Talk "Israel – Land of Extremes" – Barbara Wheeler
8 June	Botanical Illustration Workshop – led by Monica Peters
26 July	Lichens on twigs workshop with Jennifer Bannister & Allison Knight

Chairman: David Orlovich Email: david.orlovich@botany.otago.ac.nz
Secretary: Robyn Bridges (03) 479 8244 P O Box 6214 Dunedin North
Email: robyn.bridges@stonebow.otago.ac.nz or bso@botany.ac.nz

- **Other Botanic Society Contacts**

Rotorua Botanical Society

President: Willie Shaw 07 362 4315
Secretary: John Hobbs 07 348 6620 c/- The Herbarium, Forest Research, Private Bag 3020, Rotorua. See also www.wildland.co.nz/botanical.htm

Wakatipu Botanical Group

Chairman: Neill Simpson (03) 442 2035
Secretary: Lyn Clendon (03) 442 3153

Waikato Botanical Society

President: Bruce Clarkson b.clarkson@waikato.ac.nz
Secretary: Karen Denyer Karen.Denyer@ew.govt.nz c/- Department of Biological Sciences, University of Waikato, Private Bag 3105, Hamilton.

Wellington Botanical Society

President: Vicky Froude (04) 233 9823 (home)
Secretary: Barbara Clark (04) 233 8202 (h); (04) 233 2222 (fax); P O Box 10 412, Wellington 6036.

WORKSHOP

19th John Child Bryophyte Workshop 2003

FIRST CIRCULAR

This year the annual John Child Bryophyte Workshop will take place in the Hunua Ranges, the forest - covered range of hills which lie 50 km to the south east of Auckland City, and border the western side of the Firth of Thames. The Workshop will be based at Kokako Lodge, an Auckland Regional Council camp, at Hunua Falls. The dates are from late afternoon Thursday 11th until after breakfast on Tuesday 16th September. This is earlier in the year than usual, with the hope that we may catch more of the bryophytes in reproductive mode. In addition, we hope some participants will take the opportunity to combine our New Zealand John Child Workshop with the Australasian meeting in Melbourne beginning 29 September (for further details of the Melbourne meeting contact Pina Milne Pina.Milne@rbg.vic.gov.au or Niels Klazenga Niels.Klazenga@rbg.vic.gov.au

Novices and old hands all welcome (though we may have to limit numbers) – this is an opportunity to learn more about mosses and liverworts, whatever your current state of knowledge.

The Hunua Ranges rise from sea level to 688m and are a water catchment area; its 4 dams supplying 60% of Auckland's water. Forests are of podocarp/broadleaf, with some kauri, and small areas dominated by hard beech. There are also areas of second-growth forest dominated by kanuka. Field trips are planned to a variety of habitats – including wetlands on the Hauraki Plains, to the south of the Hunua Ranges. Plan to bring a microscope if you can - these will be set up in a temporary lab for study of specimens. Informal talks from participants on matters bryological are encouraged. Presentation media catered for will range from Power-point, to the unaided human voice.

Accommodation is in large bunkrooms, with participants supplying their own sleeping sheet, bag and pillow. Showers and toilets are a short distance from the bunkhouses, but in a separate block. There is the possibility of participants with their own transport staying off site, in more up-market quarters in motels in Papakura (about 10 km from Kokako Lodge). We plan for caterers to supply evening meals. The makings for breakfasts and lunches will be provided. Some domestic chores will be rostered.

The workshop is organised, as usual, on a non-profit basis. We expect the cost will be about $180, including transport during the Workshop. Anyone who is not earning, who would like a subsidy on his or her costs, please indicate this on the return part of the form. Transport can be provided from Auckland Airport, or from Auckland Museum. For those coming by car, Kokako Lodge is readily accessible from Route 1.

A $100 deposit will be called for in the second circular. No financial commitment is needed now.
If you are interested in receiving the second circular please *copy the form below*, fill it in, and post to:

J Child Workshop 2003
c/- Mei Nee Lee
Botany Department
Auckland Museum
PB 92018
Auckland

or put "J Child Workshop" in the subject line and email electronic version to:
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Organising committee:
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19th John Child Bryophyte Workshop 2003
(Indication of interest form, May 2003)

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NOTES AND REPORTS

Notes

- **Cooking with nettles again**

Reading the recipe for the culinary preparation of stinging nettles in the article on Betty Molesworth Allen (Newsletter No 71, March 2003) prompts a reply. However I make no attempt to match, let alone surpass, the elegant recipe for "botanist's creamy nettle soup" given by cookery columnist Elizabeth Luard. Of course, I don't know if Betty's longevity and good health (I also know of her through her "Malayan fruits: an introduction to the cultivated species" published in 1967) can be attributed to consuming stinging nettles although these are certainly reputed in many countries to be "good for you" in many ways. Thus they are valued for their vitamin and mineral content, especially being rich in iron and as a source of chlorophyll. In fact, from perusing a range of herbals and medicinal works as far back as "Culpepper's Complete Herbal" in the 1600s I get the impression that stinging nettles have been regarded in almost the same light as *Aloe vera*, ginseng and Pacific island noni (*Morinda citrifolia*) in respect to the range of symptoms that are said to be alleviated or averted by preparations of them. Our ways of thinking and expression have changed over the centuries of course and in reference to nettles Nicholas Culpepper's comment, "It consumes the phlegmatic superfluities in the body of man that the coldness and moisture of winter has left behind" may seem a trifle quaint although with a smoggy Christchurch winter approaching I think that I get the message.

The following comments and observations are divided into sections based on the three geographical areas in which I have had experience of nettles.

WESTERN EUROPE

The note on Betty Molesworth Allen does not mention the species that she collected in "sunny Andalusia" but from various books from Western Europe that I consulted the nettle used was mostly *Urtica dioica*, perennial stinging nettle, which occurs across temperate regions of the Northern Hemisphere including Spain. In many European countries there are very old traditions of using this nettle for medicine or food dating back at least to the Middle Ages and almost certainly far beyond. But the use of stinging nettles has certainly taken a back seat in modern times. Thus on the East Anglian farm where I grew up we were just about surrounded by this species but I never heard of anyone around using it at that time for culinary or medicinal purposes. Yet as a few extracts from the herbal literature quoted below show, *U. dioica* must have been very widely and commonly used for centuries throughout the British Isles and generally through Western Europe and the distinction between medicinal and culinary uses has often been blurred.

In her attractively illustrated British flora (1873), Anne Pratt writes that nettles were much used in former times medicinally, while in Scotland the young tops were boiled and eaten, especially in early Spring; in fact there they were sometimes cultivated under glass for this purpose. Anne Pratt also states that in the Lena River area of Siberia nettles (probably *U. dioica)* were cultivated as an edible crop. As with other authors before and after she states that nettles were much used medicinally in the past as well as being valued for the yellow dye present in the roots. One recipe she gives recommends boiling nettles for 20 minutes and then to eat with salt and vinegar but I think that I shall stick to my gentle stir fry method lasting less than 5 minutes. In the undated but obviously nineteenth century "The Complete Herbalist" by Professor O. Phelps Brown it is stated that the young shoots are boiled and have been eaten as a remedy for scurvy. With hindsight this seems dubious advice considering what is now known about vitamin C and its properties.

Although I have said that there was a big decline in the use of nettles in the twentieth century there was certainly no shortage of published information on the subject in Europe during this time. This seems to have had a boost in and around World War II when large quantities of nettles, again mainly or solely *U. dioica*, were harvested, at least in Britain. Thus for example in Florence Ranson's "British Herbs (1949) she states that "80 tons were collected in 1942", the plants being dried in airy lofts, after which the leaves were stripped off and sent to drug firms for processing. In her "Herbal Body Book" (1976) Jeanne Rose has a few more unusual suggestions such as nettles being good for the complexion and she advocates nettle baths. Unfortunately no details of preparation for such an exercise are given, perhaps just as well! Like others she feels that nettles "should be eaten often". An even greater nettle devotee was Mary Lavender, for she states in her "Mrs Lavender's herbal Book" of around the middle of last century that "throughout the spring months there is never a week passes but

I serve a dish of boiled nettles at dinner at least twice or three times a week". She goes on to say that if you serve nettles with poached eggs and grated cheese "you will have a dish fit for a king". But for the greatest culinary attachment to nettles that I have ever heard of, see in the Himalayan section below.

In her comprehensive "Encyclopedia of herbs & their uses" (1995), Deni Brown gives a number of beneficial effects of stinging nettles including internally for "slightly reducing blood pressure and blood sugar levels" and helping to control "gout" etc. to externally for "insect bites, and nosebleed". She also suggests cooking "as a spinach-like vegetable" or having the young leaves "pureed for soup" but does draw the line at recipes advocating "using them chopped up for salads". I am sure that we would probably all concur with the last reservation although I find that it takes hardly a minute in temperatures at boiling point to render nettles powerless to sting. Nettle tea I have no direct experience of although again it is said to be beneficial to health, especially to help combat rheumatism according to Elizabeth Cullum ("A Cottage Garden", 1975). This author may have been quoting from well-known Gypsy uses of nettles for rheumatism and other muscular disorders that were publicly highlighted around half a century ago in Britain by the flamboyant Romany known as Gypsy Petulengro. Incidentally, their use of live nettles as a skin stimulant in cold weather has echoes of similar practices by Roman soldiers when they had to endure those miserable British winters long ago. Fortunately the practice seemed to have died away before I arrived on the scene.

HIMALAYA

In the early 1950s I had my first experience of eating nettles whilst in the Himalaya. Nettles had long been popular and still are so in parts of Nepal, especially in the temperate zones. Although I cannot be quite certain after all this time I expect that the main nettle that I had then was the common *Urtica dioica* that still frequently grows around the villages at middle altitudes. In Nepal nettles are prized for food and the young tops are often gathered with forged iron or bamboo tongs. A common method of using nettles in Nepal is to make a nettle sauce by boiling nettle tops with some salt to accompany the doughy staple called tsen that is made by mixing water and millet or cornmeal. Tsen is thus reminiscent of Italian polenta and before eating Nepalis break off a piece of tsen and dip it into the nettle sauce.

I have a recent photograph of a man with a large doko (Nepalese basket) on his back into which he was putting nettle tops. This was down almost in the subtropical zone where the large and more ferocious-looking *Girardinia diversifolia* grows. Although this relation of *Urtica* has more powerful and prominent stinging bristles it is again used in cooking. Then high in the mountains and over in Tibet grows *U. hyperborea* that despite having a coarser texture is used in soups and possibly in other ways similar to the other two species. The first record of nettles being eaten in the Himalaya that I have seen is by J.D.H. Hooker in his "Himalayan Journals: or notes of a naturalist" (1854) where he states that the tops of two species of nettle (he doesn't say which) are eaten in Sikkim. Of course I expect that if one perused the old Sanskrit and other texts one would find earlier references to the use of nettles in the region.

Before leaving the Himalaya I must mention someone who was the greatest consumer of nettles of all time according to legend. The famed Tibetan Buddhist scholar and travelling mystic Milarepa who lived in the eleventh and twelfth century had the reputation of mainly living on nettles for many years, so much so that in Nepalese and Tibetan iconography he is often depicted dark green. Also at certain of the many holy places that he visited he is reputed to have introduced the nettles that still grow there. But I have to very quietly point out that these places and their nearby villages provide just the habitat in which nettles thrive right across Eurasia.

NEW ZEALAND

Turning to New Zealand I agree with our President, who wrote the note on creamy nettle soup that started me off on the nettle trail, that the normally available nettle for eating here is *U. urens*, annual nettle, another widespread Northern Temperate species. *U. urens* is common to abundant in many gardens here whereas although *U. dioica* grows in New Zealand it is scattered and uncommon and I have rarely seen it. However, *U. urens* makes a very acceptable substitute and I often stir-fry it along with other wild greenery such as *Sonchus oleraceus*, puha, *Stelleria media*, chickweed, and the wild form of *Pastinaca sativa*, parsley. Elizabeth Luard suggests watercress as a substitute for nettles and I sometimes combine them. I see that the New Zealand "Botanica-Encyclopedia of Garden Plants" (1997) by Geoff Bryant mentions the herbal value and gives a brief culinary note on nettles, but since

only *U. dioica* is mentioned I suspect that the information is gleaned from an overseas source. Thus he repeats that nettles are valued for medicine and that the young leaves are eaten as a pot herb vegetable or in soups. As I was putting this information together I saw that Piko, the whole food shop that I regularly visit, sells packets of dried Urtica dioica so naturally I had to buy one. However, I decided that they must be intended to use for making infusions because their texture when simply cooked and eaten in the normal way seemed a bit like trying to eat hay.

When thinking about writing this note I naturally wondered what our *U. ferox*, ongaonga or tree nettle, would be like in the pan. This native species is more like the Himalayan *Gerardinia diversifolia* with similar very prominent bristly stinging hairs that cause more and longer-lasting pain than the other species mentioned. Since I regularly see plenty of *U. ferox* on Banks Peninsula I decided to "give it a go". Apart from having too thin gloves on when I collected some young tops all went well, but I still prefer the texture of *U. urens* for eating. Interestingly it was only after eating ongaonga that I met a Maori who said that he had also eaten it. Now I see that in his 1981 book "A Field Guide to the Native Edible Plants of New Zealand" Andrew Crowe warns against *U. ferox* because of its poisonous stinging properties although extolling the virtues of eating the native *U. incisa*. Also I see that my late colleague Ruth Mason recommends cooking the latter species like spinach. But I am reluctant to eat other native nettles, not because I think that they would be anything other than delicious, but because they are often rare or uncommon and should not have to cope with human as well as stock browsing. Even some populations of both *U. urens* and *U. ferox* on Banks Peninsula I browse gently so that I leave plenty for the caterpillars of our beautiful native butterflies the Red and Yellow Admirals.

A small quite incidental discovery that I made about *U. ferox* was that when the young tops are kept in a damp plastic bag in the 'fridge for a few days, as I do other greenery that is not for immediate consumption, they lose virtually all their stinging capacity. Yet they appear just as fresh as when they were put in, including those long, white, rigid bristles, but they could be handled almost with impunity. This was definitely not the case with tops that were kept outside the 'fridge.

So perhaps I should concentrate on eating *U. urens* in Christchurch and since according to the March Newsletter there is a crop that will need harvesting before long in St Albans, you may well have a neighbour visiting you soon Anthony. But for a final note to emphasise the link between nettles and that special breed of humans called botanists I must end with a quote from the 1975 edition of "Potter's New Cyclopaedia of botanical drugs and preparations" concerning nettles; "...the herb makes a nice botanic beer". An idea to liven up future botanical society camps perhaps?

Acknowledgments
Firstly I thank Anthony Wright for his note on Betty Molesworth Allen and in reproducing the recipe for "botanist' creamy nettle soup" that set me thinking, as well as his willingness to check that this rather whimsical article was not too outrageous for the New Zealand Botanical Society. I am very grateful to Betty Frost of Prebbleton for letting me loose in her extensive collection of herbal and medicinal literature going back to the 1600s with some truly amazing ideas about plant uses between then and now. I am also indebted to Diane McKinnon of Footprints Tours, Nelson, who is such a fount of knowledge about all things Nepalese, especially concerning the Sherpas. Finally I acknowledge Peggy's ability to so often provide the right turn of phrase when I am still groping for it, as well as to take on board the eating of nettles herself.

Bill Sykes, 115 Packe Street, St Albans, Christchurch 8001.

▪ A note on some attitudes in New Zealand botany

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Over the last few years a trend has developed in the *New Zealand Journal of Botany*, with certain authors treating my publications in a rather unusual way. For example:

> Heenan et al. (1996) named a rare new *Mazus* without mentioning that I had already described, illustrated and mapped the species and recognised it as new (Heads 1994a).
>
> Wagstaff & Wardle (1999) revised the whipcord hebes and discussed morphology and architecture of the group without citing my own paper on the topic (Heads 1994c).

Rogers & Overton (2000) wrote on regional patterns of plant diversity in southern New Zealand but did not cite the only other recent paper on this topic (Heads 1997), which even had a similar title.

Dawson & Beuzenberg (2000) wrote that "According to M. Bayly and P.J. Garnock-Jones (pers. comm.) *Hebe crawii* [Heads] may be referable to *H. dilatata'*, without mentioning the only published discussion of these two species (Heads 1992).

Wagstaff & Garnock-Jones (2000 Fig. 4) presented a cladogram of the *Hebe* complex in which the major clades are labelled with generic names (*Hebe*, *Heliohebe* etc.) where available. The basal New Zealand clade (*H. cupressoides*, *H. cheesemanii*) is conspicuously not labelled, even though later in the text the authors admit that these species would form a genus, *Leonohebe* Heads (Heads 1994b).

Bayly et al. (2000) revised *Hebe parviflora* s.l. and published distribution maps very like the only others ever published for the species (Heads 1993), but neither this work nor my account of evolutionary biogeography in the group (Heads 1989), a topic Bayly et al. discussed at length, were cited.

Garnock-Jones et al. (2000) claimed that my sectional names in *Hebe* were made without reference to earlier legitimate names, but did not cite my discussion of this topic (Heads 1994c) and ended up using my sectional classification anyway (placing their new species in *Hebe* sect. *Subdistichae* Moore ex Heads – again without citing the author). Bayly et al. (2002) also worked on sect. *Subdistichae*, again, without citing my treatment of the group (Heads 1993).

Heenan (2001) claimed that he 'tested' my revision of *Olearia virgata* (Heads 1998). He reanalysed the species using just six characters which he claimed I recognised as diagnostic. In fact the characters he used (leaf length, leaf width etc.) are of little significance in the group, and the characters I did actually recognise as diagnostic (degree of shoot apex abortion, branch flexibility, branch recurvature, silver sheen of leaf tomentum, etc.) are simply not mentioned. It is hardly surprising that he found no evidence for my subspecies. Elsewhere, the simplistic vegetative characters Heenan uses to define groups result in grossly inflated taxa such as the monotypic '*Montigena*' (Heenan 1998a) (= *Swainsona*), which is not distinguished by any flower or fruit characters, not supported by DNA studies (Wagstaff et al.1999), and not recognised in Australia where all the other *Swainsona*s occur. Conversely, Heenan (1998b) has sunk *Notospartium* Hook.f., *Chordospartium* Cheesem. and *Corallospartium* J.B. Armstrong as straight synonyms in *Carmichaelia*, although in molecular studies the sampled members of these genera emerged as basal to *Carmichaelia* (Wagstaff et al. 1999).

Despite the apparent bias against my work evident in the papers referred to, other New Zealand botanists of the highest standing cite my work quite normally, whether in agreement or disagreement, and sometimes even quote it favourably at length (Galloway 1994). In the light of these revelations the reader will not be surprised to learn that most of the work I have submitted for publication in the *New Zealand Journal of Botany* (including anything more than bare species descriptions) has been rejected outright, although subsequently accepted by leading international journals overseas (e.g. Heads 1990, 1999).

This strange treatment is probably not directed at me because of personal reasons, but because I support a method of analysis, Croizat's panbiogeography, which the authors cited appear to be desperate to suppress at any cost. This work was developed by a small group of New Zealand biologists through the 1980s and 1990s (e.g. Craw et al. 1999) and over the last few years has started to enjoy wide international recognition, for example in a major work on South American biogeography dedicated to Croizat (Llorente Bousquets & Morrone 2001). Other recent panbiogeographic studies include those of Grehan (2001), Heads (2001, 2002, in press), Morrone and Llorente (2003) and Luna-Vega et al. (2001).

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Research Request

- **Grasses needed to complete chromosome counts for the New Zealand family Poaceae (nom. altr. Gramineae)**

Brian Murray, School of Biological Sciences, The University of Auckland, Private Bag 92019, Auckland; **Peter J. de Lange**, Science & Research Unit, Department of Conservation, Private Bag 68908, Newton, Auckland

Earlier (Murray & de Lange 2002) we made a request for live samples of New Zealand grasses. Thanks to the collecting efforts of Brian Molloy, Kelvin Lloyd, Brian & Chris Rance, Dean Baigent-Mercer, Shannel Courtney, David Norton, Jim Clarkson, Nick Singers and Colin Ogle thus far we have received samples of many of the desired taxa. We are very grateful to the people who have helped so far, as thanks to their and our collecting efforts, our attempt to complete a survey of the chromosomes of the New Zealand indigenous grasses is that much closer to being achieved. However some 47 taxa are still outstanding (or, as in the case of those *Chionochloa* and *Festuca* listed below we need to try again!). As before, we still want living samples or fresh seed of the taxa listed below. In general, grasses are easily dug up and transplanted and just a few tillers with the leaves trimmed and a small amount of root ball can usually be transplanted. However, because of Auckland's humid climate and warm winters many of the southern species will not flower. Therefore we add a further request that (if at all possible) a flowering/fruiting voucher should be collected as well, and posted along with the fresh samples (or lodged at your nearest herbarium). Full collections details will be needed, and please make sure you have permission to collect your samples.

We appreciate this is a **big ask**, especially as our grasses are not everybody's "*cup of tea*", can be frustratingly difficult to identify, elusive and fickle. But we feel that it's worth the asking – because you never know what might show up. We have been pleasantly surprised already!

As before all contributions will be fully acknowledged in due course.

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List of grasses needed to complete chromosome counts for the New Zealand indigenous vascular flora (47 taxa).

Agrostis imbecilla
A. oresbia
A. subulata
Cenchrus caliculatus
Chionochloa cheesemanii
C. crassiuscula subsp. *crassiuscula*
C. crassiuscula subsp. *directa*
C. crassiuscula subsp. *torta*
C. defracta
C. pallens subsp. *pallens*
C. rigida subsp. *amara*
C. rubra subsp. *occulata*
Deschampsia gracillima
D. pusilla
Festuca luciarum
F. ultramafica
Hierachloe cuprea
H. fusca
H. recurvata
Lachnagrostis elata
L. glabra
L. pilosa subsp. *nubifera*
L. tenuis
Lepturus repens var. *cinereus*
Poa acicularifolia subsp. *ophitalis*
P. antipoda
P. aucklandica subsp. *rakiura*
P. celsa
P. incrassata
P. intrusa
P. maia
P. schistacea
P. senex
P. sublimis
P. sudicola
P. tonsa
P. xenica
Puccinellia walkeri subsp. *antipoda*
P. walkeri subsp. *walkeri*
Rytidosperma corinum
R. merum
R. nudum
R. pulchrum
R. viride
R. tenue
Stenostachys deceptorix
Zotovia acicularis

Report

- **New Zealand Threat Classification System update**

Rod Hitchmough, Biodiversity Recovery Unit, DoC, P O Box 10-420, Wellington

About two years ago I published in the Botanical Society Newsletter a request for information on threatened native plants as a preliminary to a new listing of threatened biota of all types in New Zealand. The documents describing the New Zealand Threat Classification System (Molloy et al. 2002; Threatened Species Occasional Publication 22), and listing the taxa identified as threatened or data deficient (Hitchmough 2002; Threatened Species Occasional Publication 23) were published at the end of 2002. The initial print run immediately sold out, but a reprint is currently under way.

For the vascular plants, the panel (largely derived from the former threatened plants committee) which produced the list of threatened vascular plants for Hitchmough (2000) subsequently prepared a manuscript for refereed publication in the New Zealand Journal of Botany. The original intention was that this should come out at much the same time as Hitchmough (2002) and contain the same listings. However, delays in preparation of the NZJBot manuscript meant that some updates were necessary, and when published, this list will therefore replace the Hitchmough (2000) list for the vascular plants only.

The DOC documents can also be accessed on the internet, and the lists are available as an excel spreadsheet, which is easier to search for individual species. This spreadsheet is shortly to be merged into DOC's BIOWEB database, expanding BIOWEB's coverage to a much broader range of species, and making the threat classification system listings more accessible and easy to search. BIOWEB is also to become internet-searchable in due course. The BIOWEB records will be updated with new information as it comes to hand. These updated records should be regarded as containing the most authoritative information.

Please note that with the publication of these new lists, the Molloy and Davis (1994) A, B, C etc. categories and de Lange et al. (1999) lists have become obsolete, and should no longer be used. DOC has chosen to use the New Zealand system internally - any discussion of species status should refer first to its status in the New Zealand system. IUCN status, for those species which are listed, can obviously also be discussed, but it should always be clear that internal decisions will be made with respect to the local system. However, for species with international distributions, particularly those listed in the New Zealand system as coloniser, migrant, or vagrant, the IUCN status will be most relevant.

To access the documents via the internet, open the DOC website then follow the following series of links: Publications ⇨ Science & Research ⇨ Biodiversity Recovery Unit Publications ⇨ Threatened Species Occasional Publications ⇨ Numbers 22 & 23.
http://www.doc.govt.nz/Publications/004~Science-and-Research/Biodiversity-Recovery-Unit-Publications/index.asp#occ-pub

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Research Report

- **Review of recently published new genera, reinstatements and combinations for subtribe *Pterostylidinae* (Orchidaceae) (New Zealand taxa only)**

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Introduction

Jones et al. (2002) in a further contribution toward a revision of the Australasian Orchidaceae have provided a new interpretation of the taxonomic and nomenclatural status of members of subtribe *Pterostylidinae*. The paper most relevant to New Zealand botanists is the third section of Volume 4 of *Australian Orchid Research – A review of Pterostylis (Orchidaceae)* (Jones & Clements 2002). Because this publication is not widely available in New Zealand, I have prepared the following summary of their publication for those who might be interested.

Generic Changes affecting New Zealand *Pterostylis* sens. lat.

Reinstated Genus

***Diplodium* Sw.** (*Ges. Naturf. Freunde Berlin Mag. Neuesten Entedeck, Gesammten Naturk 4*: 84 (July 1810)
Type species: *Disperis alata* Labill. *Nov. Holl. Pl. 2*: 59 (1806)
= *Pterostylis* R.Br. sect. *Foliosae* G.Don in Loudon's *Hortus Brittanicus* 369 (1830). Lectotype species: *Pterostylis grandiflora* R.Br. *fide* Jones & Clements (2002)
≡ *Pterostylis* R.Br. sect. *Alatae* Rchb.f. *Beitr. Syst. Planz.* 68-70 (1871). Lectotype species: *Pterostylis alata* (Labill.) Rchb.f. *fide* Jones & Clements (2002).
= *Pterostylis* R.Br. sect. *Antennaea* Benth., *Flora Australiensis 6*: 353-354 (1873). Lectotype species: *Pterostylis grandiflora* R.Br., *fide* Jones & Clements (2002).
= *Pterostylis* R.Br. sect. *Antennaea* Benth. ser. *Grandiflorae* Benth. *Flora Australiensis 6*: 353-354 (1873). Lectotype species: *Pterostylis grandiflora* R.Br., *fide* Jones & Clements (2002).
COMMENTS: A primarily Australian genus of 38 species, three species of which are endemic to New Zealand, while a fourth, *D. alveatum* is apparently a recent colonist from Australia.

New Zealand Species

***Diplodium alobulum* (Hatch) D.L.Jones, M.A.Clem. et Molloy**
≡ *Pterostylis trullifolia* var. *alobula* Hatch, *T.P.R.S. N.Z. 77*: 244, t. 30, fig. 3E-H (1949)
≡ *Pterostylis alobula* (Hatch) L.B.Moore, *N.Z.J.Bot. 6*: 486, fig. 3 (1969)
Endemic

***Diplodium alveatum* (Garnet) D.L.Jones, et M.A.Clem.**
≡ *Pterostylis alveata* Garnet, *Victorian Naturalist 59*: 91-94 (1939).
= *Pterostylis crypta* Nicholls, *Victorian Naturalist 61*: 207-208, (1948)
Indigenous

***Diplodium brumalis* (L.B.Moore) D.L.Jones, M.A.Clem. et Molloy**
≡ *Pterostylis brumalis* L.B.Moore *N.Z.J.Bot. 6*: 485, (1969)
Endemic

***Diplodium trullifolium* (Hook.f.) D.L.Jones, M.A.Clem. et Molloy**
≡ *Pterostylis trullifolia* Hook.f. *Fl. N.Z., 1*: 249 (1853).
= *Pterostylis rubella* Colenso, *T.P.N.Z.I. 18*: 271 (1886)
= *Pterostylis trullifolia* var. *gracilis* Cheeseman., *T.P.N.Z.I. 47*: 46 (1915)

New Genus

***Hymenochilus* D.L.Jones et M.A.Clem.**, *Austral. Orch. Res. 4*: 72 (2002)
Type species: *Hymenochilus muticus* (R.Br.) D.L.Jones et M.A.Clem
≡ *Pterostylis mutica* R.Br. *Prodr.* 328 (1810)
= *Oligochaetochilus* D.L.Szlachekto Subgen. *Grabrichilos* D.L.Szlachekto, *Polish Bot.Jour. 46(1)*: 23 (2001) *pro parte*. Type species *Hymenochilus cycnocephalus* (Fitzg.) D.L.Jones et M.A.Clem. (≡ *Pterostylis cycnocephala* Fitzg. *Aust. Orchids 1(2)*, t. 7. (1876)).

COMMENTS: A primarily Australian genus of nine species, two of which are endemic to New Zealand.

New Zealand Species
***Hymenochilus tanypodus* (D.L.Jones, Molloy et M.A.Clem) D.L.Jones, M.A.Clem et Molloy**
≡ *Pterostylis tanypoda* D.L.Jones, Molloy et M.A.Clem. *Orchadian 12(6)*: 273-274, fig. 6 (1997)
Pterostylis cycnocephala auct .non. Fitzg.; Hatch, *T.P.R.S.N.Z.I 79*: 323-7 (1953)
Pterostylis mutica auct. non R.Br.; Cheeseman *T.P.N.Z.I. 15*: 300 (1882)
Endemic

***Hymenochilus tristis* (Colenso) D.L.Jones, M.A.Clem et Molloy**
≡ *Pterostylis tristis* Colenso *T.P.N.Z.I. 18*: 271 (1886)
Pterostylis mutica auct. non R.Br.; Cheeseman *T.P.N.Z.I. 15*: 300 (1882)
Endemic

New Genus

***Linguella* D.L.Jones et M.A.Clem.**, *Austral. Orch. Res. 4*: 74 (2002)
Type species: *Linguella nana* (R.Br.) D.L.Jones et M.A.Clem
≡ *Pterostylis nana* R.Br. *Prodr.* 327 (1810)
COMMENTS: A primarily Australian genus of five species, one of which is apparently endemic to New Zealand.
subgen. *Linguella* sect. *Linguella*
COMMENTS: Three species are recognised for this subgenus.

New Zealand Species
Linguella puberula (Hook.f.) D.L.Jones, M.A.Clem. et Molloy
≡ *Pterostylis puberula* Hook.f. *Fl. N.Z. 1*. 249 (1853)
Pterostylis nana auct. non R.Br.; Rupp, Victorian Naturalist 49: 152 (1949)
?Endemic

Maintained Genus

***Plumatochilos* D.L. Szlachekto**, *Polish Bot. J. 46(1)*: 22 (2001).
Type species: *Plumatochilos barbatum* (Lindl.) D.L.Szlachekto
≡ *Pterostylis barbata* Lindl. *Bot. Reg. 25*, (1840)
COMMENTS: *Plumatochilos* was described in a perfunctory manner by Szlachekto (2001). Jones et al. (2002) with appropriate amendment have retained this primarily Australian genus. One species is shared with New Zealand
sect. *Plumosa* D.L.Jones et M.A.Clem., *Austral. Orch. Res. 4*: 80 (2002), Type species: *Plumatochilos plumosum* (Cady) D.L.Szlachekto (*Pterostylis plumosa* Cady)
COMMENTS: A section of three species, one of which extends to New Zealand.

New Zealand Species
***Plumatochilos tasmanicum* (D.L.Jones) D.L.Szlachekto**, *Polish Bot. J. 46(1)*: 23 (2001).
≡ *Pterostylis tasmanica* D.L.Jones, *Muelleria 8(2)*: 190-191, fig. 2k-l (1994).
Pterostylis squamata auct. non R.Br.; Hook.f.., *FL. N.Z. 1*: 249 (1853)
Pterostylis barbata auct. non Lindl.; Cheeseman *T.P.N.Z.I. 7*: 352 (1874)
Pterostylis plumosa auct. non Cady; Johns et Molloy *Native Orchids of New Zealand* 45 (1983)
Indigenous

Additional Comments

The remaining New Zealand species of *Pterostylis* are retained within an amended circumscription of that genus. Aside from those species treated by Moore & Edgar (1970), there have been several subsequent publications describing new species. So for completeness I have listed below the species of *Pterostylis* currently accepted by Jones et al. (2002) for New Zealand. Aside from those species described after the Flora 2 orchid treatment, one new combination and those reinstatements made by Jones et al. (2002), I have not provided full citations and synonymies for the species. These are provided in Flora 2 (Moore & Edgar 1970) or by Jones et al. (2002).

subgen. *Pterostylis*
COMMENTS: A subgenus of at least 11 species, of which only one species, the common Australian *P. nutans* has been recorded from New Zealand

New Zealand Species
***Pterostylis nutans* R.Br.**
Indigenous

subgen. *Cucullatae* (Rchb.f.) D.L.Jones et M.A.Clem., *Austral. Orch. Res. 4*: 65 (2002)
≡ *Pterostylis* Sect. *Cucullatae* Rchb.f. *Beitr. Syst. Pflanz.* 68-69 (1871). Lectotype species: *Pterostylis cucullata* R.Br.
COMMENTS: A subgenus of at least 22 species, of which seven (six endemic) are known from New Zealand.

New Zealand Species
***Pterostylis foliata* Hook.f.**
Indigenous

***P. humilis* R.S.Rogers**
Endemic

***Pterostylis micromega* Hook.f.**
Endemic

***Pterostylis oliveri* Petrie**
Endemic

***Pterostylis paludosa* D.L.Jones Molloy et M.A.Clem.**, *Orchadian 12(6)*: 271-272, fig. 4 (1997)
= *Pterostylis furcata* var. *linearis* Hatch *T.P.R.S.N.Z. 77*: 243, t. 29, fig. 2f-j (1949).
Endemic

***Pterostylis porrecta* D.L.Jones, Molloy et M.A.Clem.**, *Orchadian 12(6)*: 272-273, fig. 5 (1997).
Endemic

***Pterostylis venosa* Colenso**
Endemic

subgen. *Graminifoliae* D.L.Jones et M.A.Clem., *Austral. Orch. Res. 4*: 66 (2002).
Type species: *Pterostylis banksii* A.Cunn.
COMMENTS: An endemic New Zealand subgenus of 13 described species. However, other variants currently placed within broad circumscription's of *P. banksii*, *P. graminea*, and *P. montana* may yet be worthy of taxonomic recognition

New Zealand Species
***Pterostylis agathicola* D.L.Jones, Molloy et M.A.Clem.**, *Orchadian 12(6)*: 266-267, fig. 1 (1997)
= *Pterostylis graminea* var. *rubricaulis* H.B.Matthews ex Cheeseman *Man.N.Z. Fl.* 351 (1925)
= *Pterostylis montana* var. *rubricaulis* (H.B.Matthews ex Cheeseman) Hatch *nom. inval.* Hatch, *T.P.R.S.N.Z.77*: 240 (1940).
Endemic

***Pterostylis areolata* Petrie**
Endemic

***Pterostylis australis* Hook.f.**
Endemic

***Pterostylis banksii* A.Cunn.**
Endemic

***Pterostylis cardiostigma* D.Cooper**, *N.Z.J.Bot. 21*: 97 (1983)

Endemic

***Pterostylis cernua* D.L.Jones, Molloy et M.A.Clem.**, *Orchadian 12(6)*: 267-269, fig. 2 (1997)
Endemic

***Pterostylis graminea* Hook.f.**
Endemic

***Pterostylis irsoniana* Hatch**
Endemic

***Pterostylis irwinii* D.L.Jones, Molloy et M.A.Clem.**, *Orchadian 12(6)*: 269-271, fig. 3 (1997)
Endemic

***Pterostylis montana* Hatch**
Endemic

New Combination Subgen. Graminifoliae

***Pterostylis silvicultrix* (F.Muell.) Molloy, D.L.Jones et M.A.Clem.**, *Austral. Orch. Res. 4*: 66 (2002)
≡ *Pterostylis banksii* var. *silvicultrix* F.Muell., Veg. Chatham Is. 51 (1864).
COMMENTS: As far as is known this species is endemic to the Chatham Islands.

Reinstated Species Subgen. Graminifoliae

***Pterostylis auriculata* Colenso**, *T.P.N.Z.I. 22*: 489 (1890)
COMMENTS: This is the species described and illustrated by St George (1999; P. 122, fig. 123), as *Pterostylis* "Catlins".
Endemic

***Pterostylis patens* Colenso**, *T.P.N.Z.I. 18*: 270 (1886)
COMMENTS: A very common species previously treated as a synonym of *P. banksii* (see Moore & Edgar 1970)
Endemic

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Moore, L.B.; Edgar, E. 1970: Flora of New Zealand, Vol. 2. Wellington, Government Printer.
Szlachekto, D.L. 2001: Genera et Species Orchidalium. 1. *Polish Botanical Journal 46*: 11-16.
St George, I. 1999: The Nature Guide to New Zealand Native Orchids. Auckland, Godwit Books (Randon House).

BIOGRAPHY/BIBLIOGRAPHY

- **Biographical Notes (50) : William Smith Hamilton (c. 1824-1903) and William Stewart Hamilton (floruit 1879-1887)**

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This note had its origin about 14 years ago in a quest for W.S. Hamilton, after whom species of *Gunnera, Tillaea,* and *Tetrachondra* have been named. The first step was to study the six publications listed under "Hamilton, W.S." in the Author Index of the *Transactions and Proceedings of the New Zealand Institute* (1968). They are as follows (with added details from the titles):

1870 On the General Principles of an Education Scheme for New Zealand. T2: 196-197. By W.S. Hamilton, Mathematical Master, Wellington College and Grammar School. (Author's Abstract of Paper read before the Wellington Philosophical Society, 13 November, 1869).

1871 On the Gyration of the Wind in New Zealand, with its characteristics in the Various Quarters. T3: 303-306. By W.S. Hamilton (Author's Abstract) (Read before the Wellington Philosophical Society, 20 August, 1870).
1883 On the formation of the Quartz Pebbles of the Southland Plains. T15: 414-419. By W.S. Hamilton (Read before the Southland Institute, 9 May, 1882).
1885 Notes on the Occurrence and Habits of some of our New Zealand Plants. T17: 290-293. By W.S. Hamilton (Read before the Southland Institute, 13 May, 1884).
1886 On Platinum Crystals in the Ironsands of Orepuki Goldfield. T18: 402-404. By W.S. Hamilton (Read before the Southland Institute, 26 January 1886).
1887 Notes on the Geology of the Bluff District. T19: 452-455. By W.S. Hamilton (Read before the Southland Institute, 21 January, 1886).
[In the last 2 papers both reading dates are wrong. The papers were read during 1885 as noted below.]

With hindsight one can see that these 6 titles are in 2 groups, differing in their subject matter and separated by 12 years. Indeed, as shown below, there are two authors represented under this name, a confusion that has probably arisen because they not only bear the same surname and initials but also lived in the same town at the same time for several years. The first two titles (1870, '71) are from the pen of William *Smith* Hamilton, a foundation master at Wellington College, who later moved to Invercargill and taught there; and the other 4 publications (dated 1883, '85, '86, '87) were written by a William *Stewart* Hamilton who also lived in Invercargill. He was on the committee of the Southland Institute, and had an interest in geology and botany.

The separate identity of the 2 W.S. Hamilton's is shown in the Electoral Rolls from 1882 to 1887 where they appear together, e.g. Electoral District of Invercargill, 1887:
#623 Hamilton, William Milne, residential, Invercargill, law clerk [son of the following]
#624 Hamilton, William Smith, freehold, Invercargill, gentleman, Section 18, Harewood."
#626 Hamilton, William Stewart, freehold, Invercargill, gentleman, Section 5, Block 29, Invercargill."

Although W. Smith Hamilton was not a botanist I have included details of his life and descendants in this note so that he and they are clearly distinguished from W. Stewart Hamilton and all the other Hamilton's.

William Smith Hamilton (c. 1824-1903)
W. Smith Hamilton was born at West Calder, near Edinburgh, c. 1824, the son of John Hamilton, a farmer, and Janet Hamilton (born Alexander). After passing through the Edinburgh Training College, Hamilton emigrated to Australia where he taught at the Geelong High School, Victoria. At age 36 (c. 1860) he married Mary Milne at Geelong, where their only child, William Milne Hamilton, was born c. 1861 (1, 2, 3).

Hamilton seems to have left Geelong for Wellington without any definite position to come to. In any case there was no proper secondary school when he arrived. At the suggestion, therefore, of Mr Bowden, Inspector of Schools for the Province, Hamilton and the Rev. H.E. Tuckey (B.A. Cantab.) began a private school called "The Wellington Grammar and Commercial School" which opened on 4 February, 1867. This evolved into the Wellington Grammar School in early 1868 with Tuckey taking Classics and Hamilton Mathematics (2).

On 13 November 1869 and 20 August 1870, Hamilton gave the 2 lectures to the Wellington Philosophical Society listed above. In 1869 his son enrolled at the school and continued until November 1873 when Hamilton resigned in protest against proposed teaching arrangements until a newly appointed headmaster arrived from England (2).

Hamilton then took his family south, presumably because he owned land in Invercargill. In 1870 *The Southland Provincial Gazette* had announced: "Crown Grant, Wm S. Hamilton, Section 8, Block XIII Invercargill Hundred" (Ap. 8, Vol. 8, No.3) (12); and in 1875 Hamilton's son, William Milne Hamilton, was at Otago Boys High School (4).

1875-76 First mention in Wises NZ Directory : simply "Hamilton W. Smith".
1876 (22 Dec.) : "Masonic Scholarship. The examination of pupils in the Grammar School for the above took place yesterday in the school room [2 boys]. Mr Hamilton acted as

examiner in arithmetic and mathematics, the arithmetical questions being mainly in trigonometry, and next day Rev. Mr Paterson in algebra and Latin" (*Southland Times*).

1877 (19 April) : "Announcement. Mr W.S. Hamilton will open his new Academy, Nith Street, as a superior school for boys, on the 1st of May. The essential subjects, with Latin, as a basis of English, and Euclid, as a model of reasoning, will constitute the course. Algebra, Trigonometry, French, and German will be charged as extras. Terms C 2 Guineas per Quarter. Extras C 5s Each Additional" (*Southland Times*)

1877-78 Electoral District of Invercargill. "Hamilton, William Smith, Invercargill. Freehold and Leasehold. Sections 12 and 13, Block 4, Invercargill".

1877-78 Following the introduction (Nov. 1877) of an Education Bill under Sir George Grey aimed at establishing a uniform state education system, the Waianiwa committee nominated 9 people, including a W.S. Hamilton, for the 9 seats available on the Southland Education Board. (This does not necessarily mean that Hamilton lived at Waianiwa, which lies just to the north of Invercargill.) The nominations from the province totalled 20 and Hamilton was not elected (5).

Two further decisions affecting provincial education might also have disappointed Hamilton. In 1878 the new Board appointed Mr Peter Goyen, a teacher from Victoria, Australia, as Inspector of Schools, Southland; and in 1881 Mr George Blanchflower, an assistant master at Geelong Grammar School, Victoria, was appointed headmaster of the new Southland Boys High School.

W. Smith Hamilton is not in the Invercargill Electoral Rolls for 1878-79, 1879-80 and 1880-82, but he and his son reappeared in the Rolls from 1882 to 1887 as noted above. They then moved to Waimate, South Canterbury, where both were listed in the 1890 Electoral Roll, with William Smith as "residential" and William Milne as "solicitor". William Smith Hamilton died here on 9 May 1903, *aet.* 79, and was buried in the Waimate Cemetery.(1). On 13 May the *Southland Times* announced in an editorial comment: "The death is announced today of Mr W.S. Hamilton, a worthy gentleman and erudite scholar who, until about 18 years ago, made Invercargill his home, and was highly esteemed by the older generation. He was a man of simple tastes, an ardent student of literature, and a keen critic."

William Milne Hamilton later became a partner in the law firm of Raymond, Stringer, Hamilton and Donnelly in Christchurch where he was a member of the Canterbury Philosophical Institute, and lived at 54 Dyers Pass Road. He died at home on 26 November, 1933 and was buried at Waimate (3). His son, Archibald Milne Hamilton, was born at Waimate in 1898, and graduated BE at Canterbury College in 1925. In a remarkable book (6,7) he described his work for the Iraq Public Works Department in 1928-32 when he supervised the construction of a road through the mountain gorges of Kurdistan to the northern Persian plateau. He died in England in 1973.

William Stewart Hamilton (fl. 1879-1887)

I do not know anything about W. Stewart Hamilton's life before or after he lived in Invercargill; and he could have remained confused with William Smith Hamilton were it not for two occasions when his name was published in full. These were the Electoral Rolls mentioned above and Wises NZ Directory for 1885-86. The latter lists "Hamilton, William Stewart, Secretary Southland Institute, Esk St. Invercargill", and this gives us the clue to the authorship of the second group of papers. There is always only one W.S. Hamilton mentioned in membership lists of the Southland Institute or newspaper reports of its lectures, and this must be W. Stewart Hamilton and not W. Smith Hamilton. (There are also scattered newspaper references to a W.S. Hamilton as a member of the Invercargill Athenaeum. The letter mentioned below shows that this was William Stewart Hamilton.

1879–80 Electoral District of Invercargill. "Hamilton, William Stewart, Invercargill. Freehold and leasehold. Section 5, Block 29, Invercargill

1880–81 "Hamilton, William S., Avenal township, Invercargill" (Wise & Co., NZ Directory). (William Smith Hamilton was not in Invercargill at this time).

1880 (14 Jan): A letter dated thus from Invercargill and signed "W.S. Hamilton" is held at the Museum of New Zealand (8). It sends thanks from the committee of the Invercargill Athenaeum for a set of photos of the Sydney Exhibition. It also states: "I have been making some discoveries of late on which I will write you a paper when my experiments are completed." The letter has no addressee (simply "Dear Sir") but there can be little doubt that it was sent to Sir James Hector, Director of the

Geological Survey and Colonial Museum in Wellington. In 1879 Hector had been appointed executive commissioner to the Sydney Exhibition (9) and he was also editor of the *Transactions of the New Zealand Institute* to whom papers were sent for publication. Hamilton was concerned with the experimental formation of gold nuggets from material containing gold such as the Orepuki black sand.

1880 (25 May): A meeting of 8 people affirmed that "there be formed in this district a society devoted to the promotion of Science, Philosophy, Literature and Art" and that "the Society be named the Southland Institute" (T13: 462). The school inspector, Goyen, was present (10) and W. Stewart Hamilton was probably there too.

1880 (3 August): At the second meeting Hamilton spoke on "Orepuki black sand" (T13: 462).

1880-82 Electoral District of Invercargill: "Hamilton, William Stewart. Freehold, Invercargill, gentleman. Section 5, Block 29, Invercargill"

1881 (11 Oct.): Meeting of the Southland Institute; W.S. Hamilton was elected Vice President for 1882 and Goyen Secretary (T14: 569).

1881(Dec.): "Mr W.S. Hamilton and Mr Goyen made the ascent of Rakiaua [Stewart Is.] during which they collected an *Aciphylla*, the first observed on the island, *Raoulia goyenii* and *Hymenophyllum rufescens*, the last being extremely rare and local." (T. Kirk T17: 214).

1882 (9 May): Meeting of the Southland Institute; W.S. Hamilton spoke on the formation of the quartz pebbles of the Southland Plain and was elected to the council for 1883 (T15: 545).

1883 (17 July): Meeting of the Southland Institute; W.S. Hamilton spoke on the "physiology of plants and tree life" (T16: 571).

1883 (16 Oct): Meeting of the Southland Institute; W.S. Hamilton spoke on the "coal and lignite deposits of Southland" and was elected Secretary for 1884 (T16: 571).

1884 (13 May): Meeting of the Southland Institute; W.S. Hamilton presented "notes on the occurrence and habits of some of our New Zealand plants" (T17: 467). In the resulting paper (T17: 290-293) Hamilton published names suggested by Thomas Kirk for novel plants found by Hamilton (*Tillaea hamiltonii, Gunnera hamiltonii*); but it was several years before these plants were properly described and the names validated (see Eponymy).

1884 (8 July): Meeting of the Southland Institute; W.S. Hamilton spoke on the "lignine origin of the quartz pebble beds of Southland: and was elected Secretary for 1885 (T17: 467).

1884 (9 July): The *Southland Times* reported: "Mr W.S. Hamilton followed with an able and elaborate paper on the lignine origin of the quartz gravel, illustrating his subject by a great many curious specimens. This was Mr Hamilton's second subject on the same theme."

1884 (25 July): "The lignine origin of the quartz gravel deposits. We have much pleasure in presenting to our readers Mr W.S. Hamilton's paper on the above subject, read at the last meeting of the Southland Institute. This paper is a sequel to one published in the *Transactions of the New Zealand Institute, Vol. 15*, on the same subject." (*Southland Times*).

1885(no dates): Meetings of the Southland Institute; during this year W.S. Hamilton spoke on the "discovery of a crystal of platinum in the Orepuki black sand." as well as on the "geology of the Bluff District" (T18: 486).

1885 On 28 January 1886, at the AGM of the Invercargill Athenaeum, it was reported that W.S. Hamilton had attended 14 committee meetings [in 1885]. He was not present at the following committee meetings: 4 Feb; 25 Feb; 18 March; and up to 5 April.

1885-86 Hamilton, William Stewart, Secretary Southland Institute, Esk Street, Invercargill (Wise's NZ Directory, 1885-86).

1886 (27 Jan): The *Southland Times* reported that Dr Galbraith was nominated President of the Southland Institute but he proposed as an amendment "that Mr W.S. Hamilton be elected" but that gentleman declined the honour upon the grounds that he would probably be absent from town during most of the session. In this year W.S. Hamilton is listed as a member but gives no talks or holds no office (T19).

1887 Electoral district of Invercargill. "Hamilton, William Stewart, freehold, Invercargill, gentleman, Section 5, Block 29, Invercargill."

1887 W.S. Hamilton, Albion Hotel, Dee Street (Stone's Directory).

1887 (8 Nov.): Meeting of the Southland Institute; W.S. Hamilton spoke "on the Tarawera eruption"; there were no elections for 1888 (T20: 473). The *Southland Times* reported next day

that "the object was to review some of the theories of the origin, for example by Mr Smith, Assistant Surveyor-General, who expressed the opinion that the origin of the eruption was deep-seated, which Mr. Hamilton combated."

1887 (21 Nov.): Not mentioned as present at the AGM of the Athenaeum (*Southland Times*).

1887 (8 Dec.): Not present at Athenaeum (*Southland Times*).

In 1888 and 1889 there is no report from the Southland Institute in the Transactions, but a membership list is still published which includes W.S. Hamilton (T21, 22); but by 1890 and 1891 there is neither report nor membership list (T23, 24). I could not find any reports of Hamilton's death.

Other searches

In trying to find out where W. Stewart Hamilton came from and where he went to, I advertised in "Tracing your Ancestors" (*The Star* Sunday Supplement, Dunedin, 26 Sept. 1999), but had no replies. And in trying to find out Hamilton's relation to the geological, mining, or prospecting world of those times I enlisted the help of Dr. W.A. Watters, lately NZ Geological Survey; but, despite patient search, nothing was unearthed. I also checked the following:

1. The *Otago Witness* for 21 October 1882, announced the marriage "on the 21st August, at Sandridge, Melbourne, of William Stewart, eldest son of W.D. Hamilton, to Mary, eldest daughter of William Copeland of Oamaru – both of this city" (11). Search at the Melbourne Registry showed that the groom was a "fireman" on a steamer with an undecipherable name and that the bride was a "servant".
2. *The New Zealand Mail* for 13 March, 1885, announced a presentation to a Mr W. Hamilton (12), but he had been librarian at the Wellington Athenaeum for 7 years, was returning to the Old Country, and was obviously not our man.

William Stewart Hamilton is still, therefore, something of a mystery. Dr Watters gained the impression, after studying his papers, that Hamilton was not a professional scientist. On the other hand, he was no ordinary prospector or miner. He was the author of four well-written papers in the *Transactions of the New Zealand Institute*, he wrote to Hector and Kirk, he owned a piece of land, and he was a respected member of the Invercargill Athenaeum and the Southland Institute. Perhaps he was some kind of mining consultant or mineral surveyor; perhaps he was an alchemist and a gentleman; perhaps this note will persuade others to join the search.

Eponymy

1885 *Tillaea hamiltonii* mentioned as "T. Kirk n.sp." by W.S. Hamilton *Trans. N.Z. Inst. 17:* 292.

1885 *Gunnera hamiltonii* mentioned as "T. Kirk n.sp." by W.S. Hamilton *Trans. N.Z. Inst. 17:* 292.

1892 *Tetrachondra hamiltonii* Petrie ex D. Oliver *Icones Plantarum* t. 2250.

1895 *Gunnera hamiltonii* T. Kirk *Trans. N.Z. Inst. 27:* 347.

Acknowledgments

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PUBLICATIONS

Journal Received

New Zealand Native Orchid Group Journal No. 86 – March 2003
Edited by Ian St George [ISSN 1170-4543]
Original paper in this issue: Bruce Irwin – Updating the *Nematoceras (Corybas) rivularis* imbroglio.

New Zealand Native Orchid Group Journal No. 87 – June 2003
Edited by Ian St George [ISSN 1170-4543]

CORRIGENDUM

My apologies to Rhys Gardner for the spelling mistakes in his Letter to the Editor. In paragraph 2 the sentence should read "...no player can afford *not* to..."; in paragraph 3 "non simper" should read "non semper"; in paragraph 10 "Nothofacaceae" should be "Nothofagaceae"; and in the last paragraph "bough" should read "bought".

Strange capital letters in Eric Godley's Biographical Notes are a result of programme incompatibility; usually I find them all and I apologise to Eric for missing some.

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